ALLEN+CLARKE

EVALUATION OF THE NEW ROAD USER CHARGES SYSTEM

EVALUATION CYCLE ONE FINAL REPORT AUGUST 2013





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EXECUTIVE SUMMARY

The new Road User Charges (RUC) system

In early 2012 the *Road User Charges Act 2012* was passed, which provided for a number of substantial changes to the RUC system. These include a change to the definition of licence weight, removal of the time licence system and modernisation of the list of exempted vehicles, the development of a regulatory framework for electronic management systems and improvements to enhance RUC compliance. These changes came into effect from 1 August 2012.

Evaluation objectives

The broad objective of the evaluation is to examine the extent to which the overarching objectives for the new system (efficiency, equity, integrity, and cost recovery) have been achieved. Under this, the evaluation has been framed around a number of specific outcomes that were expected from the modernised RUC system:

- increased understanding of the RUC system
- reduced compliance costs for operators
- revenue neutrality within groups of vehicles
- reduced administrative complexity for government
- reduced evasion
- improved effectiveness and efficiency of recovery of unpaid RUC
- simplified enforcement of RUC
- reduced late payment
- improved efficiency in vehicle use
- enhanced RUC system through the use of electronic management systems.

The evaluation aims to examine the development and implementation of the new RUC system, document the initial impacts, and identify key lessons that can be used to improve the ongoing delivery of the new RUC system.

Methods

The evaluation involved multiple information sources and mixed methods, including:

- review of documents on the RUC system
- review and analysis of RUC data
- key informant interviews with government and industry groups
- online survey of transport operators
- case studies of various transport operator groups.



Key findings

Development and implementation of the changes

The communication of the new RUC system to operators and industry stakeholders was largely effective. In particular, the Ministry's early engagement with commercial transport industry associations and operators during the development of the changes was very well received. Several key informants and case study operators praised the efforts and approachability of the Ministry and the NZTA staff in consulting with them and resolving any issues.

The information provided by the Ministry and the NZTA was generally considered useful and effective for establishing understanding of the changes. The Ministry and the NZTA's joint communication strategy relied heavily on industry associations; an approach that took advantage of the associations' pre-existing communication channels and knowledge of road user groups' particular interests and concerns, and meant that the Ministry's messages could be tailored to be more relevant and understandable to different road user groups.

On the whole, the new RUC system is well understood by operators and industry stakeholders. Many operators understand the new system and believe it is simpler than the previous one. Most transport operators spoken as part of this evaluation acknowledged the need for change and noted that the rationale for the new system and the basis of the fee schedule was clear and simple.

Most operators incurred an initial one-off transition cost, related to time spent familiarising with the new RUC system, calculating the financial implications of the changes, and changing RUC licence labels. The cost of this effort was generally accepted to be expected and reasonable.

Initial impacts of the changes on transport operators

At an individual operator level there has been no significant reduction in the costs of RUC compliance for most operators. Since the implementation of the new system, the time spent by operators on ongoing RUC administration has not changed significantly, as many transport operators were already purchasing RUC at a set weight. The small number of operators that frequently adjusted their RUC weight nominations under the previous system have reported minor savings due to the implementation of set weight bands. At the transport sector level, small savings have been achieved through the removal of supplementary and time licences and adjustments to the structure of RUC administration fees.

In line with expectations, vehicles that normally operate at a weight significantly lower than the legal maximum experienced an increase in RUC, while vehicles that usually operated at or slightly above the legal maximum in one direction and unladen in the other experienced a slight decrease. The most severely affected vehicles are those that have a high maximum legal weight and carry 'light and bulky' loads, such as furniture, groceries and courier items, or vehicles that have a high gross vehicle mass (GVM) but do not carry loads, such as motorhomes that are converted buses. Operators that have experienced a decrease in RUC rates tend to be those operating vehicles that load to the Vehicle Dimension and Mass (VDAM) maximum, typically those carrying bulk solids and liquids, such as aggregates, logs and fuels or chemicals.



There is a perception that the new system is fairer and more credible than the previous one. This view is based on the view that the changes to the system have reduced RUC evasion and helped to ensure that all operators are meeting their RUC obligations.

There has not been a significant impact on the way in which operators use their vehicles. Most commercial transport operators were already loading and using their vehicles as efficiently as possible, and had not been able to make any changes in response to the RUC changes.

There is some evidence of better load distribution related to combination vehicles. Under the new system the actual weight of the individual component vehicles that comprise a "combination" no longer affects the RUC payable. This means that there is greater flexibility in the way the load can be distributed and operators can make loading decisions based on factors such as convenience, access, or to distribute the weight in a safer way.

There is evidence that operators are considering RUC when making decisions on vehicle purchases, but it is not the main consideration. Other factors such as safety and efficiency, practicality and productivity were considered of greater importance.

There is a reasonably widespread expectation amongst the transport operators that the national vehicle fleet would shift from four-axle to three-axle trucks as the RUC rates on three-axle trucks have reduced under the new system. However, we were able to find very few examples of operators actually making these purchases; as noted above, other considerations generally took precedence over RUC. Any change to the vehicle fleet is likely to be very slow and it is therefore too early to draw any strong conclusions as to whether the RUC reforms have led to a change in the composition of the vehicle fleet. The sectors of the transport industry that are most likely to see a change in vehicle types are passenger transport and motorhomes, with a move away from importing older heavier vehicles with high GVMs, which are now less RUC efficient. This trend was likely to occur due to changes to emissions standards, but may be reinforced by the RUC changes.

Since amendments were made to the RUC regulations in 2010 to enable the use of electronic distance recorders the uptake of electronic RUC has steadily increased, with over 12,000 vehicles having been issued a RUC licence by electronic system providers. The main barrier to greater uptake of electronic RUC systems is cost. Many transport operators, particularly those with small fleets and owner/drivers, viewed the current cost as prohibitive. The majority of these operators did, however, see the benefits in electronic RUC, and stated that they would be likely to eventually move to an electronic system, particularly if the price reduced. If post-payment of RUC was made available, this was also highlighted as an incentive to move to electronic RUC.

Initial impacts of the changes on government

Comparison of expected revenue per kilometre by vehicle type, as determined at the time the new charges were set, compared to actual revenue, suggests that on a per kilometre basis the changes are broadly revenue neutral.

There is a strong perception among the NZTA staff, NZ Police staff and operators that evasion has decreased, largely due to the elimination of opportunities for weight-based evasion. NZ Police data estimating the percentage of RUC evasion amongst heavy vehicles shows that the percentage of weight-and distance-based evasion has dropped from 4.0% in 2012 to 1.2% in 2013. The bulk of this is likely to



be overrunning the distance on the RUC licence which is recoverable and therefore may be better described as late payment.

Ongoing government RUC administration costs have slightly reduced. This has been achieved through the introduction of binding assessments which has removed the need for a protracted negotiation process with transport operators as well as the need to go through the court process to recover unpaid RUC. Minor time savings have also been achieved through the removal of the time licence and supplementary licence systems.

Analysis of NZTA RUC revenue shows that the amount invoiced has significantly increased. However, to date only 14% of the invoiced total has been recovered. The NZTA has now amended some of its processes, including the wording on invoices and reducing the threshold at which debt is invoiced. This may increase the proportion of debt collected.

Initial impacts of the changes on NZ Police

The NZ Police has indicated that enforcement of RUC is simpler due to the removal of weight-based evasion. This has meant that the emphasis of CVIU procedures has shifted from RUC compliance to safety.

Removing the need to prosecute minor offences through the District Courts has also resulted in efficiencies for NZ Police. The new licence display requirements and infringement offences relating to not having a properly working distance recorder, have achieved savings for the NZ Police as they no longer need to go through a District Court process. In addition, NZ Police reported "taking a lot of criticism" for wasting District Court time with relatively minor offences and felt that the changes have had the benefit of increasing NZ Police credibility with the courts.

Recommendations

Based on the findings of the evaluation of the new RUC system, we have identified a number of recommendations relating to the ongoing delivery of the new RUC system:

- 1. the system be allowed to continue to bed down and no major changes should be made
- 2. the Ministry and the NZTA clearly communicate their position on the issue of RUC liability at the 1.5 tonne VDAM enforcement tolerance
- 3. consider creating an additional vehicle type or types for larger motorhomes
- 4. investigate the use of technology to move some RUC processes from a manual to electronic format
- 5. investigate post-payment of electronic RUC
- 6. consider:
 - a. including provisions for more flexible use of combination licensed vehicles
 - b. removing the discount from combination licences.



1 INTRODUCTION

The Ministry of Transport (the Ministry) appointed Allen and Clarke Policy and Regulatory Specialists Ltd (*Allen + Clarke*) to evaluate the new Road User Charges (RUC) system. The Ministry is interested in learning from the development and implementation of the changes to the RUC system to inform adjustments or improvements to its ongoing implementation. This report presents the findings of the first cycle of evaluation, which was undertaken between December 2012 and June 2013.

1.1 Purpose

There are three main purposes for the evaluation:

- to measure the effectiveness of the new RUC system in progressing towards the stated objectives and outcomes of the changes
- to compare the effectiveness of the modernised RUC system to the previous system
- to provide evidence to inform any adjustments to the system.

Many of the outcomes and impacts that are expected to be achieved through the modernised RUC system will become apparent over the longer term (i.e. within three to five years). The Ministry is therefore planning to undertake three cycles of evaluation of the new RUC system. This evaluation cycle (cycle 1) focuses on the development and implementation of the RUC changes, but is also cognisant of early impacts on both users of the system and on those who administer or enforce the system. As part of addressing this purpose, the evaluation:

- provides evidence about the new RUC system's implementation, outputs and outcomes, including factors underpinning success and barriers to success
- provides an initial evaluative judgement about the efficiency, equity, cost recovery and integrity of the modernised RUC system
- provides recommendations to enhance the RUC system.

Evaluation cycles 2 and 3 will increasingly focus on achievement of the objectives and expected outcomes of the changes.

1.2 Audience

The main audiences for this evaluation are the Ministry of Transport, the New Zealand Transport Agency (the NZTA), the NZ Police, commercial operators and industry groups. As the government's principal transport adviser, the Ministry of Transport's interest in the RUC system covers policy, legislation and regulation, reviewing and setting RUC levels, performance and accountability, and managing the relationship between the government and the NZTA.

The NZTA, as the RUC collector, provides administrative and accounting services, including the issuing of RUC licences, collection of RUC, processing of RUC refunds, and the maintenance of a RUC information database. The NZTA also delivers detection of RUC evasion and debt recovery services, including targeted investigation programmes to identify evasion and non-payment of RUC revenues, the auditing



of operators' records to validate refund claims, the recovery of evaded revenue, and industry liaison and education to ensure compliance.

The NZ Police provide support in enforcing the RUC system through roadside checks of vehicles and RUC licences, and the issuing of infringement notices.

The transport industry, including commercial operators and industry groups, is also a major stakeholder in the evaluation. While this report in its entirety may not be relevant to this audience, there is likely to be significant interest in specific evaluation findings, and it will be important to ensure that key findings are disseminated to the industry.

1.3 Structure of this report

The remainder of this report is structured as follows:

- Section 2 provides a background of the key changes to the RUC system
- **Section 3** sets out the evaluation methodology, including the overall approach to design, the evaluation objectives and questions, and the specific methods
- Section 4 presents the main evaluation findings organised under the headings of each of the nine expected outcomes set out in the evaluation objectives
- **Section 5** includes concluding comments on the evaluation findings, and our recommendations for the ongoing implementation the new RUC system.



2 BACKGROUND AND CONTEXT

The RUC system was established in 1978 as a means of collecting taxes from the users of diesel vehicles for roading purposes. The charges are intended to recover a range of costs associated with providing and maintaining roading infrastructure, as well as activities such as public transport operating subsidies and road safety policing. Most of these costs are the same for all vehicles. However, charges for heavy vehicles vary considerably, reflecting differences in the estimated road wear caused by vehicles of different weights and with different numbers of tyres and axles.

An independent review of the RUC system was carried out over 2008-2009, which examined the Ministry's cost allocation model and considered options for collecting revenue from diesel vehicles by way of road user charges compared to potential alternative methods. The review report¹ included a number of recommendations related to cost allocation and revenue collection. Some of these recommendations related to legislative changes, while others were to be achieved through changes to the NZTA's administrative procedures.

On 14 February 2012, the *Road User Charges Act 2012* was passed to replace the *Road User Charges Act 1977*. The new legislation evoked the most significant changes that have been made to the RUC system since it was originally introduced in 1978.

The passing of the new RUC Act provided for a number of substantial changes to the RUC system, which came into effect from 1 August 2012. The changes are designed to modernise and simplify the RUC system for both government and industry, including lower compliance costs for transport operators and administrative costs for government, reduced RUC evasion and increased compliance with the RUC system. The changes are:

- a change to the definition of licence weight
- the reform of the time licence system and modernisation of the list of exempted vehicles
- a regulatory framework for electronic management systems
- improvement in compliance processes.

Further details of the changes are provided below.

2.1 Change to the definition of licence weight

The previous RUC system was based on the distance travelled and weight carried by vehicles. RUC weights were set in one tonne increments for each vehicle type, and vehicle operators were required to nominate a licence weight sufficient for the maximum weight of the vehicle at any time during the distance covered by the licence (generally 1000km). Operators could purchase supplementary licences to increase the licence weight for 50km at a time.

The key issues with this aspect of the previous system were:

¹ Road User Charges Review Group. *An Independent Review of the New Zealand Road User Charging System*, March 2009.



- it was difficult for operators to predict the vehicle weight and vehicle scales are not always available at loading sites so operators could unintentionally under or over-estimate weight
- there were high compliance costs for operators (related to the time required to determine correct licence weight and to purchase supplementary licences)
- it presented opportunities for operators to intentionally under-estimate weight to reduce their RUC liability
- it was difficult to recover outstanding RUC by making an after-the-event assessment of weight.

The operator nominated weight aspect of the previous system has been removed from the new system, which means there is also no longer a need for supplementary licences. Vehicles are now allocated a fixed 'RUC weight' which is the maximum permissible gross laden vehicle weight. This weight is the lesser of:

- the gross vehicle mass (GVM) assigned by the vehicle's manufacturer, or
- the maximum allowable weight for the vehicle as determined by the Vehicle Dimensions and Mass Rule 2002 (the VDAM Rule)².

For most vehicles up to 12 tonnes the RUC weight is determined by the GVM, whereas for larger vehicles the VDAM Rule usually sets a lower limit than the GVM.

Under the new RUC system charges vary by vehicle type (usually defined in terms of axle configuration) and RUC weight band. Each weight band covers a range of RUC weights and for some types (e.g. four axle trucks) there is only one charge for all weights. The charge for each vehicle type or weight band has been calculated to reflect the average licence weight previously nominated for the vehicles concerned. For example, the charge for all type two vehicles with RUC weights of over 9 and up to 12 tonnes is similar to the previous charge for a 9 tonne licence, as this was the average weight nominated under the previous system for vehicles of that type and maximum weight.

The licence weights nominated under the old system could vary widely for the same vehicle. For example, for vehicles with a 12 tonne GVM the nominated licence weights ranged between 6 and 13 tonnes. As a result, charges under the new system can be either considerably higher or considerably lower than paid for the same vehicle under the old system.

Under both the old and new RUC systems trucks and trailers each carry a separate RUC licence. However, the new system has introduced new 'combination' vehicle types that operators can opt to use for trucks and trailers used only in specific combinations. This is intended to reflect that a truck and trailer together will usually have a different maximum weight under the VDAM Rule than the sum of the allowable weights for the individual vehicles. There are also separate vehicle types for combination vehicles operating with overweight permits.

² The VDAM Rule specifies requirements for dimension and mass limits for vehicles operating on New Zealand roads. The Rule provides for a regulatory regime to ensure that vehicles, particularly heavy truck and trailer combinations, are operated safely.



2.2 Reform of the list of exempted vehicles and the time licence system

Under the previous system some vehicle types (such as forklifts, trailers with a gross laden weight of 3.5 tonnes or less, and farmers' vehicles used on the road only in connection with agricultural operations) were licensed for road use but exempt from RUC.

Whether a vehicle was eligible for an exemption was generally based on the way in which the vehicle was used, under which the main type of use was farming/agriculture. However, this system did not provide for an accurate estimate of the actual on and off-road travel for these vehicles. In addition, the distinction between vehicles that were exempt from RUC and those subject to time licences (see below) was arbitrary.

The list of vehicles exempt from RUC has been simplified. The changes are intended to modernise the approach to vehicle exemptions, so that it is based on vehicle design, rather than vehicle use.

Under the time licence system a small number of vehicles (such as various heavy machinery related to construction, forestry and road maintenance; and unregistered motor vehicles operating under trade plates) used time licences to travel on the road for a certain period of time. These vehicles were not exempted from RUC as they were considered to travel on the roading network more frequently than those that were exempt. However, the system had high administration costs in proportion to the revenue gained by government (i.e. the revenue-cost ratio was low), there were high compliance costs for operators and it added to the overall complexity of the system.

The time licence system has been removed from the new RUC system. Most vehicles that were previously subject to a time licence are now exempt from RUC. An additional annual charge has been applied to some vehicles, including tractors that operate at over 40km per hour on road and unregistered heavy RUC vehicles operating on trade plates. These charges are intended to ensure these vehicles contribute to roading costs.

2.3 Regulatory framework for electronic management systems

Under the previous system, companies wanting to become an electronic system provider of RUC had to obtain two levels of authorisation: to issue RUC licences, and approval of the electronic distance recorder (EDR) device. The NZTA would authorise the issuing of RUC licences, whereas EDRs were approved by the Ministry's Chief Executive. This meant providers needed to go through a dual process.

The changes to the system have introduced a single, composite approvals process. The new system also includes a statutory requirement for electronic system providers to collect and store RUC information, a code of practice for EDRs, display requirements which are set out in regulations (rather than statute) and therefore easier to update, and a requirement that the EDR must be produced by operators on demand.



2.4 Improvement in compliance processes

Since the operator nominated weight dimension of RUC has been removed from the new system, penalties for weight-based offences are no longer necessary. The penalties for distance-based evasion (i.e. vehicles overrunning the distance that has been purchased on their RUC licence or falsifying information about the distance travelled) have been updated to include more stringent penalties around odometer tampering and other dishonest practices, and a flat infringement fine for distance overrun.

Other regulations related to reducing distance-based evasion and late payment of RUC include requirements for operators to create, maintain and retain records, requirements for vehicle inspectors to report odometer readings to the NZTA as part of the Warrant of Fitness (WoF)/Certificate of Fitness (CoF) inspection process, and the introduction of a new assessment system for underpaid RUC in which the RUC collector conducts an inquiry and issues a binding assessment.



3 METHODOLOGY

This section sets out our approach to the evaluation, the evaluation objectives and questions, a summary of the information sources, methods and analysis, and an overview of the strengths and limitations of the evaluation.

3.1 Evaluation approach

The evaluation was intended to examine the development and implementation of the new RUC system. It aimed to document the initial impacts and identify key lessons that can be used to improve the ongoing implementation of the new RUC system.

The changes to the RUC system are still in the early stages of implementation, and the evaluation needed to recognise that the new system is still bedding in. The evaluation interacted with the system through regular engagement with key decision makers and those responsible for its implementation. The evaluation team met with these stakeholders at regular intervals, including an initial meeting with the Ministry to discuss and agree evaluation questions and expected outcomes, and mid project engagement to share preliminary evaluation results. The purpose of such engagement was to come to a shared understanding between the key stakeholders to inform future modifications and adjustments to the RUC system.

The evaluation considered both processes related to the implementation of the new RUC system, and initial or emerging outcomes and impacts. The process evaluation documented and analysed what happened during the development and implementation of the changes to the system, and is intended to provide an understanding of how the system operates and what factors influence outcomes or impacts. In addition, the evaluation considered the extent to which the expected outcomes of the RUC changes are being met, and the ways in which various elements of the new system are contributing to the outcomes. The data generated has informed our recommended changes to the implementation of the RUC system so that it can better meet its expected outcomes.

3.2 Evaluation objectives

In late 2011 several members of the evaluation team worked with the Ministry to develop a framework for the evaluation of the changes to the RUC system. The Ministry had already identified a number of overarching objectives for the new system: efficiency, equity, integrity and cost recovery. In addition, we worked with the Ministry to articulate a set of specific outcomes that were expected to be achieved through the modernised RUC system:

- increased understanding of the RUC system
- reduced compliance costs for operators
- revenue neutrality within groups of vehicles
- reduced administrative complexity for government
- reduced evasion



- improved effectiveness and efficiency of recovery of unpaid RUC
- simplified enforcement of RUC
- reduced late payment
- improved efficiency in vehicle use
- enhanced RUC system through the use of electronic management systems.

The evaluation has been framed around the extent to which these specific outcomes have been achieved. A set of questions was developed under each outcome, which is attached as Appendix A.

3.3 Information sources and methods

The information and evidence required to answer the evaluation questions was gathered from multiple sources and through multiple methods. These included:

- review of documents on the RUC system
- review and analysis of RUC data
- key informant interviews with government and industry groups
- online survey of transport operators
- case studies of various transport operator groups.

Further details of the methods are provided below.

3.3.1 Review of documents on the RUC system

We reviewed a series of documents provided by the Ministry and used the results to build up a description of the development and implementation of the RUC changes. The results of the document review were used to highlight key issues and assumptions that were tested through the survey, data review and engagement with operators. It also contributed to our analysis of the implementation processes of the new RUC system.

3.3.2 Review and analysis of RUC data

We developed a framework of indicators, sources and a description of what the relevant data can tell us, to inform an analysis of a range of data sources. These sources included NZTA revenue and transactional data and NZ Police data. While it is currently too early to determine any significant trends from the data, we gained some indications of what we might expect to see in the future and the framework that was developed can be used to undertake further analysis during later cycles of evaluation.

3.3.3 Key informant interviews

We interviewed informants from relevant government agencies as well as various industry groups with experience and expertise on the RUC system. The interviews collected qualitative information on the



changes to system, the expected outcomes, and the impacts on operators. The key informants interviewed included three Ministry of Transport staff, three NZTA staff, two NZ Police staff, two electronic management systems (EMS) providers and representatives from 10 transport industry associations.

3.3.4 Case studies

The evaluation included 10 case studies with transport operators, which were selected to reflect a range of transport industries and road users. The objectives of the case studies were to test the assumptions about impacts on operators, and to gather their perspectives on the extent to which the expected outcomes were being realised.

In most instances the unit of analysis for the case studies was a single firm or organisation. However in some instances, such as small owner-operators, a 'case' was comprised of up to three organisations in the same category of operator. The case studies of commercial operators included aggregates carriers, couriers, dairy carriers, food and grocery distributors, forestry carriers, furniture removers, general freight carriers, tour bus/coach operators and urban public transport operators. Overall, 37 informants were interviewed, including six owner-operators/drivers. The framework that was used to select the case studies is provided in Appendix B.

3.3.5 Online survey

The online survey was developed to test the assumptions and prevalence of views related to the new RUC system. The survey provided generalisable data that could be compared with the more detailed information gathered during the case studies and key informant interviews. Invitations to participate in the online survey were sent directly to operators and through various industry groups. The survey was live for a period of 4 weeks and received 1,340 responses. Of these, 980 respondents identified their main interest in RUC to be as a motorhome owner, 179 identified their main interest in RUC to be as a light diesel vehicle (LDV) owner, and 121 respondents identified their main interest in RUC to be in relation to commercial vehicles (operators, farmers, traders, industry representatives). Section 3.5 discusses how the large number of responses from motorhome owners was managed in the evaluation analysis. A copy of the survey instrument is provided as Appendix C.

3.4 Analysis

The analysis focused on synthesising and triangulating information from the various data sources and evaluation methods. We took an iterative approach based on grounded theory that allows themes and findings to emerge from the data.

Evidence to address each of the evaluation objectives was built up from a variety of data sources. We analysed qualitative information from interviews, case studies and literature, and corroborated key findings with quantitative information such as the NZTA RUC data and analysis of the survey data. We continually revisited our findings to check whether and how the supporting and relevant evidence fitted with the emerging findings.



In general, we considered data or evidence to be more valid when the analysis identified convergence in opinions and experiences across multiple sources, and therefore we gave it more weight. However, we recognise that the impacts of the changes to the RUC system vary in different contexts and for different operators and therefore have also reflected opinions and experiences that are not widely shared, but are illustrative of a particular situation or consideration.

3.5 Strengths and limitations

The main strengths of the evaluation approach and methodology are that it considers context, including how the changes to the RUC system have impacted a comprehensive range of transport sectors and groups. The case studies allowed us to collect context-rich information on a variety of operators and consider the impacts on operators of different sizes, sectors and regions around the country. The formative design of the evaluation allowed us to maintain frequent interaction with the Ministry and government stakeholders to support the ongoing implementation of the system.

The limitations of the evaluation methodology include that the case studies provide views and experiences based on a specific set of experiences and are therefore limited in their ability to provide generalisable data. We are also aware that the size of many of the commercial case study operators may be unrepresentative of the industry as a whole. Although we did seek to interview a number of owner-operators and smaller companies, the larger companies appeared to have a greater capacity to participate in the evaluation. As the case studies tended to include relatively well established organisations, it is probable that the case study operators were more likely to be compliant (or at least claim to be compliant) than the industry as a whole. This may have influenced the evaluation findings on evasion, which was largely based on operators' perceptions rather than specific examples of changes in behaviour.

The fact that 74% of survey respondents identified their main interest in RUC to be as a motorhome owner has limited the generalisability of the data collected. We have mitigated this limitation in several ways. In analysing the data, respondents were split into two categories: commercial transport operators and non-commercial transport operators (of which 80% are motorhome owners and 14% are light diesel vehicle owners). Where the responses of motorhome owners are significantly different from the responses of other non-commercial transport operators, we have further divided non-commercial transport operators (of which 80% are motorhome owners and other non-commercial transport operators, of other non-commercial transport operators, we have further divided non-commercial transport operators (of which 80% are light diesel vehicle owners).

As expected in an early stage evaluation which largely focused on implementation and processes, the timing of the evaluation has meant that our findings on the impacts are limited. It has also meant that full year-end financial and transactional data was not available for the evaluation. We were provided with interim monthly data and used this to inform our evaluation findings. However, annual data would have allowed for more rigorous review and year-on-year comparison, and all conclusions drawn are subject to this caveat.



4 KEY FINDINGS

The following sections address the key findings of the evaluation in relation to each of the nine expected outcomes of the new RUC system (as listed in section 3.2).

4.1 Understanding of the RUC system

This section describes the effectiveness of the communication of the changes to the RUC system to operators and stakeholders. It then describes how well each of these stakeholder groups understands the new system.

4.1.1 Communication of the new RUC system to operators and industry stakeholders was effective

Effectiveness of communication methods

There was an iterative process of communication and consultation whereby the Ministry engaged with stakeholders to both present information about the changes, and receive and respond to industry feedback. A joint communications strategy was developed by the Ministry and the NZTA, which outlined key audiences, messages and responsibilities for communicating the changes to the RUC system. The strategy included a range of methods for communicating and engaging with operators and industry stakeholders. These included: the Ministry and NZTA websites, which provided factsheets, a RUC calculator, application forms, and frequently asked questions; establishing an email address and 0800 number for RUC related queries; a nationwide roadshow; and media releases.

Information related to the proposed policy changes was posted on the Ministry of Transport website, including the results of the 2008/09 Road User Charges Review, Cabinet papers, documents of questions and answers related to the changes, and, initially, the RUC calculator. The RUC information on the website received a significant amount of traffic, with total 'hits' outnumbering any other topic on the website at the time the new charges were announced in June 2012. This suggests that there was a high level of interest in the changes and that there was a strong desire amongst transport operators for further information.

In general, the NZTA website resources were not seen as effective as they could have been because of the density and detail of information provided. A number of operators stated that it was difficult to search through the website to find relevant information, and were still confused about aspects of the changes after reviewing it. Information about the changes is weaved into the existing links. Within the 'about RUC' link, there was some information about the changes and another link to the RUC handbook, which contains an overview of the new system. There needed to be a more user-friendly interface with the key information about the changes provided in clear and easily accessible format. For example, it may have been more effective to create a new, highly visible link to a one-page description of the changes that assumes prior knowledge of the previous system and compares the differences.

The nationwide roadshow took place in June and July 2012 and visited most major cities and towns. Transport operators in each area were invited to attend. This was one of the more effective communication methods, comprehensively addressing and explaining the changes. Operators found it useful to be able to engage directly with the Ministry and ask questions about aspects of the changes



they found confusing. However, some operators mentioned that a number of the questions raised were not answered and felt that the information provided changed as the roadshow progressed. This is likely because new content was added to respond to questions which arose as the roadshow continued, or due to difficulty in clarifying some aspects of the system, particularly around enforcement issues. However it did lead to some confusion among operators. Some informants from both the NZTA and the Ministry felt that the roadshow may have been more effective in achieving "grassroots" consultation if it had been held earlier. It is noted that the roadshow was not intended as a consultation process, but rather as a means to communicate information about the changes. The timing of the roadshow was also impacted by delays in passing the new regulations; there was little point conducting the roadshow before key pieces of information, such as the new rates, were available.

The email address and 0800 number were specifically set up for RUC related enquiries and administered by the NZTA. In addition, a number of operators directly contacted the Ministry of Transport. A large number of queries were received immediately after the changes were implemented, but this has reduced significantly since November 2012. Operators that had used the services found the NZTA and the Ministry to be helpful and responsive to their queries.

Information about the changes was also announced in media releases from the office of the Minister of Transport. However, this information was of greater interest to industry associations than operators.

Effectiveness of communication channels

There were a number of key stakeholder groups that the Ministry consulted with from the beginning of the change process. This included the Road Transport Forum, the Automobile Association, the Motor Industry Association, the Motor Trade Association, Federated Farmers, the Bus and Coach Association and the Motor Caravan Association. The Ministry and the NZTA's joint communication strategy relied heavily on industry associations such as these to raise awareness of the changes and direct members to places where they could gain further information. This was an appropriate and effective approach that took advantage of industry associations' pre-existing communication channels and knowledge of road user groups' particular interests and concerns, and meant that the Ministry's messages could be tailored to be more relevant and understandable to different road user groups. The use of an intermediary channel also allowed the information to be more widely disseminated. The evaluation survey (see figure 1) indicates that over half of commercial and non-commercial transport operators heard about the changes through industry association correspondence and publications.





Figure 1: Method through which survey respondents heard about the changes to the RUC system

Based on information provided by key informant and case study participants, operators that are not members of any transport industry association or that do not have a direct relationship with the NZTA, were less likely to have been informed of the changes before they were implemented. Due to the "atomised" nature of the sector, many small contractors fit into this category. Their awareness of the changes often depended on the initiative of their employer, which has the relationship with industry groups or the NZTA, to educate them on the new system.

Non-commercial operators (such as owners of motorhomes and horse floats) were also less likely to be reached through official channels of communication, and as figure 1 illustrates, many found out about the changes through word of mouth or 'other', which included RUC agents and WoF certifiers. This was anticipated by the NZTA and memos on the changes were provided to RUC agents, such as VTNZ and NZ Post. However, an NZTA informant believed that more comprehensive training or information could have been provided as there were some issues with operators being unable to purchase the correct RUC because agents did not know what they needed.

Overall effectiveness of communication

Despite information reaching some groups through more indirect channels, such as word of mouth, the RUC evaluation survey showed that the level of awareness of the changes is high: 83% of private vehicle operators (largely motorhome owners) and 99% of commercial vehicle operators were aware of the changes.

Once initial awareness of the changes had been achieved, the information provided by the Ministry and the NZTA was generally considered useful and effective for establishing understanding of the changes. In particular, the Ministry's initial engagement with commercial transport industry associations and operators was very well received.

"[The Ministry] engaged with us at every step, we had every opportunity as an industry sector to work with them, they held public meetings around the country, [and] they were very responsive to every opportunity to explain [the changes]."

- transport industry association



Several key informants and case study operators praised the efforts and approachability of the Ministry and NZTA staff in communicating the changes to them and resolving any issues. For example, during the consultation process the Ministry was seen to respond well to the concerns from the passenger transport sector, introducing an additional weight band for type 2 vehicles to lessen the impact on passenger transport operators.

"You'd have to say it was quite good because they listened...it was [a] legitimate [concern], and they did listen, and they changed it."

passenger transport operator

After the initial consultation period, however, it appears that there was a waning in communication until the new system was prepared for implementation. It was perceived that, towards the end, the process was rushed and the detail of the changes was withheld from industry for too long. This was largely due to the fact that the regulations were not gazetted until mid June 2012, meaning that details that the operators were concerned about (such as the new rates and weight bands) were not available until this date. For some operators the perceived "secrecy" surrounding the new rates caused uncertainty and stagnation around investment decisions. They felt that the tight timeframe between the confirmation and implementation of the new system did not allow for sufficient time to make adaptations.

"We were stuck, based on the indicative rates, trying to make a decision about what to buy. We order our trucks for the next season, starting in August, [the previous] October. [We needed] clarity on what the new rules were going to do to our fleet configuration."

- commercial transport operator

There was also a perception that the inability of industry members to provide feedback in the later stages of development had contributed to oversights that could have been avoided. However, it is noted that the timing of the regulations meant that the Ministry was limited in its ability to undertake consultation on these.

4.1.2 The Ministry and the NZTA worked together to communicate the changes of the new RUC system to NZTA personnel and NZ Police

The Ministry and the NZTA worked in partnership to communicate the changes to the new RUC system to government stakeholders, including NZTA regional staff and NZ Police personnel. The Ministry developed a presentation which provided an overview of the new system, including the key changes and impact on NZTA operations, which was delivered to NZTA staff in regional offices. The NZTA provided indepth training on the changes to its contact centre staff. This appears to have been reasonably effective, however, Ministry and NZTA head office personnel did frequently receive queries from staff in the first few months of implementation. For example, one Ministry official received calls from operators who had been given their phone number by the NZTA call centre staff who could not answer the operators' questions. It was suggested that training of the NZTA staff could have been more effective if it took advantage of the knowledge of field staff who undertake RUC investigations at the regional NZTA offices.

The new system was communicated to NZ Police through meetings with the Ministry and NZTA's RUC project teams. This involved ongoing consultation throughout the policy development process. Both



Ministry and NZ Police personnel stated that the iterative and collaborative policy development process led to both parties being satisfied with the changes, and the investment of time had laid the foundation for the resultant improvements in NZ Police enforcement of RUC (see section 4.7).

Sergeant trainers worked with the NZTA and the Ministry to deliver a national training programme and reading materials to all NZ Police staff and specialist training to the Commercial Vehicle Investigation Unit (CVIU). This training was attended by Ministry staff to answer policy questions. NZ Police trainers felt that this training programme was particularly successful. Interviews with NZ Police personnel suggested that the simplified RUC system, coupled with the training, had created increased knowledge and awareness of RUC and a corresponding increase in RUC enforcement amongst the general highway patrol force, particularly in relation to light diesel vehicles. This is explored in greater detail in section 4.7.3.

4.1.3 The new RUC system is well understood by operators and industry stakeholders

Commercial transport operators' understanding and perceptions of simplicity

Many operators understand the new system and believe it is simpler than the previous one, although the transition to the new system caused some minor confusion. Of those surveyed, 93% of commercial vehicle operators, 71% of motorhome owners and 60% of other non-commercial vehicle operators said that they understood the new system at least moderately well. Understanding is greater for commercial operators because they interact with the system more often and have a strong business incentive to understand it. As one large transport operator said, "you've got to know the game to be able to maximise the benefits".

Throughout the interview process we were consistently told that the new system is "definitely" and "undoubtedly" simpler and easier to understand. The simplification of the new system is predominately due to the removal of the operator nominated weight dimension, and the introduction of vehicle weight bands. It is now easier for operators to calculate their RUC obligation as in the majority of cases RUC is based on a vehicle's GVM or VDAM limit. The removal of supplementary and time licences has also helped to reduce system complexities.

"You know for each individual truck, right from the outset, that the weight for that truck is what you pay your road users [charge] on; as opposed to purchasing a lesser value and purchasing supplementaries when you need to [under the previous system]. I can see the merit of doing what [the Ministry] has done, it makes that process simpler for everybody..."

- commercial transport operator

"There's less to understand now. Whereas before you needed to understand [the system] and manipulate it to your best interests, now you're just buying off the shelf. It takes less knowledge to understand it."

- commercial transport operator

Although the new system as a concept is simpler and easier to understand, many operators understood the previous system well and had adapted to its complexities. Many of the commercial transport operators we spoke to as part of the case studies were long-established and had had a significant



amount of time to gain an understanding of the previous system. Nevertheless, most acknowledged the need for change and noted that the rationale for the new system and the basis for determining the RUC rates was clear and simple.

A common view among operators that participated in the case studies was that if one was unfamiliar with both the previous and the new systems, they would understand the new one far quicker. In the future, the changes should result in increased overall understanding as new operators enter the market.

Non-commercial vehicle operators' understanding and perceptions of simplicity

The survey results show that 30% of motorhome owners and 39% of other non-commercial transport operators that responded to the survey answered that they did not understand the changes to the RUC system well or at all. Some caution should be taken in interpreting this result. During the case study interviews some non-commercial respondents recognised that the new system is simpler, but said that they did not understand why it needed to be changed. Their reported lack of understanding is an inability to reconcile with the objectives of the change, rather than an inability to understand the changes to the system itself. It is likely that the survey question may have been misunderstood in a similar way.

A 2010 survey of light diesel vehicle (LDV) owners³ found that many respondents were poorly informed about the RUC system. Interviews with relevant industry associations conducted during this evaluation suggested that owners of light diesel vehicles may have limited understanding of their RUC obligations. It was suggested that this is due to the lack of a commercial imperative to understand the system, the infrequency of RUC purchases, and the fact that many LDV owners had previously owned petrol vehicles which were taxed at the source. While we have not explored this issue in detail, as the changes to the RUC system in relation to LDVs have been minimal, the survey results do indicate a lack of understanding amongst this group. Around 40% of LVD owners stated that they did not understand the changes to the RUC system well or at all, while only 14% understood the changes well or very well. As above, this finding is likely due to not understanding the reasons for the changes or a lack of understanding of the RUC system more broadly, particularly as the new RUC system is very straightforward for light vehicles. Many LDV owners were not aware that there had been any changes to the system; 30% of LDV owners who responded to the survey did not know that changes had been made to the system in August 2012.

It was suggested that to date the majority of government communication had been directed at commercial operators and there may be value in developing an awareness campaign to educate non-commercial road users who are often used to a different system. Interviews with NZTA personnel indicated that there have recently been efforts to move to a more customer-focused model which prioritises education, rather than audit and investigation activities. This is likely to assist in increasing understanding of the RUC system amongst both commercial and non-commercial vehicle operators.

Understanding of vehicle types

The new vehicle type categories under the new system are generally well understood, particularly for individual vehicles or combinations weighing up to 44 tonnes. There were a few initial issues with the categories, but these have largely been resolved. For example, one large commercial transport operator

³ Research New Zealand A Survey of Owners of Light Diesel Vehicles, June 2010.



noted that there were some issues with the definition of trailer types 33 and 37⁴ in the initial schedule of vehicle types. The company perceived the mistake to be an oversight and praised the Ministry for solving the issue quickly, but felt that it caused "a lot of hassle".

The most significant areas of confusion and lack of understanding are in the upper and high productivity motor vehicle (HPMV) weight bands. There is uncertainty amongst operators of 44 tonne truck and trailer combination vehicles about their RUC liability if operating up to the 1.5 tonne VDAM enforcement tolerance. In the past, some commercial operators were intentionally loading to the VDAM tolerance to maximise their payload. Although theoretically this was an abuse of the tolerance, it had become an industry norm in some sectors. This has contributed to a lack of understanding because some operators were not aware that 44 tonnes, rather than 45.5 tonnes, had always been the maximum loading limit.

"People used to think that the tolerance to load to 45.5 tonnes was set in stone, and now that change has really made quite an impact to a lot of people ..."

- commercial transport operator

It is noted that the changes to the RUC system have not resulted in a change to the VDAM rules (which are provided for under the *Land Transport Rule: Vehicle Dimensions and Mass 2002*), and that any confusion on the part of transport operators is a misunderstanding of the VDAM tolerance, rather than the RUC system. Nonetheless, the changes to the RUC system have brought this issue to the forefront, as RUC weight bands are based on legal loading capacity. Ministry informants have stated that this issue was not identified until close to the implementation of the changes and there was little time for the Ministry and the NZTA to develop an agreed position, which may have contributed to confusion amongst operators. The Ministry and NZTA have recently developed operational guidelines which state their position that operators who intend to load to an on-road weight greater than normal limits must obtain a permit and must carry a RUC licence corresponding to this permit,⁵ other than in cases of inadvertent overloading. This is likely to reduce confusion as clear and consistent messages can now be provided to the sector.

The second complexity is the inability to decouple vehicles with RUC combination licences. Again, operators are unsure of their liability if they decouple combination licensed vehicles, particularly for short distances, such as taking the truck to a service depot or manoeuvring on tight farm or forestry roads. In response to this concern, amendments were made to the RUC regulations that make provision for unladen type H vehicles to carry, rather than tow, a RUC vehicle that ordinarily forms part of the combination vehicle, and for any powered vehicle that is defined as part of a specific combination to operate without a trailer when unladen. These changes took effect on 1 July 2013.

⁴ The initial schedule of vehicle types penalised some type 37 trailers that were used for the same tasks as type 33 trailers. This was amended by redefining some type 37 trailers as type 33.

⁵ Overweight permits may be issued for indivisible loads that are too heavy to fit the general mass limits of the Land Transport Rule: Vehicle Dimensions and Mass 2002. RUC must be paid on the full additional licence weight for the relevant weight band.



4.1.4 In general, the new RUC system is well understood by NZTA personnel and NZ Police

Evidence from key informants suggests that NZTA staff understand the changes to the RUC system. Initially, there were some areas that were not well understood and which required referral to the Ministry. However, understanding appears to have improved as staff interact with the new system. NZTA head office staff have also reported fewer enquiries from the Palmerston North regional office, which may be indicative of greater understanding of the changes and/or could be a result of less enquiries from road users.

A staff training advisor at NZ Police expressed that the new RUC system is in general easier to understand. He reported that NZ Police staff understand the basic changes but still need to regularly ask their managers questions. In particular, there is confusion dealing with more complex RUC circumstances, such as HPMV-permitted vehicles and vehicles in breach of the VDAM limit. Despite these challenges, overall understanding and ability to enforce the system has improved (see section 4.7: Enforcement of RUC).

4.2 Costs of RUC compliance for operators

This section describes the effect of the new RUC system on operators' administrative compliance costs and potential sources of cost savings.

4.2.1 There has been little impact on the costs of RUC compliance at an individual operator level

Since the implementation of the new system, the time spent by operators on ongoing RUC administration has not changed significantly. Ministry officials have noted that it was not expected that there would be a large impact on compliance costs at the individual operator level, and that any savings were expected to be across the transport sector (see section 4.2.3). However, interviews with transport sector stakeholders indicated that there was an expectation within the industry that the changes would result in compliance savings for road users. This may be due to the fact that information in the public domain did not indicate at what level the savings are expected to be achieved. For example, Cabinet Papers associated with the changes note that the removal of supplementary licences and move away from operator nominated weight are expected to reduce compliance costs for business,⁶ and the presentation slideshow delivered at the road show for transport operators lists "reduce compliance costs for road users" as one of the key aims of the Road User Charges Act 2012.

Most transport operators spoken to as part of this evaluation have not seen an impact on the time spent on RUC compliance. The survey showed that 68% of commercial transport operators found that RUC administration takes about the same amount of time as previously. It also found that only 9% of commercial operators reported a reduction in RUC administration; whereas 20% reported an increase. As none of the case study operators identified an increase in their time spent on ongoing RUC administration we are unsure where this additional time has been placed. It is likely that the survey respondents who reported an increase were accounting for the impact of the transitional costs of changing to the new system (e.g., time spent understanding the new system and changing RUC labels).

⁶ Road User Charges: Overview and Introduction to Legislation Proposals Cabinet Paper; Road User Charges: Change to the Definition of Licence Weight Cabinet Paper





Figure 2: Commercial transport operator survey respondents' views on how have the changes impacted on time spent on RUC administration under the previous and new systems

Most of the commercial operators who participated in the case studies also had not noticed any reduction in their time spent administering RUC. Larger operators typically spend 20-40 hours per week administering RUC, and smaller operators generally spend between 1-8 hours per week. The most time consuming RUC activities for operators without an EMS include applying for refunds and appealing the NZTA assessments of unpaid RUC, because both of these activities require manually reconciling records. Mailing physical RUC licences to offsite vehicles was also identified as a time consuming activity. The actual purchasing of RUC is seen to be very simple, under both the previous and new systems. Overall, operators did not perceive RUC administration to be particularly burdensome under either system.

Many of the operators that participated in the case studies previously purchased RUC at a set weight and therefore did not make any adjustments to their administrative processes. Carriers of light and bulky loads such as furniture and groceries, often purchased RUC based on their average load or the maximum load they expected to carry, unless the type of work they were doing changed, which was infrequent. Similarly, freight carriers generally purchased the same VDAM maximum weight because they did not know in advance how much they would be carrying. Carriers of bulk loads such as logs, liquids and aggregates also usually purchased to the VDAM maximum.

"We always knew that our trucks would need to run a 12 tonne sticker because [the load's] maximum weight wouldn't have exceeded that. If it did, or if we thought it would because we had to cart something heavy as a one-off, we would have gone and bought supplementaries."

-commercial transport operator

Another reason why there have not been significant reductions in RUC administration for operators is that, in most cases, operators' processes have not substantially changed with the introduction of the new system. Instead, many operators have merely adapted their old processes. The changes to the system have not generally compelled operators to streamline their internal processes and have not removed some of the most time consuming administration tasks, such as applying for off-road refunds.

We also explored whether operators had achieved a reduction in compliance costs through purchasing RUC less frequently and in larger increments, as they now did not have to adjust the weight at which



RUC is purchased. We found that amongst the case study operators this was not common for business cashflow reasons; transport operators did not want to "have lots of money sitting on the windscreen" (interview, commercial transport operator).

In terms of additional administration costs associated with the new system, most operators incurred an initial one-off transition cost. These costs generally included time spent familiarising with the new RUC rates, rules and vehicle types, calculating the financial implications of the changes, changing RUC licence labels, and for commercial operators, conveying changes to staff, contractors and clients, and adjusting prices and contract rates. Depending on the size of the operator, this could take up to a week or a month, but for most commercial operators it took one or two days. The cost of this effort was generally accepted as expected and reasonable.

The new record keeping requirements are also generally perceived to be reasonable. Most commercial operators found that the new requirements did not create any further work beyond what was considered good business practice. Some highlighted the increased onus to record more, but did not directly translate that to more effort.

4.2.2 Some operators have achieved a saving in compliance costs through not needing to adjust their nominated weight, and the removal of supplementary licences

Operators that have gained a reduction in their time spent administering RUC were generally the minority that, under the previous system, frequently adjusted their RUC weight nominations. These operators were generally those who travelled long distances on set schedules. An example of this was a passenger transport operator servicing long-distance routes and adjusting their daily RUC purchases based on the number of passenger bookings.

"With tours, you might have had 30-40 passengers going down as far as Wellington [from Auckland], and then the bus repositions empty. So we used to run down on a heavy [RUC] weight and get the driver to ring you up with what his hub reading was when he was leaving Wellington. I'd email through to [the administrator] to buy [RUC] at tare weight for the 600km to come back up.⁷"

- passenger transport operator

Some, generally large, operators have noticed a time saving in the number of transactions they make because they no longer need to purchase supplementary licences. However, this is a minor saving for most operators.

The reduction in the cost of RUC administration fees has also benefited individual operators, although the savings are more apparent at an industry level (see section 4.2.3).

Others have noticed the impact the removal of operator nominated weight has had on stabilising financial costs. Some of the commercial operators reported that differences in RUC purchasing across

⁷ As road user charges are calculated based on the assumption that vehicles run unladen approximately half the time (see section 4.3.2) transport operators who consistently purchased licences based on the vehicle's actual weight were technically underpaying, even though they were legally compliant.



their company could make pricing and costing complicated, and others described how RUC based on estimations could force costs to creep up.

"There wasn't a [company] standard as to what [RUC] you're going to have [on each type of vehicle], each branch did their own kind of thing. We had to make a generic price on it, [based on] the worst-case scenario rather than the best-case."

-commercial transport operator

"The old system had a bad habit of ballooning [costs] for a company...When a truck would change jobs the RUC would get changed for a week, and not get changed back...Over time as people buy [RUC] heavier the weights slip up, so your costs slip up. And as you buy more and more kilometres [worth of RUC] to cut down the amount of data entry you do, then it can get out of hand, financially. Which, the person sitting buying road users doesn't see."

-commercial transport operator

While there has not been a large saving in compliance costs for these operators, those who purchased RUC at a higher weight than their expected actual laden weight (in order to be sure of complying) paid an additional cost which has now been removed from the system.

4.2.3 Small savings have been achieved at the transport industry level due to the removal of supplementary licences and adjustments to the administration fee structure

Ministry officials have indicated that savings in compliance costs for operators were expected to be more apparent at the transport industry level, rather than for individual operators. A 2009 report providing economic advice on a number of reform options for the RUC system⁸ suggested that annual operator compliance costs would reduce from \$21.6 million to \$17.3 million; a saving of \$4.3 million. This was expected to be due to reduced costs through the removal of the supplementary licence system. As noted in the report, the expected overall savings are not substantial compared to the total value of RUC revenue; if fully realised, the \$4.3 million saving is equivalent to about 0.4% of the total \$1.092 billion RUC revenue collected in the 2011/12 financial year.

While it is difficult to determine the extent to which the \$4.3 million saving has been achieved, several large case study operators did report a small reduction in time spent on RUC compliance due to no longer needing to purchase supplementary and/or time licences. This triangulates with a 6% drop in the number of RUC transactions from August 2011 to April 2012 (prior to the changes) to the same period the following year. The reduction in transactions suggests an overall reduction in transport operator time spent on RUC compliance.

Further small savings in compliance costs have been achieved through adjustments to the structure of RUC administration fees. These changes are intended to better align administration fees with the true cost of providing the service and to remove the surplus revenue previously collected on these fees. In most cases, this has resulted in a fee reduction; for example GST-exclusive counter agent fees have reduced from \$8.50 to \$6.78 and internet fees have reduced from \$8.50 to \$4.17. Several new fees

⁸ Road User Charges Review Group, *Supplementary Report to Economic Advice in Respect of Road User Charges: Financial Modelling.* February 2009.



have also been added including charges for a replacement licence label and an application fee to change the RUC vehicle type.

Figure 3 shows a reduction in total administration fee revenue collected after the changes were implemented in August 2012. Some of the drop in revenue is likely to be due to the reduced transaction numbers mentioned above, with the remainder probably attributable to the adjustments to the fee structure.





4.2.4 Electronic RUC systems offer potential for savings in RUC compliance

The greatest factor contributing to reduced RUC compliance for operators appears to be the use of electronic RUC systems. The operators we spoke to generally agreed that these significantly reduce the time spent on RUC administration (see section 4.10). For some, the changes to the system have provided an additional impetus for switching to electronic RUC in order to reduce administrative burden, especially for operators that do a large amount of road work requiring RUC refunds; as noted above, this can be very time consuming.

"[Under the previous system our process] was very administratively time consuming for us, it had a lot of flaws, and relied a fair bit on guess work as far as purchasing the next block of road users... In August, when the road users regime changed somewhat, we thought now was an ideal opportunity to choose something electronic. So we have now gone electronic across the fleet."

- commercial transport operator



4.3 Revenue neutrality within groups of vehicles

This section addresses questions relating to whether the changes to the RUC system have been revenue neutral. It then analyses the impacts of the new system within different groups of vehicles and considers whether operators perceive the system as fairer and more credible.

4.3.1 The modernised RUC system appears to be broadly revenue neutral.

RUC rates are set based on the RUC cost allocation model. This is defined by the Ministry as "a financial model designed to share the costs incurred under the National Land Transport Programme in a given year between vehicles of different types, according to the differences in the costs they generate for the road network".⁹ The cost allocation model was reviewed over 2010-11 and minor changes were made to the model in March 2012.

The charges for each RUC vehicle type and weight band under the new RUC system were set based on the same cost allocation model as the previous system, and were estimated to raise the same amount of revenue for the National Land Transport Fund (NLTF)¹⁰. It was therefore expected that the changes to the RUC system would be revenue neutral.

Overall RUC NLTF revenue provides a high level picture of trends related to revenue (although not revenue neutrality). As shown in figure 4, total RUC revenue collected after the changes were implemented in August 2012 is broadly similar to that collected prior to the changes. The linear trend line shows a slight increase in total revenue from July 2011 to April 2013.



Figure 4: Total RUC NLTF revenue July 2011 – April 2013

⁹ Ministry of Transport website <u>http://www.transport.govt.nz/ourwork/Land/costallocationmodelreviewqandas/</u>

¹⁰ Road User Charges Bill 2010: Regulations Vehicle Types and Weight Bands: Proposals for Consultation



Consideration of overall revenue needs to account for a 4.1% average increase in RUC which took effect at the same time as the new RUC system was implemented in August 2012. This was a scheduled increase and was not linked to the changes to the system. Taking the theoretical assumption that other contextual factors (such as fuel prices and economic growth) remained the same as the previous year, revenue would be expected to have risen by 4.1%. Table 1 shows a comparison of month-by-month RUC revenue over the period August 2011 – April 2012 (prior to the increase) with revenue from the same months the following year (post increase). The table shows substantial variation in the percentage differences for each month (ranging from an 8.4% decrease to a 17% increase), with an average overall increase of 2.7%.

Prior to fe	e increase	Post fee increase		
Month	RUC revenue	Month	RUC revenue	Difference
August 2011	\$90,313,000	August 2012	\$106,168,000	17.6%
September 2011	\$93,791,000	September 2012	\$85,929,000	-8.4%
October 2011	\$92,182,000	October 2012	\$101,299,000	9.9%
November 2011	\$100,327,000	November 2012	\$99,256,000	-1.1%
December 2011	\$90,723,000	December 2012	\$90,843,000	0.1%
January 2012	\$85,792,000	January 2013	\$88,027,000	2.6%
February 2012	\$91,917,000	February 2013	\$89,393,000	-2.7%
March 2012	\$98,818,000	March 2013	\$96,403,000	-2.4%
April 2012	\$89,965,000	April 2013	\$93,911,000	4.4%
Average overall increa	2.7%			

Table 1: Monthly comparison of RUC revenue under the previous and modernised RUC systems

While total RUC NLTF contributions provide an overall picture of revenue trends, it is not a robust measure of revenue neutrality as the amount collected will be influenced by factors such as total vehicle kilometres travelled. RUC revenue per kilometre is therefore a more precise indicator of revenue neutrality.

The Ministry has stated that it has undertaken an analysis of RUC revenue per kilometre by vehicle type from January to May 2013, and compared this to the expected revenue per kilometre as determined at the time the new charges were set. Ministry officials have indicated that this analysis shows that on a per kilometre basis RUC revenue is 0.78% less than was expected. This suggests that, on a per kilometre basis, the changes are broadly revenue neutral. We recommend that this continues to be monitored as the changes become embedded.



4.3.2 In general, RUC rates for vehicles that operate at a weight significantly lower than their maximum legal weight have increased, whereas costs have tended to decrease for vehicles that carry maximum loads

Under both the new and old RUC systems, distance rates per 1,000km are calculated based on the assumption that vehicles run unladen about half of the time. Under the old system charges were set on the assumption that the average actual weight of a vehicle would be 55% of the licence weight purchased in the case of a powered vehicle or 45% for a trailer. The fact that vehicles purchased RUC to cover their maximum weight during the distance covered by the licence meant that vehicles which ran at constant weights were advantaged under the previous system. For example, a vehicle such as a two axel motorhome with an eight tonne constant actual weight that purchased RUC for this amount was only paying for the road damage costs associated with a vehicle weighing 4.4 tonnes on average.¹¹ Similarly, a freight operator running a 44 tonne truck and trailer fully laden at all times would only pay for the road damage associated with about half of that weight. However this situation would be very unusual as freight operators commonly run unladen, or partly laden, for a large percentage of their distance travelled.

Under the new system RUC distance rates are still based on the same average loading assumptions, but the rate that applies to a vehicle is now determined by its RUC weight rather than the actual weight (see section 2.1 above). So a two axle motorhome with an eight tonne actual weight and twelve tonne GVM is now charged a rate based on the average licence weight previously purchased for all similar vehicles with GVMs of over 9 and up to 12 tonnes (this weight was about 9 tonnes). This means that this motorhome would pay more RUC than under the previous system.¹² On the other hand, a motorhome with the same GVM and an actual weight of 10 tonnes will pay less. Both vehicles continue to be undercharged relative to their estimated road wear, although the heavier vehicle is advantaged by the change to the system, compared to the lighter one. With trucks, the comparisons are more complex, as vehicles with the same licence weights under the old system could generate widely varying road damage costs depending on average loading. In general, however, transport operators who are able to load to a higher proportion of their maximum allowable weight are advantaged by the new system compared to those who are only able to utilise a small proportion of weight capacity.

Changes in RUC under the previous and new systems for transport operators engaged with as part of this evaluation were in line with expectations; those with vehicles that normally operate at a weight significantly lower than the legal maximum experienced an increase in RUC, while those with vehicles that usually operated at or slightly above the legal maximum in one direction and unladen in the other experienced a slight decrease. The following discussion outlines transport operators' views of how the changes in the RUC rates have impacted them.

The survey shows that 69% of commercial and 76% of non-commercial transport operators reported an increase or significant increase in the cost of RUC. It is important to note that these responses are based on survey respondents' perceptions, and the reported cost increases have not been confirmed. As noted in section 4.3.1 the changes have been revenue neutral overall, which is likely to mean that about half of vehicle operators are paying less than they would have under the old system with a 4.1%

¹¹ Under the old system, the portion of an 8 tonne RUC licence for road damage costs was less than a quarter of the total RUC. This proportion increases as weight goes up, reaching about 60% for a 44 tonne truck and trailer.

¹² The actual increase would have been from \$94.68 to \$118, including the 4.1% revenue increase.



increase. It is likely that the costs reported by survey respondents were inclusive of the 4.1% average increase in RUC that was applied at the same time as the changes of the system. Further, as respondents are self-selected those who have responded to the survey may be more likely to be affected by the changes.



Figure 5: Survey respondents' perceptions of how the changes have impacted on the overall cost of RUC licence(s)

Of the operators that participated in case studies, about half perceived to have had significant increases in their RUC rates. The remaining half perceived that their RUC rates had either slightly decreased or remained the same. It is important to note that the case studies were selected as exemplars of particular impacts and this finding may not be generalisable to the broader commercial transport sector.

The amount of any increase varies depending on the vehicle and load type. As expected, the most severely affected vehicles are those that have a high maximum legal weight and carry 'light and bulky' loads, such as furniture, groceries and courier items, or vehicles that have a high GVM but do not carry payloads, such as buses that have been converted into motorhomes. Whereas previously these operators were purchasing RUC well below the vehicle's legal maximum, they are now required to purchase RUC at a significantly higher rate. Based on the estimates of the case study operators, this accounts for an average increase of around 20-40% of what was previously paid for RUC. Table 2 provides examples of the increases reported by case study operators. These are not representative of all operators, but help to illustrate the vehicle types and industries that are most affected.



Table 2: Reported estimated RUC increases of case study operators

Operator	Estimated increase (across fleet) ^a
Motorhome owner	44%
Small metro and general freight carrier	40%
Large furniture carrier	36%
Small furniture and clothing carrier	33%
Large grocery distribution carrier	33%
Large bulk liquid carrier	6%
Large general freight carrier	-4%

^a The percentages of estimated increases listed are based on anecdotal information, which has not been independently verified

The impact of the increases on operators varies depending not only on the size of the increase, but also on the ability to pass on or otherwise moderate costs. Commercial operators that perceived themselves to be in more competitive sectors believed it was difficult to pass on costs to end consumers because of the commercial disadvantage of increasing prices. Whereas others operating in sectors where the pricing structure and contractual arrangements enabled operators to explicitly identify and cover charges, appear to have found it easier to pass on costs. For example, a passenger transport operator reported that it had an escalation clause in its contract for urban work, and "for tours we just whack on a few extra dollars for each quote."

It is also more difficult for small operators contracted by large companies to adequately pass on substantial cost increases to end users. This was particularly the case with companies that applied a flat compensation rate to contractors based on the total RUC increase across the fleet, leaving those with higher than average increases to absorb much of the cost themselves.

Client expectation was also highlighted as a barrier to passing on cost increases. For example, one logging transport operator felt that because the forest owner to whom he was contracted knew that the changes to the RUC system were partially aimed at reducing compliance costs for operators, they expected to see the costs of transport decrease. As the operator's costs actually increased, they found that it was difficult to pass this cost on to the client, who was expecting a decrease in prices.

Other commercial operators have been less affected by significant increases in RUC rates because their business model relies less on road transport than others. A number of general freight and furniture removal companies we spoke to had opted to maximise rail transport and coastal services where possible in order to minimise road use. Any increase incurred by these operators also appeared to be easier to pass on to customers due to it being such a "negligible" fraction of the total cost. For example, a furniture removal company noted that for an intercity move a truck might only travel 70km to and from the railway station. Although RUC rates amount to approximately 10 cents per kilometre, the additional cost to the customer of \$7.00 is not significant in relation to an approximate total price of \$2000 for the move.

The impact of the increases on non-commercial operators may be greater because costs cannot be passed on to a customer or client. For example, several owners of large motorhomes believe the increases have made regular use of their vehicles unaffordable, and have become reluctant to travel as


much as they previously had. One case study informant was seeking to sell their motorhome and purchase another that was purpose built with a lower GVM. However, they stated that selling the vehicle had been difficult due to its high RUC liability and perceived that the increased RUC rates had devalued the vehicle.

The survey and case study findings suggest that costs for a significant minority of operators remained the same. This tended to be the case for commercial operators with a mixed vehicle fleet, or noncommercial owners of LDVs or purpose built motorhomes (as opposed to converted buses, which tend to have higher GVMs). Commercial operators with different types of vehicles and work were able to offset the cost of 'losses' because other areas of their vehicle fleet gained 'wins'. For example, a large passenger transport company offset cost increases to its fleet of Japanese-imported school buses, against cost decreases in its urban fleet. Another large general transport operator was able to compensate for cost increases in its furniture removal work with decreases in the costs of heavier payloads, such as fuels, bulk feed and concrete.

Operators that have experienced a decrease in RUC rates tend to be those operating vehicles that load to the VDAM maximum. Operators of such vehicles typically carry bulk solids and liquids, such as aggregates, logs and fuels or chemicals. The decrease is largely because under the previous system they were already purchasing RUC to the maximum load, so unlike light carriers, there has been no increase in the amount of weight purchased.

The amount of decrease in RUC rates gained by operators is generally small. The survey shows that no commercial operators reported a significant decrease in costs, and case study operators only recounted slight decreases. As outlined in section 2.1, the new charges were calculated to reflect the average licence weight previously nominated for the various vehicle types. The distribution of RUC licence weight purchases, particularly for heavy vehicles, meant that significant decreases were not expected under the new system. For example, four axle trucks and four axle trailers, which together account for the majority of 44 tonne combination vehicles, ran at average licence weights of about 22 tonnes each, and the new rates for these vehicles reflect those averages. Very few of these vehicles ran at individual licence weights of more than 24 tonnes which therefore limits the scope for large reductions in charges.

4.3.3 There is a perception that the new system is fairer and more credible than the previous one

Overall, the simplicity of the system has created a perception of greater credibility by allowing fewer opportunities for RUC evasion. A significant proportion of operators stated that they believe the new system is fairer than the previous one. This view is based on the perception that the changes to the system have helped to ensure that all operators are meeting their RUC obligations and "paying their fair share". Now that RUC for each vehicle type is at a set rate, the RUC component of pricing is much more transparent and operators feel that it is more difficult for "cowboys" and "cheats" to undercut the prices of other operators by under-purchasing RUC.

"It puts us all on a level playing field. The evasion was problem for us in the respect of other operators that we were competing against."

- commercial transport operator



"It's fairer to all concerned and...yeah I'd have to believe it's more credible...In a big picture right across the transport sector it puts us in a truer perspective with guys that are carting bigger weights."

- commercial transport operator

The credibility of the system has also been enhanced by the introduction of a new process for assessing unpaid RUC, which enables the RUC collector to conduct an inquiry and issue a binding assessment for the amount owed. The binding assessment process has the potential to greatly enhance the NZTA's ability to recover unpaid RUC and, once bedded in, is likely to result in greater compliance and therefore a more robust and credible RUC system. This is explored in more detail in section 4.6.

NZ Police personnel spoken to as part of this evaluation also reported a perception that the RUC system was more credible due to the updated offences and penalties regime. The new penalties, such as the flat fines infringements for distance overrun, were seen as more reflective of the magnitude of the offence and therefore fairer. More detail is provided in section 4.7.

4.3.4 A significant number of operators do not believe the new system is fairer

As might be expected, operators that have been negatively impacted by the changes are more inclined to believe that the changes have been unfair. Perceptions of fairness have largely been judged in relation to what existed previously, regardless of whether that was actually a fair system. There are six main arguments for why the system is perceived to be unfair. These are described in table 3.

Key issue	Operator example
Operators believe it is unfair that they are paying RUC for weight they are not carrying (and presumed road damage	"The loads carried don't even represent 50% of the weight that we are buying our road users forit's like buying a full can of coke [when] you only actually want half a can."
they are not creating).	 — commercial transport operator
	"We have literally got units that weigh 20 tonnes and they'll be running out of here at 30 tonnes, yet they are running a 44 tonne sticker. That's not fair."
	 — commercial transport operator
Operators believe that the changes to the new system are unfair because they have significantly devalued investment decisions they made under the previous system.	A small contractor transports light commodities from Auckland to Wellington. Under the previous system he purchased a car carrier trailer to backload cars to Auckland. With the increase of RUC rates on his car carrier trailer, he said it is less profitable to undertake the back loading work and he would not have made the same investment decision if he knew about the impact the changes would make.

Table 3: Key perspectives of unfairness



Key issue	Operator example
Operators believe that increases to their RUC rates are unfair because they were compliant under the previous system and now feel that they are being penalised for the non-compliance of others.	"I don't think it's totally fair, especially when we were carrying the right amount of RUC for the vehicles based on the freight [loaded], and as far as the revenue was concerned from a government point of view, no revenue was lost [from us]." — commercial transport operator
	"We knew we were going to end up paying some moreI thought it was extremely unfair given we were being legal before and now we are being penalised for it."
	— commercial transport operator
Operators believe that the changes to the system are unfair because they do not perceive them to be revenue neutral.	"I seem to remember reading a comment in the early correspondence stating that no one would be disadvantaged by the new measures, I have yet to hear of anyone who hasn't been! As far as I can see, after talking to other affected NZMCA members, this looks like thinly disguised revenue gathering." — non-commercial operator survey response "In our industry, and a number of people I spoke to, nobody knows where the winners wereI can't see anyone whose cost would've decreased. — commercial transport operator
Operators believe that the lack of clarity surrounding aspects of the system make it unfair.	"Until issue of Section 53 audits and liability for [operating] beyond 44 tonnes [is] quantified [the] question of fairness cannot be fully answered. Quantify the cost/processes/liability to see whether the system is fair or not." — commercial transport operator survey response
Motorhome operators believe that it is unfair that they are being charged using the same method as commercial operators, because unlike commercial operators, they cannot pass on costs to customers.	A motorhome owner believes that RUC must discriminate between commercial and non-commercial operators because it is unaffordable for non-commercial vehicle owners. They suggested special criteria be set to differentiate a motorhome from commercial vehicles.

As illustrated above, operators' perceptions of unfairness tended to relate to their specific circumstances, rather than the system as a whole. A number of (mainly commercial) operators acknowledged the advantages of the new system in terms of everybody "being in the same boat" and having to incur the same costs. Some had resigned to the fact that RUC taxes are a "necessary evil" for the road transport industry. There also appeared to be a growing acceptance of the changes, and a desire to make necessary adaptations to the new system and get back to business as usual. From that perspective, most operators wanted clarity, consistency and certainty surrounding the new system so that they could adequately work within it and have confidence in their investment decisions.



"Initially there was a huge outcry and there was a lot of angst and anger working through it. When I go back now, surprisingly, one of the key messages I get is...'we've made the adjustments, for god's sake don't change it again!"

-large commercial transport industry association

We expect that as operators adjust to the changes and evasion is reduced, the system will be perceived as more fair. To allow for this to happen, the system needs to be given more time to bed down and as a part of this, greater clarity and consistency needs to be applied to the aspects of the changes that operators find confusing (see section 4.1). When specifically asked whether, if given the choice, they would like to return to the previous system twelve out of the fifteen commercial transport operator case studies stated that they would not. This suggests an acknowledgement that overall, the new system is fairer.

It is important that the simplicity of the system is not compromised, as this is the basis of its credibility. Although some industries have been impacted more than others, within industries, commercial operators appear to be relatively evenly affected. We recommend that this is reviewed again in any subsequent evaluation activities before any changes to the RUC rates of different vehicles are made.

As non-commercial operators, motorhome owners appear to be particularly affected by the changes because they cannot pass on or share cost increases. Whether this disadvantage outweighs the benefits of a simple and consistent system is not clear, and the Ministry may wish to review the issue further.

4.4 Administrative complexity for government

This section addresses the expected outcome of reduced administrative complexity for government. It discusses the impacts of the changes on government administration costs related to the RUC system and the potential for further reductions in administrative complexity.

4.4.1 Overall, ongoing government RUC administration costs have slightly reduced

The changes to the RUC system have brought small reductions to the ongoing costs for government of RUC administration. The introduction of binding assessments has resulted in an efficiency gain for the NZTA, as it has removed the need for a protracted negotiation process with transport operators. However, the changes have not removed complexity from the identification of unpaid RUC, because administrators still need to go through the same manual process of matching records and undertaking calculations to estimate RUC owed.

Further time saving for the NZTA has been achieved through no longer having to go through the court process to recover unpaid RUC if an operator did not agree to pay. Previously this was a burden because it required the NZTA to spend a lot of time reviewing evidence to make a very strong case. The NZTA no longer has to go through this process due to the introduction of binding assessments (see section 4.6). The NZ Police have also achieved time savings because they no longer need to go through the court process for non-compliance with display of RUC licences requirements (see section 4.7).

Minor time savings have also been achieved through the removal of the time licence and supplementary licence systems. This saving is negligible because the NZTA was only processing a small number of



applications (for example, during the 2011/12 financial year an average of 946 time licence applications were processed per month) and the process was very quick and simple.

The policy work on changes to the RUC system occurred at the same time as an NZTA restructure. The restructure saw a large reduction in the number of RUC investigators and auditors; in 2009 the NZTA had a team of 11 investigators and 10 auditors situated throughout the country, which has now been reformed as a team of six 'RUC Special Assessors' based in Auckland and Christchurch. While the restructure of the NZTA has not been motivated by the changes to the RUC system, informants from the NZTA stated that the new structure of its RUC investigative arm was in response to the removal of operator nominated weights. While as at May 2013 all positions had not yet been filled, a smaller team will result in a cost saving for the NZTA.

While the single application process for electronic RUC providers is yet to be tested, it is less complex than the previously required dual approval, and as a result there may be administrative savings for the NZTA should another electronic RUC provider enter the market.

Since the 2009 amendment to the *Road User Charges Regulations 1978*, which provided for the use of electronic distance recorders and electronic display of RUC licences, there has been an ongoing upward trend in the uptake of electronic RUC systems (see section 4.10). The use of third party RUC providers is beneficial to the NZTA as it removes the need for the agency to directly administer RUC. While it is difficult to quantify the amount of time saved, uptake of electronic RUC has steadily increased and as at the end of March 2013 the number of vehicles issued with an electronic RUC licence stood at 12,113.

4.4.2 Electronic systems and technology provide potential for further efficiency gains

Better use of electronic systems and technology could help to further move administrative complexity for government by streamlining interactions between operators and government. For example, the off-road refund process could be made simpler for government if operators using electronic RUC systems could make applications electronically; currently, the information for making claims is electronic but the application form must be manually submitted to the NZTA. This would achieve efficiencies not only for government but also for operators (see section 4.10). The NZTA could achieve further efficiencies if technology could be used to assist the process of matching records to calculate the amount of RUC owed in situations where underpayment is identified.

4.5 Reduced RUC evasion

One of the more significant expected outcomes to the changes to the RUC system was a reduction in RUC evasion, particularly weight-based evasion. This section describes the attitudes and perceptions of operators with regard to evasion, the initial evidence of a decrease in evasion, and remaining and new areas for potential evasion.

4.5.1 Operators perceive that there are fewer opportunities for evasion

There is some debate at to the extent of RUC evasion under the previous system. The Cabinet Paper *Road User Charges: Improving Compliance* estimated heavy vehicle weight- and distance-based evasion of \$30 million per annum in 2008 and noted that this may have been an under-estimate. Informants



from some transport industry associations also stated that they perceived that evasion was more prevalent than the Ministry's estimates. On the other hand, some operators we spoke to believed that the government's assessment of the prevalence of evasion within the transport sector had been overestimated. They believed that it is not a widespread problem and a small minority of, generally, small operators account for the majority of evasion. Large and established companies, they argue, have too much at stake to consider evading the system. Small operators that are contracted to large companies which undertake in-house audits of compliance with legal requirements also have a greater disincentive to evade.

"The whole thing with evasion of RUC is that it was targeted at a small percentage. If you look at industry as a whole, 95-96% of people were compliant. Big businesses like ourselves and [others] couldn't afford to get a name for evasion. It was the small cowboys."

- commercial transport operator

There is a strong opinion among the majority of operators that the new RUC system provides fewer opportunities for evasion. This is based on the perception that the previous system allowed for weight-based evasion because operators could easily underestimate a vehicle's weight and under-purchase RUC (both intentionally and unintentionally). This was considered to be the most common source of evasion. Now that the system is based on set vehicle weights, operators believe there are fewer ways to evade.

The majority of operators felt that the changes to the system and the subsequent reduction in opportunities for evasion have had a "definite cultural impact". Whereas previously there was a perception that the system was easy to evade, it is now perceived to be much harder. Operators are now less likely to "cheat" the system and less likely to feel "cheated" by other operators. Many operators felt that those that evade the system are not cheating the government so much as they are cheating other operators. The Ministry has provided figures indicating that, prior to the changes, heavy vehicle operators who paid the correct RUC were effectively paying a 'subsidy' that was equivalent to 4-6% of heavy RUC revenue. The system is considered more credible by operators as the "playing field" has been "significantly levelled" because those that are compliant are not subsidising those that are non-compliant.

Among operators there was awareness, but not widespread knowledge, of the updated offences and penalties. Most operators said that they operated within the law and therefore do not feel affected by these changes. Many operators seem be more motivated by systems in which they are rewarded for compliance rather than punished for non-compliance. One operator felt that their vehicles were stopped by NZ Police less frequently because of their high grade under the operator rating system (ORS). Other operators said that ORS motivated them to comply with RUC. Although the Ministry has informed us that RUC compliance is not a factor in ORS, it is clearly perceived to be, and Ministry may wish to consider factoring it in in the future.

The new system does still include opportunities to overrun distance licence, although in many cases this may be due to accidental overrun rather than deliberate evasion. There was a perception amongst transport operators that distance overrun is not common within the heavy vehicle industry, other than the occasional inadvertent mistake. There was a fairly widespread view that exceeding the amount purchased on a distance licence was largely an issue related to LDVs. Industry association informants expressed concerns that there may still be a high level of non-compliance amongst LDVs but did not have any robust data on the issue and felt that research may be warranted. Informants believed that,



while there may be some intentional evasion, in most cases non-compliance is due to distance overrun amongst light vehicle owners who have recently switched from petrol and are unaware that RUC is a separate charge.

4.5.2 There is evidence that evasion has reduced

There is a strong perception among the NZTA staff, NZ Police staff and operators that evasion has decreased, largely due to the elimination of opportunities for weight-based evasion. Evasion is also perceived to be reducing due to ongoing uptake of electronic RUC (see section 4.10), and a simpler system that is easier to understand and harder to accidentally evade.

Based on the results of the NZ Police Heavy Vehicle Compliance Measurement Operation, an annual survey to measure compliance with commercial vehicle regulations, it is possible to estimate the total RUC paid and the amount that should have been paid. This provides an estimate of the percentage of RUC that is evaded.¹³ The estimated percentage of weight- and distance-based evasion in 2012 was 4.0%. In 2013 the percentage of evasion had dropped to 1.2% and is this likely to be mainly due to overrunning the distance on the RUC licence which is likely to be recoverable and therefore may be better described as late payment.

The compliance measurement operation results also show the number of weight-based RUC offences dropping from 147 in 2012 to zero in 2013, but this is because this offence no longer exists. There were, however, a number of offences related to VDAM vehicle mass breaches including 69 instances of exceeding the maximum gross limit. This implies that illegal weight is being carried and the operator should have obtained a permit to carry an on-road weight greater than the general mass limits of the VDAM Rule, and paid RUC on the permitted weight.

4.5.3 There are few remaining opportunities for evasion

Most operators felt that the remaining areas for RUC evasion are much less significant than the previous opportunity to under-nominate weight. Many operators felt that the changes had created "more controls" and had done a good job of "cleaning up the system" and "forcing the cowboys out of business". Others felt that "cheats will continue to cheat", but that there were fewer and less significant ways to evade. The key remaining areas of evasion are identified in table 4.

Area of evasion	Prevalence and perception of risks
Manipulating vehicle's GVM sticker	Although this issue was not raised extensively, it was mentioned that GVM sticker tampering could be a form of weight-based evasion under the new system. We have not heard any evidence of this actually happening.

Table 4: Remaining opportunities for evasion

¹³ Estimating the Scale of Road User Charges Evasion 2012



Area of evasion	Prevalence and perception of risks
Hubo/odometer tampering	Hubo/odometer tampering does not appear to be a widespread area of evasion in relation to heavy vehicles. It is a more deliberate form of evasion than overloading or decoupling combination vehicles, and operators perceive it to be more dishonest. Even from NZ Police, we did not hear of tampering being a significant issue for heavy vehicles, although it may be occurring to some extent amongst lighter vehicles.
	We did not gauge whether the new penalties associated with tampering and distance overrun are perceived to be a deterrent because the operators we spoke to said they complied and therefore the penalties were irrelevant. It was suggested that the new requirements for WoF and CoF testers to report odometer readings may have increased the risk to operators of tampering.
Not purchasing RUC	A small number of operators felt that there was a minority of "cowboys" that have been and will continue to avoid purchasing RUC. However, deliberate failure to purchase RUC does not appear to be a widespread problem. Unintentional failure to purchase RUC in the small vehicle classes appears to be a greater reason for failure to pay RUC.

While it is debatable whether it constitutes evasion, there appears to be an ability to limit the amount of RUC paid through vehicle dealers offering a selection of GVMs for the same vehicle model. We have seen evidence from both dealers and operators that dealers are offering vehicles with lower GVMs than those specified by the manufacturer. Stakeholders are uncertain whether this is a form of "gaming" the system and the NZTA is currently clarifying the legality of this practice.

We have heard anecdotal evidence that operators are still loading up to the 45.5 tonne enforcement tolerance without obtaining a permit and paying RUC on the permitted weight. While this may not technically be evasion, as RUC liability on such loads is not clear, it nonetheless undermines the credibility of the system.

4.6 Recovery of unpaid RUC

This section addresses evaluation questions related to the impact of the RUC changes on the NZTA's ability to pursue unpaid RUC, and identify and recover unpaid RUC.

4.6.1 The binding assessment process has enhanced the NZTA's ability to pursue unpaid RUC

The *Road User Charges Act 2012* includes a new assessment system for unpaid RUC, under which the NZTA is granted powers to conduct an inquiry and issue a binding assessment for the amount of RUC owed. This is similar to the approach taken by Inland Revenue to issuing tax assessments, and results in an enforceable debt to the Crown.

Under the previous RUC system, the NZTA was required to obtain agreement from the operator that a debt was owed. An invoice for the debt was issued, but this was not binding, and investigators would attempt to negotiate with the vehicle operator to gain their agreement that the debt was owed and



arrange payment. If the operator refused to admit liability for the debt, the only option to enforce payment was to go through the District Court.

This process represented an administrative burden for the NZTA. While agreement on the debt owed appears to have been reached in the majority of cases, this often required a substantial negotiation period with "a lot of back and forth over the telephone" (interview, NZTA staff member). Taking a case to court was a significant undertaking for the NZTA in terms of time and financial costs associated with collecting and reviewing evidence to ensure a strong case. This meant that court action was only pursued in certain cases, such as where a large amount was owed (anecdotal evidence suggests more than \$10,000), where it was clear that deliberate evasion had occurred, or where an operator repeatedly refused to accept liability for the debt. While we have not been able to obtain data on the total amount of identified debt that was not pursued, interviews with NZTA personnel suggest that revenue leakage was relatively high.

The binding assessment process has resulted in an efficiency gain for the NZTA. To date, the new process has been used to invoice for debt identified through LDV WoF inspections and through change of hubodometer applications. The process of identifying and assessing debt has not changed, and remains a manual process under which staff reconcile operator-supplied information with NZTA records and calculate the debt or refund owed. However, the binding assessment process means that negotiation with operators is no longer required, as the burden of proof now lies with the operator to show that a binding assessment is not correct. This has been a significant time saving for the NZTA.

"[Prior to the changes] we had to do a lot of chasing up – there was always back and forth. Most people are not active evaders but it took time to get agreement from both parties. Now we can make an assessment and send it off. It's certainly made things easier on our end"

NZTA staff member

Once an invoice is issued, operators can either accept liability for the debt, or respond in writing within 20 days. Approximately two thirds of the fifteen transport operators spoken to as part of this evaluation had received binding assessments, of which just under half had requested a review. These operators noted that the requirement for a written response had created additional administrative work, estimating that it took 3–4 hours to collate their records and compose a written response. On the whole, these operators had preferred the previous process under which they could discuss the situation with their local NZTA representative and perceived that this was no longer possible and any correspondence now had to be in written form. However, most operators did acknowledge that documented correspondence created a fairer and more transparent process, and that the previous system could be 'ad hoc'. The main issue identified by transport operators was that the 20 day time frame in which to respond was tight, particularly as they often did not receive the invoice for several days. Consideration could be given to extending this timeframe; 30 days was suggested as reasonable.

About half of case study operators who had received binding assessments had not applied for a review. Reasons given included that it was too time consuming to check and validate the assessment, the amounts involved were too small to bother appealing, or that on previous occasions when they had done so it was found that the invoice was correct.



"If it's only a small amount we just pay it. It's not worth the time and hassle of checking through our records. Sometimes we owe [the NZTA] money and sometimes we get a refund... it all comes out about even."

- small commercial transport operator

The binding assessment process includes a provision under which vehicle operators can appeal their case to an independent reviewer. A reviewer has been appointed, but to date the process has not been used. While a number of operators have requested an NZTA review of their binding assessment, it appears that so far agreement has been reached between the operator and the NZTA.

4.6.2 The binding assessment process has resulted in significantly more invoiced debt

The binding assessment offers the potential to recover all underpaid RUC, as opposed to only that for which operator agreement of liability could be obtained, and significant debt considered worthwhile pursuing through the Courts.

Analysis of NZTA RUC revenue shows that the amount invoiced has significantly increased. For the entire 2011/12 financial year a total of \$7.55 million was invoiced; from July 2012–April 2013 the total invoiced amount of \$15.51 million was already double that of the previous year. The average monthly amount invoiced from November 2012 to April 2013 was \$1.47 million, compared to an average of \$570,000 from the same period the previous year.

A monthly breakdown of the total amount of RUC invoiced for is presented in figure 6 below. This includes both LDVs invoiced for distance overrun, and underpayment identified through change of hubodometer applications.







As shown in the graph, there was a large spike in the value of invoices issued in October 2012, increasing from \$304,000 in September to \$5.6 million in October. This appears to be mainly attributable to the fact that the invoicing system was not fully functional until late September, resulting in a backlog of invoices being sent in October.

4.6.3 Reporting of WoF odometer readings has enhanced the NZTA's ability to detect RUC distance overrun amongst light diesel vehicles

The majority of the invoiced debt has been in relation to LDVs. The *Road User Charges Act 2012* includes a requirement for vehicle inspectors to report odometer readings as part of vehicle WoF inspections. The odometer reading is entered into the LANDATA system at the point of inspection, which automatically reconciles this with the amount of RUC currently allocated to the vehicle. A threshold of 12,000km has been set, and if the distance overrun is greater than this amount a binding assessment is issued. Interviews with NZTA personnel indicated that prior to August 2012 there was no reliable method of identifying this leakage, and the opportunity cost of pursuing the debt would in most cases have been greater than the amount recovered.

As noted above, once the initial backlog of invoices was cleared in October 2012, the average monthly amount invoiced increased substantially from November 2011 to April 2012 to the same period after the RUC changes. While this total also includes invoices related to hubodometer changes, interviews with the NZTA suggested that the bulk of the increase was for LDV distance overruns. It is too early to make any robust judgements, however it appears that the requirement for vehicle inspectors to report odometer readings has substantially enhanced the NZTA's ability to detect RUC distance overruns among LDVs. As the invoicing process is automatic, the substantial increase in the amount invoiced has been achieved at no additional administrative cost to the NZTA. This is a clear area of potential success in the new RUC system, although as discussed below has not greatly impacted recovered debt as yet.

4.6.5 A large portion of the debt invoiced through binding assessments is yet to be recovered

While the total RUC invoiced has significantly increased, interviews with NZTA personnel suggested that only 14% of the invoiced total has been recovered. Several possible reasons were suggested for the low debt recovery rate. There is anecdotal evidence that vehicle operators are confused about how to pay the debt, and believe that it can be cleared by purchasing RUC for the amount owed through the usual purchase channels. The NZTA has now amended the wording on their invoices to clarify this issue.

Another explanation is the fact that the majority of the invoiced debt is for distance overrun in LDVs. As outlined above, the threshold at which distance overrun is invoiced for is 12,000km, meaning that the average invoice generated is around \$900. The NZTA reported feedback from vehicle operators that this amount is difficult to pay at once, and consequently the NZTA is currently considering dropping the threshold to 5000km, which would result in invoices of \$200-300. This may increase the proportion of debt collected.

4.6.6 The record keeping requirements are yet to be tested as a means to investigate and recover revenue

The legislation includes a number of new record keeping requirements for operators, including records relating to logbooks, overweight permits issued, vehicle maintenance records, invoices for fuel and



maintenance, and invoices related to cartage. The record keeping requirements are intended to give the NZTA more effective measures to investigate and recover outstanding revenue¹⁴ and were not expected to create an administrative burden for transport operators as most of the record keeping requirements were already in place for other purposes (for example, the requirement to keep logbook records is already required under the *Land Transport Act 1998*). As noted in section 4.2.1 the requirements are generally perceived by operators to be reasonable.

The new record keeping requirements have yet to be employed by the NZTA as a means to detect evasion or underpayment. As noted previously, the changes to the RUC system coincided with an NZTA restructure. This saw a large reduction in the number of RUC investigators and auditors; in 2009 the NZTA had a team of 11 investigators and 10 auditors situated throughout the country, which has now been reformed as a team of six 'RUC Special Assessors' based in Auckland and Christchurch. As at May 2013 three of the positions had been filled. The focus on forming and recruiting the new team has meant that a negligible number of investigations have taken place since the changes were implemented and the new mechanisms to detect evasion (i.e. the record keeping requirements) have not been tested.

Several NZTA staff expressed scepticism that the new record requirements would assist with the detection of evasion, as it was believed that the prescribed requirements do not capture all relevant information to support audit investigations. For example, invoices relating to vehicle cartage often only show the total charge incurred rather than the actual volume of product carted, and therefore are unlikely to be useful in detecting unpaid RUC. This will be an important issue to monitor as the changes 'bed in' and the record keeping requirements begin to be used by the NZTA.

4.7 Enforcement of RUC

This section addresses evaluation questions related to the impact of the RUC changes on NZ Police enforcement procedures and the time NZ Police spend on RUC enforcement.

4.7.1 Enforcement of RUC is simpler due to the removal of weight-based evasion

RUC compliance for heavy and commercial vehicles is enforced by the Commercial Vehicle Investigation Unit (CVIU) during roadside checks. RUC enforcement for LDVs is undertaken by both CVIU and highway patrol staff. Interviews with NZ Police personnel suggested that the changes to the RUC system have simplified the enforcement of RUC, particularly for LDVs, and heavy vehicles under 44 tonnes. This is largely due to the removal of weight-based evasion as a RUC offence.

Under the previous RUC system checking the compliance of heavy vehicles was complex because it involved checks related to both weight and distance. Removing the weight dimension of RUC has simplified the work of enforcement officers conducting roadside checks. The RUC component of these checks now focuses on distance compliance through checking hubodometers and ensuring that adequate distance has been purchased. LDVs no longer need to be weighed, which NZ Police highlighted as a key efficiency under the new system. Heavy vehicles are still weighed but the focus is on checking whether the vehicle is breaching the VDAM limit, rather than checking RUC compliance.

¹⁴ *Road User Charges: Improving Compliance* Cabinet Paper



NZ Police have also achieved minor efficiency gains through not having to issue penalties for RUC weight-based evasion; from January 2008 to July 2012 an average of 62 notices were issued per month for exceeding nominated RUC weight for commercial operators and an average of 149 notices per month for non-commercial operators. Similarly, penalties for distance overruns are simpler to administer as they are now based on a graduating table of flat fees and do not require roadside calculation.

Since weight-based evasion of RUC has been removed as on offence, overloaded vehicles (such as those exceeding 44 tonnes without a permit) are now only penalised for breaches under the VDAM Rule. Since these operators previously received infringement notices for both RUC and VDAM offences, the new penalties are effectively half the amount. NZ Police have expressed concern that there is not a sufficient disincentive for operators to overload, and believe that penalties for breach of the VDAM Rule need to be increased to act as a sufficient deterrent to overloading. This was anticipated by the Ministry, which has launched a project to review the offences and penalties applied to overloading under the *Land Transport Act 1998* to ensure that these provide adequate incentives for compliance.

4.7.2 The emphasis of NZ Police roadside checks has shifted from RUC compliance to safety

A key part of the CVIU's role is performing roadside checks of heavy and commercial vehicle compliance. These checks are staged at four 'levels', the most common being a level 3 check, during which NZ Police inspect the operator's drivers licence, registration and WoF or CoF, check for RUC compliance, perform a breath test, and inspect aspects of the vehicle including headlights and taillights, brakes, tyres, seat-belt and chassis. The vehicle will not be weighed unless it is suspected that it is breaching VDAM limits.

Some NZ Police personnel reported a perception that roadside checks did not take as long as they had done previously. Level 3 checks were reported as taking approximately 30 minutes if a vehicle needed to be weighed, and an average of 20 minutes if it did not. NZ Police believed that the removal of the need to weigh all vehicles meant that CVIU was able to increase the number of inspections performed. Analysis of the number of level 3 checks performed is provided in figure 7 below. The graph shows that, while the number of checks undertaken by CVIU has increased since August 2012, this appears to be the continuation of an ongoing trend, and it is difficult to determine the extent to which the changes to the RUC system have impacted on this. Analysis of the number of roadside checks performed should be reconsidered once the changes have been operational for at least a year and have begun to 'bed in'.





Figure 7: Number of level 3 roadside checks performed January 2008 – February 2013

Interviews with NZ Police suggest that a key impact of the RUC changes has been a shift in emphasis at roadside checks from RUC enforcement to a focus on safety. Prior to the changes, NZ Police reported that approximately 30% of the time spent on each check was focused on issues related to RUC – primarily checking for weight compliance. The changes to the RUC system have meant that NZ Police are now able to focus a greater proportion of the time on safety.

"We recognise that there will always be a need for on road enforcement [of RUC], but that shouldn't take up the majority of our time. It's great because now we can focus on our core business – ensuring vehicle safety."

- NZ Police

This suggests that the savings achieved by NZ Police through a reduction in the time spent on RUC at roadside checks has been offset by an increase in costs related to safety compliance. The increased focus on safety in response to the changes to the RUC system may result in an unexpected additional benefit of improved safety in the heavy transport sector.

4.7.3 The number of infringement notices for light diesel vehicle distance overrun has substantially increased

The *Road User Charges Act 2012* included an updated list of offences and penalties, including new penalties for distance-based evasion. The changes appear to have had little impact on the number of infringement notices issued for distance overrun in commercial heavy vehicles. For the first seven months under the new system (August 2012 to February 2013) an average of 125 infringements were



issued per month. This is slightly lower than for the same period the previous year, in which a monthly average of 148 notices were issued. However, the data shows fluctuations over time and it is too early to draw any clear conclusions from the data. NZ Police did report that the table of graduating fees for distance overrun was seen by officers as fairer than the previous system, which was viewed as overly punitive.

In contrast, data on the number of infringement notices issued for distance overrun amongst LDVs shows that after the implementation of the changes in August 2012, NZ Police have issued substantially more infringement notices. As shown in figure 8, after a peak in May 2009, the number of infringement notices issued had been trending down. In July 2012 a total of 328 infringement notices were issued for offence H203 (drove outside mileage stated on licence). In August 2012, when the changes were implemented, the number of infringement notices issued for a similar offence under the new system (offence H128, exceeded maximum reading on distance licence – LDVs) more than doubled to 698. The number of offences has since trended down slightly, but remains higher than prior to the RUC changes.



Figure 8: Number of infringement notices issued for LDV distance overrun January 2008 – February 2013

Interviews with NZ Police personnel suggested two potential reasons for this increase: either that NZ Police were previously not issuing infringement notices in all identified cases of distance overrun; or that there is now more distance overrun among LDVs. A more detailed exploration of these potential explanations is provided in the table below.



Table 5: Potential reasons for increase in the number of	DV distance overrun infringement notices issued
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Explanation for increase	Details	Implication
Prior to the RUC changes, NZ Police did not issue an infringement notice in all identified cases of distance overrun.	 Interviews with NZ Police personnel suggested a number of reasons why this may have been the case: calculating the fine was seen by some NZ Police officers to be complex and the time required by officers to issue a penalty was perceived as too high to warrant strict enforcement there was a perception among some officers that the fine for LDV distance overrun (i.e. 3 times amount of RUC owed) was unnecessarily punitive, and NZ Police may have let vehicle operators off with a warning NZ Police reported that some vehicles which had overrun their distance licence also did not have a WoF or registration. There was a perception that operators of these vehicles could not afford the compliance costs, let alone the fines, and so NZ Police may have been lenient on the RUC aspect of fines NZ Police were aware that many LDV operators had challenged the fine in Court, which had generally resulted in a reduction in the amount they were required to pay. NZ Police reported concerns that this was undermining the system and it was perceived as 	Now that the infringement fee is set at a flat rate, which is easy to calculate and seen as reasonable, the NZ Police have been enforcing it more regularly.
NZ Police are uncovering more distance-based evasion and therefore are issuing more infringement notices.	NZ Police personnel stated a perception that the new infringement fee of \$200 was not enough of a deterrent to discourage distance overrun, and were concerned that the new system had removed a mechanism which had previously motivated LDV operators to ensure their RUC was up to date.	There is now more distance-based evasion among LDVs than there was under the previous system.

It is difficult to determine the extent to which each of these explanations are contributing to the increase in LDV distance-based infringements. However, interviews with industry bodies representing LDV owners suggest that their members were generally not aware of the new penalty, and any overruns were more likely to be due to oversight than deliberately delaying the purchase of RUC in response to lower penalties. This is supported by the survey results which show that of the 104 respondents



answering as LDV owners, 68.4% either did not know about the changes to the offences and penalties regime or thought it had had a neutral impact.

4.7.4 Removing the need to prosecute minor offences through the District Courts has resulted in efficiencies for NZ Police

The changes to the RUC system included new licence display requirements as well as new infringement offences relating to not having a properly working distance recorder. Both of these changes have achieved savings for the NZ Police as they no longer need to go through a District Court process.

NZ Police personnel spoken to stated that the new licence display requirements were working particularly well. Prior to the changes to the system, the only option available to NZ Police when vehicles were found to be operating without a RUC licence displayed was to take the operator through a court process. The changes mean that NZ Police are now able to access the LANDATA system and determine when the operator last purchased a licence, and can issue an infringement notice based on this information. NZ Police and operators both praised the provision which allows licences to be displayed on technology such as a smart phone or tablet computer for seven days after purchase, which was described as a "sensible move" that is conversant of the realities of an industry in which vehicles are often a considerable distance from the location at which a licence is purchased.

Similarly, the ability to issue an infringement penalty for an inaccurate, altered or obscured distance recorder was highlighted by NZ Police as a key advantage of the new RUC system. These offences also previously required prosecution through the District Court. Being able to issue an infringement notice offers a significant time saving for NZ Police, who no longer have to invest time in collecting and collating evidence.

In addition, NZ Police reported "taking a lot of criticism" for wasting District Court time with relatively minor offences and felt that the changes have had the benefit of increasing NZ Police credibility with the courts.

4.7.5 There is some confusion and inconsistency around enforcement of HPMVs and combination vehicles

It appears that there is some confusion among NZ Police and a lack of consistency regarding enforcement of RUC for vehicles operating at the higher end of the weight scale and for combination vehicles. NZ Police expressed concern that there are a number of vehicles that do not seem to be paying RUC because they do not fit within any of the current vehicle classifications, and suggested that officers were unsure of how to proceed when these vehicles were stopped for roadside checks.

NZ Police also stated that the profusion of overweight vehicle permit types was creating uncertainty.

"The H permitting stuff is so confusing. There are so many types of vehicles under the mass permits... there must be 40 or 50 types of RUC weights under the H permits, so it's confusing for operators who don't fully understand the system and it's confusing for us."

- NZ Police



Anecdotal evidence suggests that there is inconsistency in enforcement relating to the interchangability of combination vehicles. Industry associations and operators spoken to suggested that they were receiving conflicting signals from the NZ Police and the Ministry/NZTA, and also that the rules were not consistently applied by different NZ Police jurisdictions.

"There's a problem of how the three parties work out the application [of enforcement]. We get advice from the Ministry on the interchangability of [408 and 409] vehicles, [which] have the same licence rate. We get the Ministry saying 'we don't care as long as more money is paid than necessary', the NZTA sort of accepts that, and the Police say, 'nope, wrong licence on that vehicle - \$800 fine.'"

- transport industry association

It was reported that in some areas NZ Police are "turning a blind eye" to minor breaches of the rules around decoupling combination vehicles (e.g. 'piggybacking' log trucks or stock trucks leaving a trailer at the end of a rural road), while other areas experience strict enforcement. This inconsistency is confusing for operators. Recent amendments to the RUC regulations allowing unladen type H vehicles to carry another RUC vehicle that ordinarily forms part of the defined combination, and permitting prime movers in dedicated combinations to operate without a trailer when unladen, should help to address this issue.

4.8 Reduced late payment

This section considers the impact the RUC changes have had on late payment. It also explores the option of moving to post-payment of RUC.

4.8.1 It is too early to determine whether the new penalties are likely to reduce late payment

Late payment of RUC (i.e. vehicles overrunning the distance that has been purchased) represents an opportunity cost to the Crown, as the revenue cannot be used until it is paid. Interviews with Ministry officials suggested that this issue appears to be particularly prevalent amongst LDV owners. To address the issue of late payment, the NZTA is largely focusing on education, including the provision of information to non-commercial vehicle operators to increase their understanding of their RUC obligations. In addition legislative changes have been implemented, including the introduction of flat rate infringement penalties for distance overrun (see section 4.7.3), a new process for assessing and invoicing unpaid RUC (see section 4.6), and a penalty for late payment of invoices, equal to 10% of any RUC that remained unpaid three months after a binding assessment has been issued. The penalty is intended to incentivise vehicle operators to pay assessments promptly.

From November 2012 to April 2013 a total of \$986,000 was invoiced in assessment penalties. Over time, if the policy is successful in incentivising timely payment, we would expect to see a reduction in the value of invoices sent. As shown in figure 9, the amount invoiced has fluctuated from month to month. However, it is unlikely that any impacts will be seen immediately and this should continue to be monitored as the new system beds down.





Figure 9: Monthly invoiced RUC assessment penalties November 2012 – April 2013

4.8.2 Post-payment of RUC

The new legislation contains mechanisms to enable post-payment of RUC. There was a consensus among the majority of evaluation participants that moving to a post-payment system for RUC would be beneficial. Transport operators and government officials articulated a number of benefits of post-payment, including that it would remove distance overruns and would have a positive effect on business cash flow.

The main advantage stated was that post-payment would remove the need to apply for RUC refunds, which would create administrative savings for both operators and the NZTA. The refund process was described by transport operators as labour intensive, particularly as many operators have computerised systems but the refund process needs to be done manually.

"It's a doubling-up process. We have to transfer information from the computer on to the form and send that off. Then the NZTA enter it into their computer. Post-payment would save us all a lot of admin time."

- large commercial transport operator

Now that changes to the RUC system are starting to 'bed' in we recommend further exploration of postpayment. We understand the Ministry has already begun this process. One of the issues that would need to be considered is the risk of lost revenue through non-payment, particularly relating to clarification of liability for eRUC providers (i.e. there needs to be clarity about where the debt sits if the transport operator fails to pay).



4.9 Efficiency in vehicle use

The following section describes the effects of the changes to the RUC system on efficiency in vehicle use. In particular, it addresses the impact on vehicle loading and vehicle use patterns, as well as any barriers to efficient vehicle use and the overall effect of the changes on vehicle purchasing decisions.

4.9.1 There has not been a significant impact incentivising operators to load to maximum vehicle weights, but there is some evidence of better load distribution

The move to a fixed RUC weight band system includes a theoretical incentive for operators to maximise their vehicle use by loading vehicles up to their RUC weight. There is not much evidence of this impact at the individual operator level; most commercial transport operators reported that they were already loading as efficiently as possible as a matter of standard business practice and that other factors were more important than RUC considerations when determining how a vehicle would be loaded. For example, one operator noted that they needed to be able to respond quickly to customer delivery requirements and were unlikely to "wait around for an additional load". Others were not able to load up to their vehicle's RUC weight as they carried high volume loads so that maximum capacity was reached before the maximum weight, while some were contractually obliged to carry specific weight loads.

"RUC is down the queue in terms of priorities for vehicle loading decisions; there has been no change to our business model."

general freight company

"The majority of our loads are high cube with low weight, so we need to run 8 wheelers the majority of the time but cannot run at a lower weight band."

survey respondent

Commercial vehicle operators also stated that they were already back loading (i.e. making use of spare capacity on the return leg of a delivery journey) wherever possible, and had not been able to make any changes in response to the RUC changes.

It is noted that there may be efficiency gains at the transport industry level which are not apparent at the operator level. This could be explored during further evaluative activity once the new system has bedded in.

While there has not been much impact at the individual operator level on loading vehicles to their maximum weight there does appear to be a change in loading patterns related to combination vehicles. Under the previous RUC system each vehicle that comprised a "combination" (such as a B-train) was treated separately, and each vehicle had to carry its nominated weight. This incentivised operators to load a combination in a way that minimised RUC obligations, which generally meant maximising trailer weights. Under the new system the actual weight of the individual component vehicles no longer affects the RUC payable for a combination. This means that there is flexibility in the way the load can be distributed. Operators praised this as a key advantage of the new system, stating that they were able to make loading decisions based on factors such as convenience (i.e. how the vehicle will be unloaded), access, or to distribute the weight in a safer way.



4.9.2 Most commercial vehicle operators have not changed their vehicle use patterns; some operators who previously loaded to the VDAM tolerance have amended their vehicle use

The evaluation also considered the extent to which operators have changed their vehicle use patterns, such as the frequency of trips and matching the type of vehicle to the job to maximise efficiency. As above, the evaluation findings suggest that operators were already planning vehicle use and matching vehicles to task as a regular part of their business model. Making changes to mitigate RUC liability was either not possible, or other considerations (such as timeliness of delivery) were more important.

Some operators that use vehicles at the heavy end of the weight spectrum, reported a perception that their vehicle use patterns have become less efficient as a result of the RUC system changes. As noted previously in this report, the 1.5 tonne enforcement tolerance for VDAM breaches had become the default weight limit, meaning that vehicles were regularly operating at 45.5 tonnes. These operators stated that the inability to mitigate RUC liability on the additional weight has meant that they have now reduced their loads to the legal limit of 44 tonnes and are making more trips to compensate.

"Because of the unknown RUC liability and the inability to mitigate any unintentional overload - beyond the VDAM max of 44 tonne - the trucks are now under loading [and] productivity has been reduced [with] more trips being undertaken to shift the same volume."

survey respondent

"We used to load to the VDAM tolerance and purchase RUC to cover this. Now we are not able to do so and have had to reduce load size, which reduces efficiency. Our stock trucks used to be able to transport 30 units, but can now only transport 27 units. We effectively need to make 10% more trips."

large transport company

However, data on vehicle kilometres travelled by heavy vehicles does not show an identifiable increase in the number of trips, suggesting that there has not been a widespread reduction in loads and corresponding increase in kilometres travelled.

4.9.3 There is some evidence that the inability to uncouple combination vehicles is a barrier to maximising vehicle productivity

Operators have suggested that the lack of flexibility to uncouple prime movers in dedicated combination vehicles is a barrier to efficient vehicle use in terms of being able to maximise vehicle productivity.

As one operator noted, productivity is enhanced by the ability to utilise their vehicle for different purposes – for example a range of urban transport activities during the day and line haul at night. However, in order to retain these business practices, operators would be required to purchase RUC on the separate vehicle units rather than as a combination. For 44 tonne eight axle combinations the saving is approximately 6%. The price difference was seen by some operators as a disincentive to operating with different configurations and operators reported foregoing work that would require decoupling.



Box 1: Case study example of changed vehicle use patterns

An owner/driver described how the cost incentive to operate his vehicle in combination has led to a loss in ability to use his vehicle flexibly and efficiently.

The driver owns a five axle B-train, and operates on a 'swap system' whereby the trailers are changed with other partners at certain points in a journey. The operator undertakes line haul work overnight and metro work during the day.

Prior to the RUC changes, the operator used the tractor unit to tow a single axle semitrailer during the day, but to do this legally now would require a change to a Class 6 vehicle type. The operator stated that this would cost approximately \$6,000 per annum more in RUC. This was seen as not being worth the expense, as the additional daytime work was worth only \$4,000 per year.

It is acknowledged that the additional daytime work in the above case study would account for a small proportion of the vehicles overall annual distance travelled, and therefore it would not be worth paying the additional 6% on the bulk of the distance travelled. However, the example does illustrate the perception of some in the transport industry that the combination vehicle rules are a disincentive to efficient vehicle use.

At least two of the operators we spoke to stated that the rules related to combination vehicles were a barrier to moving to HPMVs, for reasons such as those described in box 1 above. There is, however, a valid argument that the productivity gains achieved through flexibility in vehicle use should mean that standard RUC rates are paid on these vehicles.

Overall these issues may outweigh the benefits of the concession for combination vehicles, and the Ministry may wish to consider removing the discount. The removal of the discount would be offset by averaging the difference between combination rates and non-combination rates for truck and trailers of the same configuration. This would need to be carefully managed, with a long notice period.

4.9.4 Transport operators consider RUC when making vehicle purchasing decisions

There is evidence that operators are considering RUC when making decisions on vehicle purchases. The survey results, as shown in figure 10, indicate that for most respondents, RUC was considered in vehicle purchasing decisions but was not the main consideration. Commercial transport operators were more likely to consider RUC; 92% of commercial transport operators stated that they considered RUC to some degree in vehicle purchasing decisions compared to 81% of private individuals.





Figure 10: Extent to which survey respondents considered RUC in vehicle purchasing decisions

The survey results were reflected in the operator case studies, with most commercial operators stating that although RUC is a contributing factor in fleet purchase decisions, it is not a primary consideration. Other factors such as safety and efficiency were considered of greater importance.

"Safety, practicality and productivity are at the top of the list. RUC's somewhere down the list after that. RUC makes up just over 10% of our per kilometre running costs, so it's not the biggest factor when deciding what vehicle to buy."

- commercial business with large fleet

Several case study operators noted that a stable and predictable RUC system was essential to allow for confidence in their vehicle purchasing decisions. While RUC is not the biggest driver of the investment decision, it is nonetheless a significant consideration. Some operators felt 'caught out' by changes to the system, which meant that certain vehicles which had previously been 'RUC efficient' were no longer so, and there was some concern expressed that further changes could have the same effect.

4.9.5 There is likely to be a move towards lighter vehicles, but changes to the vehicle fleet will be slow

While RUC was not generally the strongest contributing factor to purchasing decisions, a small number of case study operators were able to provide examples where RUC considerations had directly led them to purchase a certain type of vehicle. These operators had generally purchased smaller vehicles with a lighter GVM in order to mitigate RUC liability.

"Since the changes we have purchased four 'round the town' delivery vehicles. Before we would have bought larger ones which would have been in the second weight band, but now we made sure we got ones in the lowest band."

small transport operator



Some vehicle dealers appear to be capitalising on the desire for vehicles with a lower GVM by offering the same model vehicle with a range of GVM options. For example, the evaluation team sighted a dealer advertisement offering a utility vehicle with a GVM of either 5.999 or 8.5 tonnes. The extent to which this is attributable to the changes to the RUC system is unclear, as there was already an incentive to offer vehicles limited to 6 tonnes in order to allow operation of the vehicle on a class one licence, but there was a perception amongst transport sector stakeholders interviewed for this evaluation that the practice had increased in response to the RUC changes.

There was a reasonably widespread expectation amongst the transport operators we spoke to that the national vehicle fleet would shift from four-axle to three-axle trucks as the RUC payable for three-axle trucks at maximum weights is lower under the new system than under the previous one. Some concern was expressed as it was perceived that these vehicles would carry the same loads as previously, but fewer axles would result in less stable loads with reduced safety and greater pavement wear and tear.

However, while there was a widespread *perception* that vehicle fleets might change, we were able to find very few examples of operators actually making these purchases. The evaluation has been undertaken shortly after the changes were implemented, meaning many operators have not needed to upgrade or change their fleets. In addition, as noted above, other considerations generally took precedence over RUC.

Any change to the vehicle fleet is likely to be very slow and it is therefore too early to observe whether the RUC reforms have led to a change in the composition of the vehicle fleet. Ministry of Transport vehicle fleet statistics show that the rate of fleet change among heavy vehicles is approximately 2000 per year. According to industry association informants about 10% of these are heavy duty trucks. Therefore even if a substantial majority of vehicle operators move from four-axle to three-axle trucks the rate of change will be very slow, at less than 200 per year.

The sectors of the transport industry that appear most likely to see a change in vehicle types are passenger transport and motorhomes. There is likely to be a move away from importing older heavier vehicles with high GVMs, which are now less RUC efficient. This trend was likely to occur due to emissions standards, but may be reinforced by the RUC changes. In particular, a large number of motorhome owners, including both case study participants and survey respondents, stated that they were likely to purchase a different type of vehicle to fit a lower weight band. Owners of large converted buses felt particularly disadvantaged by the new RUC system, with one owner having had his motorhome (a purpose-built vehicle on a truck chassis) reconfigured to enable it to fit into the 18 tonne weight band.

4.10 Electronic RUC systems

This section addresses questions relating to uptake of electronic RUC by transport operators and perceptions related to advantages of electronic RUC as well as barriers to uptake.

4.10.1 The application process to become an electronic RUC provider appears to be improved

Electronic RUC was provided for under amendments to the RUC regulations which came into effect on 1 January 2010. These allowed for the use of electronic distance recorders (EDRs) and electronic display of licences as an alternative to paper licences and mechanical hubodometers. The updated regulations



also enabled third party electronic system providers (i.e. private companies) to apply for authority to issue electronic RUC licences.

However, companies wanting to become an electronic RUC provider needed to obtain two levels of authorisation: authority to issue RUC licences, as well as approval for the electronic distance recorder. This was because under the *Road User Charges Act 1977* the collection of RUC (and the issuing of licences) was the responsibility of the Secretary of Transport, but had been delegated to the NZTA, while the approval of hubodometers and electronic distance recorders remained the responsibility of the Secretary. The new legislation under the *Road User Charges Act 2012* provides for a single application process, under which the RUC Collector (i.e. the NZTA) is responsible for both the authority to issue RUC licences and electronic distance recorder.

There are currently two providers of electronic RUC services, both of whom went through the dual application process prior to the implementation of the new legislation. Interviews with the two providers suggested that the previous process was time consuming and required a large financial investment. Informants stated that the main cost was related to the numerous testing cycles required for electronic distance recorders. One informant felt that the Ministry, the NZTA and themselves were all learning during their EDR approval. While the single application process has not been trialled this informant believed that, should another electronic provide enter the market, the process was likely to be smoother as a result of NZTA having now approved two providers and was likely to have "removed the bugs from the system."

Interim guidelines for electronic RUC management systems were developed in November 2010. These provide information on the approval processes under the previous RUC Act (i.e. to become an agent of the NZTA and for approval of the electronic distance recorder) as well as technical performance requirements for an electronic RUC system. The Ministry has stated that it recently has begun a process to review the guidelines.

4.10.2 Uptake of electronic RUC systems has followed a continuous upward trend

Since amendments were made to the RUC regulations to enable the use of electronic distance recorders the uptake of electronic RUC has steadily increased.

Figure 11 shows that by the end of the first quarter of 2013 just over 12,000 vehicles had been issued a RUC licence by electronic system providers.





Figure 11: Quarterly data on the number of vehicles issued an electronic RUC licence Q1 2010 – Q1 2013

The graph shows an increase in uptake of vehicles issued an electronic RUC licence in quarter four of 2011, which is the same time that the second provider entered the market. The majority of these additional electronic licences were issued to vehicles by the existing provider, rather than the new one. It is difficult to determine whether the increased uptake in electronic RUC can be attributed to competition between providers (for example, the increase in uptake may be due to greater investment in marketing of electronic RUC systems) or whether it is a coincidence, but the data trajectory does show a steeper increase once the second provider gained approval to issue RUC.

Just over 30% of commercial respondents to the evaluation survey currently use electronic RUC. Anecdotal evidence suggests that operators who uptake electronic RUC tend to be predominantly medium and large sized operators (i.e. those with more than 50 vehicles in their fleet); on the whole smaller operators have not taken up electronic RUC in large numbers.

4.10.3 The main benefits for operators of moving to electronic RUC are savings in administration time and removal of the need for manual hubodometers.

Interviews with transport operators suggested that the main benefit of electronic RUC was savings through less time spent on RUC administration. Efficiencies were mainly related to not having to calculate and process refund applications, as well as not having to spend time purchasing RUC.

"We were a bit sceptical at first because of the [high] cost, but it's been worth it... the savings on time processing RUC have been good, takes a lot of the fuss away."

- Large freight operator



Replacing hubodometers was also seen as a key benefit, as the accurate distance recording both enhanced operator business management and resulted in fewer NZTA invoices for unpaid RUC.

Transport operators articulated a number of other benefits of electronic RUC. The ability to automatically update RUC was seen as particularly beneficial by operators who worked across large geographic areas, as it removed the need to courier a paper-based licence to drivers. Convenience was also seen as an incentive of electronic RUC. As one operator pointed out, the transport industry is a 24 hour, seven-day-a-week industry, yet RUC agents are only open during business hours on week days. This can lead to overruns due to the inability to purchase RUC.

The evaluation survey results show similar findings. Respondents were asked to nominate the extent to which they agreed various factors were a benefit of electronic RUC systems. As shown in the figure 12 below, the removal of the need for a hubodometer was seen as the strongest benefit (54% of respondents agreed or strongly agreed), with ease of applying for refunds also seen as important (35% of respondents agreed or strongly agreed).



Figure 12: Commercial transport operator survey respondents' perceptions of the benefits of electronic RUC systems¹⁵

4.10.3 The main barrier to greater uptake of electronic RUC systems is cost.

The main barrier to greater uptake of electronic RUC systems is cost. Many transport operators, particularly those with small fleets and owner/drivers, viewed the cost of electronic RUC systems as prohibitive.

¹⁵ This question was not asked of private individuals as electronic RUC is currently targeted at commercial transport operators.



"I can see the benefits, [but] it's just not on the radar at the moment until the cost comes down. Per unit it doesn't seem too bad, but if we [were to] kit out all our trucks and all our trailers... you're talking a couple of thousand a month."

- large freight operator

The majority of these operators did, however, see the benefits in electronic RUC, and stated that they would be likely to eventually move to an electronic system, particularly if the price reduced.

Another barrier to uptake was that a number of operators had long term existing contracts with GPS providers, which they were unable to break. Many of these operators indicated that they intended to shift to electronic RUC once their existing GPS contract expires, so this constraint is likely to be temporary. One case study operator stated that technical issues related to power supply to trailers was a barrier to uptake for his firm.

4.10.4 Uptake of electronic RUC could be further enhance by a reduction in cost, movement of NZTA processes to electronic format and the ability to post-pay RUC.

Greater movement to electronic RUC has a number of potential advantages for government and operators. Electronic systems support more accurate distance recording and reduce the level of late payment of RUC, thereby enhancing the robustness of the system. Electronic systems and technology also provide a platform for efficiency gains, such as reducing the need to issue assessments for unpaid RUC and streamlining the off-road refund process. Further efficiencies could be achieved by the NZTA moving much of the RUC administrative burden to third party providers.

It is likely that uptake of electronic RUC will continue to increase over the medium term. As suggested above, a key incentive to uptake would be reduced costs of the systems. Interviews with Ministry personnel suggested that competition between electronic system providers was seen as a mechanism for achieving a reduction the cost of EDRs. As outlined in section 4.10.2, uptake of electronic RUC does show an increase in uptake after the market entry of a second electronic system provider. While this may be a coincidence, future evaluation activities should focus on whether the costs of electronic RUC systems has reduced, and if so, investigate the reasons for the reduction in cost and whether this has had any impact on uptake of electronic RUC.

Electronic RUC could also be enhanced by moving some NZTA processes, which are currently manual, to an electronic format. For example, as outlined above, the automatic calculation of off-road refunds is a key driver for uptake of electronic RUC, however processing of refunds still needs to be done manually. Changing to an electronic refund system would save significant time for the NZTA and electronic RUC providers, as well as operators who do not currently use an electronic RUC system and therefore manage their own application process. An electronic refund system would also increase the speed at which refunds were received.

A number of operators stated that if post-payment of RUC was available this would be an incentive to move to an electronic RUC system due to the positive effect on business cash flow and, in particular, removal of the need to apply for RUC off-road refunds.

In the longer term, electronic RUC systems could be used as a platform for features such as changing vehicle licence types between combination and individual vehicle licences.



5 CONCLUSIONS AND RECOMMENDATIONS

This section sets out our conclusions and recommendations in three key areas:

- 1. A summary of key findings and conclusions relating to the overarching objectives of the new RUC system
- 2. Conclusions related to the overall strengths and weaknesses of the new RUC system
- 3. Recommendations to enhance the ongoing delivery of the new RUC system.

5.1 Conclusions relating to the overarching objectives of the new RUC system

The Ministry has identified four overarching objectives for the new RUC system: equity, efficiency, cost recovery and integrity. Conclusions related to the extent that these objectives have been achieved and a summary of the key evidence on which these conclusions are based, are outlined below.

5.1.1 Equity

Overall, the changes to the RUC system have been relatively successful in creating greater equity. This is based on the fact that the system is more difficult to evade, meaning that compliant operators are no longer effectively subsidising those that were non-compliant. Further details are provided in table 6.

Measure of equity	Evidence	Implications
The system is more difficult to evade.	 The removal of the operator nominated weight dimension has significantly reduced opportunities for evasion (see section 4.5.1). There is a strong perception from NZ Police, government and operators that weight-based evasion has significantly reduced (see section 4.5.2). 	• Many operators perceive that the new RUC system is more equitable because, now that there are fewer opportunities for evasion, it is perceived that compliant operators are no longer subsiding non-compliant ones.
The system is easier to understand.	• The new system is simpler to understand and comply with, because the operator nominated weight dimension and the time and supplementary licence systems have been removed (see section 4.1.3).	• The simplification of the system is perceived to be helping to reduce the amount of inadvertent failure to pay RUC that previously occurred and make compliance more widespread. For example, operators no longer have to rely on estimates of the weight of their vehicles.

Table 6: Conclusions related to equity in the new RUC system



 Operator perceptions of fairness and equity. There is a perception that the new system is fairer than the previous one (see section 4.3.3). 	• The changes are seen as having 'levelled the playing field' by helping to ensure that all operators are meeting their RUC obligations.
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5.1.2 Efficiency

The key areas where increased efficiency was expected for transport operators were in relation to compliance costs and efficiency in vehicle use. For government, efficiencies were expected through a reduction in administrative complexity and improved enforcement of RUC. It is too early to determine with any certainty whether the efficiency gains that were expected of the new RUC system have been realised, however early indications are that increased efficiency is not apparent at an individual operator level, but there may be small efficiency gains at a transport sector level. The NZTA has achieved some efficiency gains, and NZ Police spend less time enforcing RUC.

	Table 7: Conclusions	related to	efficiency in	the new RUC	system
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Measure of efficiency	Evidence	Implications
Compliance costs for operators.	 Most operators reported that they have not made any changes to their processes, as a result of the new RUC system, that create efficiencies (see section 4.2.1). 	 The changes to the system have generally not created any time-savings for operators at an individual level. At a system level minor efficiencies have been achieved.
	 Operators that have seen a decrease in their compliance costs were the minority that frequently adjusted their RUC weight nominations (see section 4.2.2). 	• The greatest potential for increasing efficiency of RUC compliance for operators is through use of electronic RUC systems.
	• Small savings have been achieved at the transport industry level due to the removal of supplementary licences and adjustments to the administration fee structure (see section 4.2.3).	
	• The use of electronic RUC systems resulted in a reduction in operator time spend on RUC administration (see section 4.2.4).	
	• Operators have identified compliance costs such as switching between vehicle types as areas where efficiencies could be gained through use of electronic technology (see section 4.2.4 and 4.10.4).	



Measure of efficiency	Evidence	Implications
Efficiency in vehicle use.	 Most operators have reported that they have not changed their vehicle loading and use patterns as a result of the changes to the RUC system. For example, most operators were already loading their vehicles to the maximum possible weight as a matter of good business practice (see section 4.9.1 and 4.9.2). Some operators felt that the changes to the system had forced them to use their vehicles less efficiently. For example, because some operators have opted for a combination licence, they cannot decouple their vehicles to do different types of work (see section 4.9.3). RUC continues to be one of the drivers of vehicle purchasing decisions and the new system is likely to cause a slow shift towards use of lighter vehicles (see section 4.9.5). 	 RUC is an important driver of vehicle use decisions. However, the assumption that the changes to the system would incentivise operators to use their vehicles more efficiently did not take account that most operators were already using their vehicles as efficiently as possible. Some efficiencies may have been lost due to the introduction of discounted combination licences. There may be efficiency gains at the transport industry level which are not apparent at the operator level. The slow shift towards greater purchasing and use of lighter vehicles may result in fewer imports of older, heavier vehicles, a trend which was already beginning as a result of emissions standards.
Administrative complexity for government.	 Due to the introduction of binding assessments, the NZTA no longer needs to go through the court process for cases of RUC evasion and no longer needs to negotiate with transport operators. The process of identifying unpaid RUC, however, has not changed (see section 4.4.2 and 4.6.1). The removal of the time licence and supplementary licence systems are a very small time saving (section 4.4.2). The NZTA's RUC investigation and audit team has been reduced from 21 staff to six (see section 4.4.2) Most other administrative processes have not changed and still require manual processing (e.g. off-road refund applications, see section 4.4.3). 	 The changes to the system have created moderate time-savings for government. There is potential for reducing the complexity of RUC administration and operating costs for government through moving to electronic systems. For example, the off-road refund process could be made simpler if operators could make electronic applications.



Measure of efficiency	Evidence	Implications
Enforcement of RUC.	• Enforcement of RUC is simpler due to the removal of weight-based evasion (see section 4.7.1).	 NZ Police time spent enforcing RUC has reduced while actual enforcement has improved.
	 Removing the need to prosecute minor offences through the District Court has resulted in efficiencies for NZ Police (see section 4.7.4). 	 The emphasis of NZ Police roadside checks has shifted from RUC compliance to safety. The reduction in the time spent on RUC at roadside checks appears to have been offset by
	 The updated offences and penalties, such as for distance overrun and not having a properly 	 more time being spent on safety compliance. The increased focus on safety result in
working distance recorder, are seen as easier to administer (see sections 4.7.3 and 4.7.4)	an unexpected additional benefit of improved safety in the heavy transport sector.	

In order to capture further efficiency gains, the Ministry and the NZTA should further investigate the potential of electronic systems and technology to reduce administrative burden on both government and industry. A key area identified for improvement is the off-road refund process. Incentivising further uptake of electronic RUC through enabling post payment would achieve efficiency gains for NZTA by moving much of the administrative burden to third party providers.

5.1.3 Cost recovery

The changes to the RUC system were not intended to make a significant difference to the amount of revenue generated; rather, they were intended to recover the same revenue as under the previous system while reducing cross-subsidies from compliant operators to the non-compliant. It is too early to draw any strong conclusions around revenue neutrality, but the Ministry's analysis of RUC revenue per kilometre by vehicle type suggests that on a per kilometre basis the changes are broadly revenue neutral (see section 4.3.1).

In terms of the NZTA's ability to identify and recover unpaid RUC, the binding assessment process has created the potential to greatly enhance debt recovery, but to date the proportion actually recovered is low and has only addressed LDV overruns and faulty hubodometers (see section 4.6).

5.1.4 Integrity

Based on both industry and government perceptions, the new RUC system has more integrity than the previous one. Confidence in the system is largely based on a perception of a reduction in gaps in the system and more controls, which have come as a result of reduced RUC evasion, improved abilities to recover and enforce RUC, and increasing uptake of electronic RUC. For operators, the integrity of the system is also strongly related to perceptions of fairness and equity.



Measure of integrity	Evidence	Implications
Reduced RUC evasion.	• The new system is widely regarded to have fewer opportunities for evasion (see section 4.5.1).	• A reduction in evasion indicates that the new RUC system is more robust and less subject to "gaming".
	• There is some evidence that evasion has reduced as a result of the changes to the RUC system (see section 4.5.2).	
Improved recovery of unpaid RUC	• The binding assessment process has enhanced the NZTA's ability to pursue unpaid RUC and has resulted in significantly more invoiced debt (see sections 4.6.2 and 4.6.3).	 The improved ability to recover RUC is likely to drive greater compliance and contribute towards a more robust system.
Improved enforcement of RUC.	• Enforcement of RUC is simpler due to the removal of weight- based evasion and of the need to prosecute minor offences through the District Court (see section 4.7.4).	 Simpler enforcement is expected to ensure consistent application of the rules of the system, which in turn will add to its credibility.
Increasing uptake of electronic RUC.	• The uptake of electronic RUC systems has seen an ongoing upward trend (see section 4.10.2).	• The increasing uptake of electronic RUC is very likely to result in greater compliance and fewer opportunities for gaps and loopholes to emerge.
Operator perceptions of integrity	• There is a perception that the new system is more credible than the previous one (see section 4.3.3).	 Creating a set 'RUC weight' for each vehicle type means the system is seen as more transparent.
		 Operators feel it is more difficult to undercut prices of other operators by under-purchasing RUC. This is likely to result in increased compliance as fewer operators feel compelled to 'cheat' the system because they believe that others are doing so.

To maintain the overall integrity of the new RUC system, the Ministry needs to address the remaining areas of actual and potential evasion identified in section 4.5.3. The key area requiring focus is loading over the VDAM limit.



5.2 Overall strengths and weaknesses of the new RUC system

Based on the evaluation findings outlined in sections 4.1 to 4.10, we have identified a number of key strengths and weaknesses related to the new RUC system. The features of the new RUC system and its implementation that have been identified as strengths are:

- **Overall simplicity:** the system as a whole has been considerably simplified and as a result has contributed to fewer opportunities for evasion and a more equitable system, a simplified means through which to recover unpaid RUC, as well as improved enforcement and a greater ability for NZ Police to focus on safety considerations.
- **Operator satisfaction:** the majority of operators did not favour a return to the previous system, which indicates that the direction of the changes is positive.
- Integrity of the system: the new RUC system has greatly reduced the prevalence of evasion, as well as improved the recovery of unpaid RUC. It is seen by operators as fairer and more credible than the previous RUC system.
- **Communication of the changes:** the communication strategy was successful in engaging with stakeholders and ensuring reasonably widespread understanding of the new RUC system.
- **Revenue neutrality across the national fleet:** RUC revenue per kilometre under the new system is marginally lower than was expected by the Ministry, suggesting that the changes are broadly revenue neutral.
- **The binding assessment process:** the introduction of binding assessments has resulted in an efficiency gain for the NZTA as well as a significant increase in *invoicing* for unpaid RUC. The process will need to be re-evaluated once the NZTA's operational adaptations have been put into practice, to determine how successful it is in actually *collecting* invoiced RUC.

The main areas of weakness of the new system are:

- More efficient use of vehicles does not appear to be being achieved: there is no evidence at this stage that the new RUC system is leading to more efficient vehicle utilisation, and there has been some evidence of inefficiencies resulting from the system. This may be apparent as a longer term outcome of the new system.
- Some road user groups have been disadvantaged by the changes: the changes have particularly impacted operators who carry 'light and bulky' loads, such as furniture, groceries and courier items, and owners of motorhomes with high GVMs such as converted buses. Unlike commercial transport operators, motorhome owners cannot pass on the additional costs and some have become reluctant to travel as much as they previously had.
- At an individual operator level, RUC administrative processes remain time consuming: the administrative savings that many operators expected to achieve through the new system have not yet materialised. The NZTA has not yet made significant changes to its administrative processes, some of which remain particularly time consuming (e.g. manual application of off-road refunds).



5.3 Recommendations

Based on the findings of the evaluation of the new RUC system, we have identified a number of recommendations relating to the ongoing delivery of the new RUC system.

Recommendation one: the system be allowed to continue to bed down and no major changes should be made. The evaluation found that, while some transport operators initially resisted the changes to the new RUC system, most have now successfully adapted to it. A clear, stable and consistent RUC system is essential to allow for operators to confidently work within it. We therefore recommend that no major changes are made to the system in the short term. However, there are a number of small changes within the system that could be considered immediately (recommendations two and three) as well as some larger changes that could be considered in the longer term (recommendations four to six).

Recommendation two: the Ministry and the NZTA clearly communicate their position on the issue of RUC liability at the 1.5 tonne VDAM enforcement tolerance. The introduction of a permanent RUC weight for each vehicle has greatly simplified the RUC system, but the evaluation found that there was still confusion amongst operators where RUC interacts with the VDAM Rule, particularly around RUC liability on the 1.5 tonne VDAM tolerance. We note that the Ministry and NZTA have recently developed operational guidelines which clearly state their position on this issue. This is a positive step and we recommend implementing an awareness and education programme to ensure transport operators are conversant on their RUC obligations on overweight vehicles.

Recommendation three: consider creating an additional vehicle type or types for larger motorhomes. As non-commercial operators, owners of large motorhome appear to be particularly affected by the changes to RUC system. The majority of motorhomes fall into weight bands up to 12 tonnes, and have not been significantly impacted by the changes. However, owners of some vehicles with RUC weights above this level have seen very substantial increases in their RUC. Careful consideration would need to be given to how a motorhome vehicle type would be defined and classified. It may be possible to identify the key features of a motorhome (for example vehicles that have a water tank, toilet and waste tank) and create a new vehicle type for motorhomes to reduce the disadvantage currently experienced by some owners.

Recommendation four: investigate the use of technology to move some RUC processes from a manual to electronic format. A logical first step is to move to an electronic refund processing system. The manual process of filling out paper-based forms (for operators and electronic RUC system providers), followed by manual data entry for the NZTA, is time consuming and an electronic refund application process would offer efficiency gains, as well as increasing the speed at which refunds are received.

Recommendation four: investigate post-payment of electronic RUC. Electronic RUC systems offer potential for efficiency gains and enhance the integrity of the RUC system. Aside from a reduction in the cost of EDRs, a key incentive to move to electronic RUC is the ability to post-pay RUC. Now that changes to the RUC system are starting to bed in we recommend further exploration of post-payment, which we understand the Ministry has already begun. One of the issues that would need to be considered is the risk of lost revenue through non-payment, including clarity about where the debt sits if the transport operator fails to pay.



Recommendation six: consider either (a) including provisions for more flexible use of, or (b) removing discounts for, combination vehicles: The evaluation found that, although RUC combination vehicle discounts are intended as a concession for vehicle operators that always operate in a specified combination, there is a perception amongst some operators that the inflexibility to uncouple vehicles in inhibiting efficient vehicle use and in some cases acting as a barrier to moving to HPMV permits. The recent amendment to regulations to allow for combination vehicles to operate out of combination whilst unladen is likely to address some of the issues raised. However, there remains dissatisfaction amongst operators that they are unable to use their vehicles as flexibly as they would like. This could be addressed in two ways:

- a) As more vehicle operators move to electronic RUC systems changing vehicle combinations would be relatively easy to manage and the Ministry may wish to investigate allowing more flexible use of combination vehicles in the medium term (3–5 years).
- b) An alternative option is to remove the concession for combination vehicles. This would remove the perception that operators who need to uncouple their vehicles are being disadvantaged by not being able to access the discount. The process of removing the discount would require giving a long notice period to the operators affected, and then averaging the difference in RUC rates between combination licences and non-combination licences for truck and trailers of the same configuration (e.g., four axle truck and four axle trailers).


APPENDIX A: DETAILED EVALUATION QUESTIONS

The evaluation focused on a number of specific questions under each of the expected outcomes of the new RUC system, as well as a small number of overarching questions related to the overall objectives of the changes to the RUC system (efficiency, equity, cost recovery and integrity) and the strengths and weaknesses of the new RUC system. The detailed evaluation questions are outlined in table 8 below.

Table 8: Detailed evaluation questions.

Expected outcome	Evaluation questions			
Increased understanding of the RUC system	 How effectively have the changes to the RUC system been communicated? How well is the new RUC system understood by government, transport operators, and other stakeholders? To what extent is the modernised system easier to understand than the old system? 			
Reduced compliance costs for operators	 What changes in operator administrative practices have occurred since the implementation of the new RUC system? What impact have the RUC changes had on operators' compliance costs (e.g. purchasing licence, claiming refunds) related to RUC? Where do the costs and savings fall (e.g. time buying licence or claiming refunds)? Where is the potential for future costs and savings? 			
Revenue neutrality within groups of vehicles	 Which user groups have financially benefited from the RUC changes? Which user groups have not? Have the RUC changes had any disproportionate impacts on operators within and across different groups of vehicles? 			
Reduced administrative complexity for government	 What impact have the RUC changes had on the NZTA's administrative processes? What impact have the changes had on the NZTA's operational costs related to RUC? What impact have the RUC changes had on the complexity and cost of investigations to recover unpaid RUC? What impact have the RUC changes had on third party providers (i.e. providers issuing RUC licences on behalf of the NZTA)? 			
Reduced evasion	 What impact have the RUC changes had, or are likely to have, on the level of evasion? To what extent have the RUC changes contributed to changes in operator perception and behaviour regarding evasion, including weight-based evasion and odometer fraud? 			
Improved effectiveness and efficiency of recovery of unpaid RUC	 What impact have the RUC changes had on the NZTA's ability to detect evasion? What impact has the new record keeping requirements had on identifying evasion? What impact has binding assessments had recovering unpaid RUC? What impact have the changes to the offenses and penalties regime had on recovery of unpaid RUC? 			



Simplified enforcement	•	What impact have the RUC changes (e.g. the table of fees) had on NZ Police enforcement procedures?
of RUC	٠	What impact have the RUC changes had on NZ Police time spent on enforcement?
Reduced late payment	٠	What impact have the RUC changes had on the level of late payment?
	٠	What impact have the RUC changes had on vehicle loading?
Improved efficiency in	٠	Have operators or other users changed their vehicle use patterns in other ways (e.g. frequency of trips)?
venicie use	٠	Have the RUC changes had any impact on the NZ vehicle fleet to date?
	•	What future changes to the fleet are likely?
	•	What impact have the RUC changes had on electronic system providers?
Enhanced RUC system through the use of	•	What impact have the RUC changes had, or are likely to have, on administrative costs for the NZTA in assessing applications from providers?
electronic RUC systems	٠	To what extent have operators taken up electronic RUC systems?
	•	What are the barriers for operators to moving to an eRUC system?
	•	What impact have the RUC changes had on the overall equity, efficiency, cost recovery and integrity of the RUC system?
	٠	What has worked well with the changes and what has not?
Overarching evaluation questions	•	Are there any unintended or unexpected effects occurring as a result of the changes to the RUC system?
	•	What are the main advantages of the modernised system over the previous system? What are the main disadvantages?
	٠	What improvements could be made to the RUC system?



APPENDIX B: CASE STUDY FRAMEWORK

The evaluation collected in depth data from ten case studies of transport operators to examine the implementation and impact of the RUC changes on specific operator and user groups. The framework through which the case studies were selected is outlined in table 9.

Number	Industry	Type of load	Ownership model	Urban/rural
1	Aggregates distribution	Bulk solids	Fleet	Urban and rural
2	Furniture removals (three organisations representing different sized operations)	Light and bulky	Fleet and Owner/driver	Urban
3	Food/grocery distribution	Light and bulky	Fleet	Urban
4	Dairy	Bulk liquids	Fleet	Rural
5	Tour buses/coaches	People	Fleet	Urban and rural
6	Urban public transport	People	Fleet	Urban
7	General transport (large company)	Variable	Fleet	Urban and rural
8	General transport (three owner/ operators)	Variable	Owner/driver	Urban and rural
9	Motorhomes (three motorhome owners)	People	Non-commercial owners	Urban and rural
10	Forestry/logging	Bulk solids	Fleet	Urban and rural

Table 9: Framework for the selection of case studies



APPENDIX C: SURVEY OF TRANSPORT OPERATORS

The Ministry of Transport has appointed Allen + Clarke to evaluate changes to the Road User Charges (RUC) system. The purpose of the evaluation is to determine whether the changes have been effective, to compare the new RUC system to the previous system, and to identify any adjustments or changes that might improve the new system.

We would be grateful if you could answer some questions based on your experience of the RUC system. Please complete the survey by 26 April 2013. It will take no longer than 10 minutes to complete.

Your responses will be grouped with others who complete the survey, so that individual responses cannot be identified. Your participation in this survey is completely voluntary.

To complete the survey, please select the option that best describes your experience, and write any comments in the boxes provided. Your answers will be saved automatically once you have finished.

All completed surveys will go into a draw to win one of four \$100 grocery vouchers.

If you have any questions about the survey please contact Marnie Carter on 04 890 7322 or email mcarter@allenandclarke.co.nz.

Section A: About you

First, a few questions about you so that we can make sure we get views from a wide variety of people affected by the RUC changes.

1. Are you answering this survey:

- C As a commercial transport operator
- C As a private individual (i.e. a non-commercial vehicle operator)

2. Are you answering this survey:

- On behalf of a organisation
- C As a self-employed or individual contractor

3. Which of the following best describes your interest in RUC?

- C Commercial freight operator
- C Commercial business other than passenger or freight transport
- C Light diesel vehicle owner
- O Motor home owner
- O Passenger vehicle operator
- C Farm or agricultural vehicle owner
- O Motor vehicle trader
- Other (please specify)

4. Where are you located?

- O Northland
- O Auckland
- C Bay of Plenty
- C Waikato
- C Gisborne
- C Taranaki
- C Hawkes Bay
- Manawatu-Wanganui
- O Wellington
- O Nelson
- C Tasman
- C Marlborough
- O West Coast
- C Canterbury
- Otago
- C Southland
- Other (please specify)

5. How many vehicles (including trailers) on which RUC is payable do you own or operate?

- O 1-4
- C 5-24
- C 25-49
- 50-99
- 100-249
- 250-499
- C 500+

6. What type(s) of vehicle do you own? (tick as many as relevant)

- □ Specialised agricultural vehicle or other mobile machinery
- Vehicle under 3.5 tonnes maximum weight
- Truck with 2 axles more than 3.5 tonnes
- Truck with 3 axles
- Truck with 4 axles
- Truck with 5 or more axles
- Passenger service vehicle with 2 axles
- Passenger service vehicle with 3 or more axles
- Motor home over 3.5 tonnes
- Heavy combination vehicle (e.g. truck and trailer, B train, articulated truck)
- Trailer with 1 axle
- Trailer with 2 axles
- Trailer with 3 axles
- Trailer with 4 axles
- Trailer with 5 or more axles
- Other (please specify)

7. P	Please indicate which, if any, vehicles you operate that are exempt from RUC?
	Tractor
	Bulldozer
	Front end loader
	Forklift
	Self-propelled or towed vehicles designed for agricultural purposes (for example, combine harvester or hay rake)
	Other (please specify)
8. F	Please indicate which, if any, of the following you carry (tick as many as relevant):
	Aluminium and steel
	Cement
	Construction materials
	Fertiliser
	Fish and shellfish
	Furniture
	Horticultural and other agricultural products
	Logs
	Manufactured food and beverages
	Meat (including livestock)
	Milk and dairy
	Other chemicals
	Other manufactured products
	Other metals
	Passengers
	Petroleum
	Timber
	Other (please specify)

Section B: Changes to the RUC system

Now we'd like to hear about your views and experiences of the changes to the RUC system.

st9. Are you aware that changes were made to the RUC system in August 2012?

O Yes

No

10. To what extent have the following changes affected you or your business overall?

	Negative impact	Neutral impact	Positive impact	Don't know/ NA
Changes to the RUC weight definitions	C	C	O	O
Creation of new vehicle types	C	\odot	O	O
Removal of time licence system	C	O	C	O
Removal of the supplementary licence system	O	O	C	C
Changes to the list of exempt vehicles	C	O	C	O
Changes to the RUC offences and penalties regime	O	O	C	C
Other (please describe below)	C	O	C	O

Describe other

* *

11. How did you hear about the changes to the system? (tick as many as relevant)

- Industry publication or magazine
- Correspondence from an industry group or association
- NZTA website
- □ NZTA and Ministry of Transport road show for transport operators
- NZTA brochures or advertising
- Word of mouth
- Other (please specify)

12. How would you rate the quality of information you saw?

- O Poor/inadequate
- O Barely adequate
- O Neutral
- C Good
- C Excellent
- C Don't know/NA

13. How well do you understand the changes to the RUC system?

- C Don't understand at all
- C Don't understand very well
- O Understand moderately well
- C Understand well
- O Understand very well
- O Don't know/NA

14. Compared to the previous RUC system, how have the changes impacted on:

	Significantly decreased	Decreased	About the same	Increased	Significantly increased	Don't know/NA
The overall cost(s) of your RUC licence(s)	C	0	C	O	C	О
Your time spent on RUC administration (e.g. buying RUC licences, applying for refunds)	O	O	O	O	O	O
Please provide any relevant comments to support your answers:						

15. To what extent do you agree that overall the changes to the system have been fair?

Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
C	O	O	O	O

A

Please provide any relevant comments to support your answer:

16. Overall, what do you see as the main benefits of the new RUC system? List up to 3:

1.	
2.	
3.	

17. What do you see as the main problems or issues with the new RUC system (if any)? List up to 3:

1.	
2.	
3.	

***18.** Have you purchased any vehicles that required a RUC licence since August 2012?

- O Yes
- O No

19. To what extent did you consider RUC costs when purchasing this vehicle(s)?

Did not consider RUC at all

RUC was a minor consideration

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RUC was a consideration

0

RUC was a major consideration RUC was the main consideration

▲.

Please provide any relevant comments to support your answer:

Section C: Commercial transport operators

We are interested in how the changes to the RUC system have impacted on commercial transport operators.

*20. Are you are commercial transport operator?

O Yes

No
 No

21. As a result of the changes to the RUC system, are you more likely to:

	No	Yes, somewhat more likely	Yes, significantly more likely	e I am not able to/NA	Don't know
Load vehicles to the maximum weight wherever possible?	C	C	O	O	O
Backload vehicles wherever possible?	O	O	\odot	O	C
Make fewer trips?	O	C	O	O	Õ
Match a vehicle to the task (eg use a small vehicle to carry a light load)?	C	O	C	O	C

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Please provide any relevant comments to support your answers:

22. Do you use fleet tracking services such as those provided by EROAD or International Telematics?

- O Yes
- No

23. Do you use an electronic distance recorder/eRUC system to manage your RUC obligations?

- Yes
- O No

24. To what extent do you agree that the following are benefits of using an eRUC system?

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Reduces compliance costs	O	C	O	O	O
Easier to apply for refunds	O	O	O	\odot	O
Removes need for a hubodometer	0	C	0	0	O
Other (please describe below)	O	C	C	C	O
Please describe other					

Thank you for completing the survey. If you would like to enter the draw for one of four \$100 grocery vouchers please enter your email address below.

25. Email address