Regulatory Impact Statement:
Road user charges review: Change to the definition of licence weight

Agency disclosure statement

1. This Regulatory Impact Statement (RIS) has been prepared by the Ministry of Transport (the Ministry).

2. It provides an analysis of options to simplify weight measurement for the purpose of road user charges (RUC), as part of the implementation of decisions arising from the Independent Review of the New Zealand Road User Charging System (the Review). The options would, to varying degrees, reduce compliance costs and make the system more user-friendly for operators, simplify administration and enforcement of RUC, and largely eliminate evasion that results from purchasing RUC licences at weights lower than those actually carried.

3. The Ministry has used information contained in the motor vehicle register to model the effect on RUC rates of charging vehicles using a different definition of vehicle weight. It has also considered the feasibility of introducing compulsory real-time on board weighing systems to the heavy vehicle fleet as an alternative option for simplifying weight measurement.

4. Approximately 20 percent of the information contained in the motor vehicle register is incomplete or inaccurate. The NZ Transport Agency removed much of the erroneous data contained in the register to provide a more accurate set of data for this analysis. Although incomplete, the Ministry considers that the data in the motor vehicle register, because it is still representative of the composition of the vehicle fleet, provided sufficient information to identify how changes in the definition of vehicle weight would affect RUC rates for all vehicle types and weights.

5. This RIS supports only decisions that are required at this stage. The Ministry believes that no further work is required before a decision to change the definition of weight for RUC purposes can be taken.

6. Further work will be required to confirm the detail of the definitions of vehicle types and weight bands prior to the making of regulations to implement the simplified RUC system. A separate RIS will be provided when Cabinet is asked to consider those proposals.

7. The policy options comply with the Government Statement on Regulation.

Brent Johnston
Adviser
Ministry of Transport

23 June 2010

Status quo and problem definition

8. The Road User Charges Act 1977 defines weight for the purpose of RUC as the actual weight transmitted to the road surface through a vehicle's wheels. This requires vehicle operators to nominate the maximum gross laden weight their vehicle will carry for the duration of the distance covered by the licence they are purchasing (distance licences are sold in multiples of 1000 kilometres). If operators need to carry a higher weight than permitted by their distance licence for a specific journey, they can purchase a supplementary licence (which is sold in multiples of 50 kilometres).

9. The complexity of the current RUC system creates much confusion and dissatisfaction for operators. A number of submitters to the Review identified an undue burden on operators caused by the time, cost and inconvenience involved in complying with the current system.

10. Managing RUC requirements is made difficult for operators by the need to know in advance what the maximum weight of their vehicle will be for the duration of the RUC licence. For many operators this information is neither readily available, nor easy to obtain, and for operators whose vehicles carry loads that vary in weight considerably, this is particularly difficult to know.

11. A recent survey of RUC payers found that on average, businesses spend 103 hours per year purchasing RUC licences, and an additional 119 hours per year on other RUC-related issues. The direct wage cost alone of these transactions is conservatively estimated at $19 million per annum[1].

12. Charging on the basis of actual weight encourages operators to purchase a RUC licence as close as possible to the maximum weight they anticipate their vehicle will be for the duration of that licence. This provides scope for revenue leakage either through deliberately purchasing RUC licences at weights lower than those actually carried, or by unintentionally underestimating the actual weight of the vehicle.

13. Some operators try to optimise their RUC purchases by purchasing a distance licence for a relatively low weight and then using supplementary licences as required for carrying heavier loads. Other operators 'over-purchase' on their distance licence to avoid the risk of being checked without having the correct licence[2]. Both approaches create further inconvenience for operators and impose additional compliance costs, and in each case there remains a risk that operators will still underestimate the weight of the vehicle.

---

[1] Source: *An Independent Review of the New Zealand Road User Charging System*, 31 March 2009, p 54.

[2] Over-purchasing refers to the action of purchasing RUC licences for weights an operator may carry over the duration of a distance licence, rather than what is actually carried for the duration of the licence.

14. Although difficult to quantify, the Ministry estimates that total revenue leakage from RUC evasion is in the region of $43 million per annum. This represents about five percent of total RUC revenue collected, and comprises approximately $30 million from heavy vehicles and $13 million from light vehicles. It is unclear what proportion of revenue leakage is the result of underestimating weight but the Review considered that much of the potential for RUC evasion came from the opportunity to purchase RUC licences for incorrect weights.

15. Enforcement of RUC weight over a fleet of approximately 160,000 heavy vehicles incurs considerable time and cost. RUC enforcement takes place in conjunction with roadside inspections for vehicle safety compliance. The RUC component of a roadside inspection takes approximately five minutes. The New Zealand Police are commissioned to undertake 100,000 RUC inspections each year, and incur enforcement costs of approximately $0.5 million per year in doing so. The total time vehicles spend on the roadside while the RUC component of an inspection takes place, costs businesses approximately $0.2 million per annum in wage costs alone[3].

16. The Review considered that much of the difficulty and confusion associated with the current RUC system was due to the way weight is measured. The Review recommended that the current allowance for transport operators to nominate operating weight be replaced with charging on the basis of maximum permissible gross laden weight. It also recommended that supplementary licences be discontinued.

Objectives:

17. The objectives of simplifying weight measurement for the purpose of RUC are to:

    16.1 reduce compliance costs and make the system more user-friendly for operators

    16.2 simplify administration of the RUC system

    16.3 make enforcement of RUC less complex and less costly

    16.4 reduce the scope for error or fraud in RUC licence purchases

    16.5 remove the necessity for supplementary licences

    16.6 provide an incentive to make more efficient choice and use of vehicles

[3] Assuming 100,000 roadside assessments are undertaken per year, and an average industry wage of $19.63/hour.

Regulatory Impact Analysis

Option One: Changing the definition of vehicle weight from actual weight to maximum permissible on-road weight

18. Under this model, vehicles will be charged for the maximum weight they can legally carry on the road, their "RUC weight". A vehicle's "RUC weight" will be determined as the lesser of that vehicle's maximum gross laden weight as specified by the vehicle's manufacturer or its mass limit as set by the Vehicle Dimensions and Mass Rule 2002.

19. Operators will no longer be required to estimate the actual weight of their vehicle, which will remove a significant part of the everyday time, cost and inconvenience experienced by operators trying to comply with the RUC system.

20. Charging for a vehicle's "RUC weight", rather than its actual weight, removes the additional cost incurred by operators who currently over-purchase on their distance licences to avoid the risk of running over-weight, as all operators will pay for the maximum load they can legally carry on the road.

21. This option will remove the need for supplementary licences, which will eliminate one facet of the current system which adds complexity and inconvenience for operators. A corresponding reduction in the number of RUC transactions and operator compliance costs can be expected. The incentive to optimise RUC purchases by utilising the supplementary licence system will also be removed. Instead, operators may optimise their RUC purchases by making more efficient vehicle choices, and using those vehicles to their maximum capacity.

22. Information provided to the Review by Research New Zealand suggests that approximately 60,000 hours are spent each year by operators completing supplementary licence transactions[4]. Complete removal of supplementary licence transactions would result in wage cost savings alone to businesses in the region of $1 million per annum. However, as some form of additional licence will still be required for vehicles that have permits to operate at weights above their normal capacity, the actual cost saving will be slightly lower than this estimate.

23. As operators will no longer be able to estimate the actual weight of their vehicle, the possibility that operators will evade RUC by under-estimating the actual weight of their vehicle will be removed. The Ministry expects there will be a significant reduction in total evasion (currently estimated at $43 million per annum) but it is not possible to estimate the size of the reduction.

24. RUC are set at rates to recover a given level of revenue; rates are effectively higher than they otherwise would be in order to recover revenue leaked through evasion. This results in operators who currently meet their

[4] This includes travel time, waiting time and queuing time where applicable.

RUC obligations in full effectively subsidising operators who do not. Removing the opportunity for weight-based evasion will reduce the subsidy effect, benefiting those operators who already comply with the system. The reduction in evasion will not result in any fiscal benefit accruing to the Crown, but it will improve equity for operators. The reduction in evasion does not benefit operators through a reduction in the RUC rates they are currently charged, but may delay the need for any future increases in rates.

25. The need for separate enforcement of weight-based RUC compliance, as distinct from enforcement of other vehicle safety regulations, ceases under this model due to the elimination of weight-based evasion. A corresponding reduction in the weight-related RUC enforcement costs of the Police ($0.5 million per annum) can also be expected. The Ministry expects that enforcement hours for approximately four full-time equivalent Police officers will be able to be transferred to safety related roadside vehicle assessments[5]. The Ministry does not envisage there will be any fiscal saving to the Crown from the reduction in weight-related enforcement of RUC.

26. The cost incurred by operators while vehicles are stopped at the roadside is also reduced ($0.2 million per annum). Additional benefits will accrue to operators through reduced travel times and improvements in the timetabling and efficiency of road transport operations.

27. There will be significant administration cost savings for the NZ Transport Agency. A large part of the cost of administering the RUC system is incurred investigating and recovering unpaid RUC. With the elimination of weight-based evasion there will be a decrease in the number of RUC investigations made by the NZ Transport Agency.

28. The NZ Transport Agency considers that the simplification measures in this option will also assist it to further reduce administration costs through streamlining payment methods. The NZ Transport Agency will incur additional costs to implement the simplified RUC system under this option. While some of these costs can be absorbed, the NZ Transport Agency has identified costs of $1.425 million that cannot be met from the existing appropriation for Road User Charges Collection, Investigation and Enforcement.

29. The Ministry considers that if implemented, this option will require a change to charging in wider weight bands, and possibly changes in the classification of vehicle types. Setting charges using a scale with one tonne increments (as per the status quo) would likely lead to significant inequities between operators with vehicles performing the same tasks, but with slightly differing maximum weights. It may also lead to disputes around the definition of individual vehicle weights, and requests for vehicles to be re-classified at more advantageous weights.

[5] Calculation based on the Police being commissioned to undertake 100,000 RUC roadside assessments each year which take approximately five minutes each. A full-time equivalent Police officer is assumed to work 37.5 hours each week.

Option Two: Introducing compulsory real time on-board weighing systems

30. An alternative option to simplifying weight measurement for RUC charging is to introduce compulsory real time on-board weighing systems.

31. Introduction of on-board weighing systems would significantly reduce the time it takes for a vehicle to be checked as being over-weight at weigh stations, reducing the cost incurred by operators. It would also allow vehicle operators to operate more efficiently by running at their maximum weight, without having the risk of running over-weight, as this could be checked prior to departure.

32. It would still be possible for a vehicle operator to evade RUC by purchasing RUC licences for less weight than is carried, but checking the weight of the vehicle would be easier for enforcement officers and quicker for vehicle operators.

33. The Review considered that on-board weighing technology was not yet mature enough to provide a sufficiently reliable method of weight measurement for charging purposes.

34. Australia is investigating the possibility of introducing on-board weighing systems for the upper-end of its heavy vehicle fleet. Initial trials have been promising with regard to reliability and accuracy. However, implementation of such a system is still some time away.

35. On-board weighing would not be applicable to the majority of RUC paying vehicles in New Zealand. It is not designed for light vehicles and unlikely to be cost effective for many small and medium sized heavy vehicles.

36. Any economic benefits from on-board weighing would be greatest for vehicles that are at the upper end of the permissible weight scale. At this stage, however, it is not possible to carry out a realistic assessment of the costs and benefits.

37. Option One does not preclude the introduction of on-board weighing systems, which would assist operators to ensure that their vehicles remain within their RUC weight limits. The technology may have particular application for operators who are operating on over-weight permits restricted to specific routes. Over time, if these systems are shown to be accurate and reliable, it may be appropriate to use them to develop a more sophisticated charging regime for the heaviest vehicles.

38. However, existing on-board weighing devices have in-service reliability issues as devices can be damaged very easily. The Police do not consider that existing on-board weighing devices are of an acceptable standard to use as an enforcement tool.

Consultation

39. The following government departments and agencies have been consulted on the proposed option of changing the definition of vehicle weight from actual weight to “RUC weight”: the NZ Transport Agency; the Treasury; and New Zealand Police.

40. The following industry stakeholders have been consulted on the proposed option of changing the definition of vehicle weight from actual weight to "RUC weight": the Road Transport Forum New Zealand; the New Zealand Automobile Association; the New Zealand Forest Owners' Association; the Bus and Coach Association New Zealand; the Motor Trade Association; the Motor Industry Association; Federated Farmers; the Crane Association; and the New Zealand Motor Caravan Association.

41. Stakeholders were largely supportive of the Review's recommendation to replace operator nominated weights with "RUC weights", and expressed a clear preference for charging in weight bands rather than in one tonne increments (as per the status quo).

42. Some stakeholders were concerned that the proposed changes represented a move away from direct charging, where charges reflect the costs users impose on the network, to a more indirect method of charging which makes the linkage between charges and road damage less direct.

43. The Ministry notes that although there is a greater degree of averaging in the recommended option, the cost allocation model which is used as the basis for setting RUC rates, already involves a large degree of averaging and approximation. The current one tonne incremental RUC scale may be misleading in implying a higher degree of accuracy in determining charges for individual vehicle types than is actually involved.

44. The New Zealand Automobile Association expressed concern that there had not been sufficient analysis to identify the full economic costs and benefits of the proposed change to the definition of vehicle weight, and the impact this would have on transport pricing.

45. The Ministry considers that the analysis carried out was sufficient to identify how changes in the definition of vehicle weight would affect RUC rates for all vehicle types and weights. To identify the full impact of this proposal on transport pricing would require accurately predicting operators' responses to the proposal, which the Ministry does not consider feasible to model.

46. However, at a general level the Ministry does not consider that this proposal will change the competitive position of competing road transport operators, as operators competing for similar loads will continue to face similar levels of charges under the proposed option. It also does not believe that implementation of the proposed option will have a major impact on the economics of road freight relative to other modes. RUC generally make up only about 10 percent of heavy vehicle operating costs, which suggests a small change in the RUC cost is unlikely to have a significant overall effect on the cost of road freight.

47. The remaining concerns raised by the stakeholders largely relate to detail surrounding the RUC rates operators will face under the proposed option. The main comments from stakeholders included:

    44.1 a concern that there needed to be greater differentiation of charges for light vehicles in order to: reward smaller, fuel efficient vehicles;

better reflect a perceived difference in the extent of damage caused to the road by different sized small vehicles; improve tax paying equity with equivalent petrol vehicles

44.2 a concern that vehicles carrying weights higher than their normal maximum capacity were adequately charged for the additional damage these vehicles will cause to the network

44.3 proposals that there should be changes to the definitions of vehicle types to distinguish between trucks and other vehicles that have similar configurations but different body types (eg buses and mobile cranes). Stakeholders considered these vehicles to have a different purpose to trucks of the same vehicle type, and to be unfairly penalised by both the existing and proposed RUC system.

48. Encouraging and rewarding fuel efficiency is not at present a purpose of RUC. The RUC system works on a cost recovery principle. An additional provision in the Road User Charges Act 1977 enabling charges to reflect fuel use and emissions would be required if RUC rates were to reflect this purpose.

49. The Ministry considers that this would add further complexity to the RUC system. It believes that as RUC makes up only a small proportion of total vehicle running costs, any reduction in RUC rates from changing the purpose for which rates are set is unlikely to provide a large incentive for operators. The Ministry therefore does not recommend that such a provision be considered at this time, instead retaining the focus of the RUC system on cost recovery.

50. The Ministry will investigate the remainder of the concerns raised by stakeholders as part of the development of regulations to implement the simplified RUC system. Further consultation with stakeholders will be undertaken as this work progresses.

Conclusions and recommendations

51. The Ministry recommends Option One, which satisfies all of the policy objectives.

52. Option One will make the RUC system more user friendly for all operators, rather than only those who operate vehicles at the heavier end of the fleet. It also contributes the greater reduction in compliance costs for operators. It will result in significant administration cost savings for the NZ Transport Agency, and will assist it to further reduce administration costs through streamlining payment methods.

53. Option One also completely eliminates weight-based RUC evasion. While Option Two simplifies enforcement of RUC, Option One better addresses the means for evading the system, the source of the actual problem. The Ministry considers it important to address evasion in order to maintain the integrity of the RUC system and provide more equity for operators.

54. Option One does not preclude the introduction of on-board weighing systems (Option Two). However, Option Two is not recommended as the

technology in its present form is not readily available, its accuracy and reliability are yet to be fully established and it is not possible to determine whether there would be any net benefits. It also only has applicability for the heavy vehicle fleet, thereby providing no real benefits for light vehicle operators who make up the large majority of RUC paying customers. It is also unlikely to be cost effective for all heavy vehicles and does not address all of the policy objectives.

55. In the longer term this technology may have some application to vehicles at the heavier end of the vehicle fleet, but the Ministry considers that it is not feasible to consider this option now or in the near future.

Implementation

56. Changing the definition of vehicle weight requires a legislative amendment to the Act. [**withheld**]

57. The passage of legislation will see the Bill passed in early 2011.

58. New regulations will be made that will provide for the definitions of vehicle types and weight classes. There will be further consultation with key stakeholders in relation to the definitions of vehicle types and weight classes.