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Sustainable Transport – Update of the New Zealand Transport Strategy

Submission to the Ministry of Transport
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Introduction

The Institution of Professional Engineers New Zealand (IPENZ) is the lead national professional body representing the engineering profession in New Zealand. It has approximately 10,000 Members, including a cross-section from engineering students to practicing engineers to senior Members in positions of responsibility in business. IPENZ is non-aligned and seeks to contribute to the community in matters of national interest giving a learned view on important issues, independent of any commercial interest.

In preparing this submission IPENZ Members have been consulted with, and their views have been incorporated into this submission.

Executive Summary

IPENZ is disappointed that this review has taken the form of an update (with the inclusion of targets) and is not a fundamental review of the New Zealand Transport Strategy (NZTS).

IPENZ has a number of overall concerns with the document:

- In our view some of the original 2002 NZTS objectives were sub-issues and the continuing use of these leads to duplication of issues and inappropriate funding priorities.
- The Updated New Zealand Transport Strategy (UNZTS) includes no working-level actions, and funding requirements are not identified.
- There will be no consultation on actions and accountabilities that are proposed to be subsequently developed in the final NZTS.
- The timeframe of 30 years is an impractically long period for developing targets.
- There is little information on how the targets were determined, or how much it will cost to meet the targets. Hence there is little confidence that they can be achieved.
- Many targets are vague.
- Aspirational targets in a vision for promotional purposes should not be confused with the “hard” targets of a strategy.
- National targets are in many cases of little benefit.

- IPENZ does not understand how national targets can be designed when regional targets are still being developed by Land Transport New Zealand (LTNZ).

It is IPENZ's view that a fundamental review of the NZTS should be undertaken and a conventional national transport strategy prepared with a 10-year timeframe.

Assisting economic development

To achieve travel time reductions in both urban and rural areas requires a major increase in infrastructure annual budgets. IPENZ has considerable doubt that the targets are achievable given the very high dependency of society on the private car.

There is no reference in the document to network resilience and the potential provision for network redundancy, and targets should be developed for this. The proposed study of North Island freight should be extended to the South Island.

There has been insufficient research on freight to date and on the interrelationship between modes. There is also little consideration of the interrelationships between international passenger and freight transport and how external pressures may reflect on domestic transport. Also, it will be very difficult to achieve mode shifts of the scale proposed. In light of this, IPENZ believes that not only are the current targets unachievable, it is premature to develop rail and sea targets for freight.

Assisting safety and personal security

The target of 200 road deaths per annum is unrealistic without a quantum change in our roading system and regulatory and enforcement interventions, such as the driver licensing regime and insurance. This target does not appear to be well founded.

Fleet changes to achieve better safety outcomes need to be based on sound research, an analysis of the options of the various fleet improvements, and an analysis of their effectiveness.

Improving access and mobility

In practise, urban intensification of main centres can deliver more sustainable communities and optimise community wellbeing. However, urban design issues can be very localised and distinctive to the local environment. Consequently a national urban design target would not be useful. Urban intensification is not desirable, either economically or socially, in a number of circumstances as reduced travel demand is only one of the outcomes that communities desire in a well-designed urban environment. Further advice on urban design is supported.

There is recognition that only a relatively modest change in the overall mode share of public transport (PT) can be achieved. Hence the contribution of PT to reducing carbon emissions is likely to be small compared to the possible gains from changes to the vehicle fleet.

In view of the very high investment cost for PT, particularly rail-based, there needs to be more justification that the PT targets represent a cost-effective use of capital.

Protecting and promoting public health

IPENZ questions whether a "Public Health" objective should exist – see the earlier discussion. IPENZ believes the safety interest is best served by using transport safety as an objective.

The target of increasing cycling trips by 30 per cent is a national average and is too simplistic – regional targets are required. The best way to increase cycling trips in particular is by ensuring there are completed networks, but their development needs to be supported by a formal investment analysis, recognising the relatively small mode shifts that can be achieved. Walking and cycling facilities can be promoted by widely publicising before-and-after usage.

Ensuring environmental sustainability

It is IPENZ's view that the target of halving transport emissions by 2040 is unachievable. In addition, environmental improvements should be achieved by setting minimum standards for fuel economy and emissions rather than attempting to pick winning technologies or regulate engine sizes. Government should be focusing on desired outcomes. IPENZ believes that price incentives, such as higher registration fees for larger engines and lower fees for hybrids, would also be an appropriate intervention. These steps will drive technological improvements. IPENZ opposes the decision to be one of the first countries to widely deploy electric vehicles without any formal evaluation of this decision and the costs of the supporting infrastructure, but does support establishing environmental outcomes and mandatory minimum standards.

Issues to make progress

What are missing from the UNZTS are targets relating to the operation and maintenance of transport assets. These need to be developed for all modes to enable the state of transport infrastructure assets to be monitored. Maintenance of existing assets should take precedence over the creation of new assets.

Transport planning and land use planning can be better promoted by strengthening some of the provisions of the Resource Management Act that link the two issues.

In conclusion, the key elements to improve New Zealand's transport system should be based on substantial investment in new infrastructure combined with demand management. Appropriate demand management measures include: information; education; better provision of passenger transport; promotion of walking and cycling; travel plans; and road pricing. Full road pricing (including externalities) should ultimately be the tool used to influence travel behaviour.

Submission

Following are our responses to the questions as outlined in the discussion paper.

- *In addition to the NZTS objectives and the targets detailed in this document, do you agree with the concepts outlined above?*

Is this a Review, an Update, or an Amendment?

The title, the introductory wording of this document, the Minister's release and the FAQs use confusing language about the nature of this document. However, when the document is read in its entirety it is clear that the main changes are to incorporate three recent government policy strategies (the New Zealand Energy Strategy, the New Zealand Energy and Efficiency Strategy and the Emissions Trading Scheme), and to develop targets for the five original objectives – the initial NZTS only had measurable targets for safety. This "update" appears to be simply an amendment to include these targets.

As this is not a fundamental review of the NZTS, many of the concerns raised by the industry about the 2002 NZTS still apply. In summary these were:

- The NZTS was a product of a particular political climate in 2002 and the document clearly carries that flavour – times have now changed.
- The document was developed without any effective consultation with the transport sector.
- There was widespread concern with the objectives and their balance.
- The NZTS was not a “strategy” as it contained no working-level actions, nor indication of funding needs to achieve the outcomes.

If government wished to develop an overall vision for transport, then the format of the 2002 NZTS is appropriate – without targets. By adding targets the document is now neither a vision nor a strategy, but a mix of the two. It is agreed that a vision is a desirable approach, together with a few aspirational “targets”, in order to take a long-term view of where we want transport to be in 30 years’ time. These types of targets are used for promotion purposes and should not be taken as “hard” targets. A similar approach has been the “zero waste to landfill” target – largely seen as unachievable but very useful for promoting and driving change. The UNZTS has mixed both approaches and the comprehensive targets in the UNZTS are too detailed for this purpose.

The Objectives

The five objectives of the NZTS have now been enshrined in the Land Transport Management Act 2003 (LTMA), the Land Transport Act 1998, the Rail Network Bill, and throughout LTNZ’s funding allocation framework. In preparing a land transport programme an approved organisation must take into account how each activity contributes to the five objectives. LTNZ must also consider them in approving activities.

During consultation in the 1990s four industry-agreed transport objectives were developed relating to economic, social, environmental and safety outcomes. These should have been recognised as sound and unchallengeable. In the 2002 NZTS sub-issues were elevated to the status of high-level objectives. These sub-issues included personal safety, access, mobility and public health. In the draft UNZTS, these issues have been carried across and this has led to duplication of issues within the objectives, such as safety and public health, (issue – crash data), environment and public health (issues – emissions, cycling), and access and mobility, and public health (issues – cycling).

There is no guidance in the 2002 NZTS or the LTMA on how trade-offs between objectives could be made, and no indication of relevant weightings. Accordingly all five objectives effectively have equal weighting. These factors have influenced funding decision-making, arguably to the detriment of the important high-level objectives such as safety.

What Should a Strategy Look Like?

A good place to start considering what should be included in a transport strategy Section 175 of the Land Transport Act 1998, which sets out what a regional land transport strategy must contain.

These include the following points which are not in the UNZTS:

- The funding likely to be available during the period of the strategy.
- The strategic options (and actions) to achieve the outcomes.

It is unrealistic to set targets without any understanding of whether they are affordable. To assess affordability, the costs and potential revenue need to be derived.

The UNZTS also provides no indication of how the targets might be achieved or the options that were considered.

It is noted that the action plan and accountabilities will be included in the final UNZTS and it appears there will be consultation at this stage. This significantly dilutes the effectiveness of the consultation process, as the objectives, actions and targets should be an integrated whole.

The Timeframe for the Strategy

The UNZTS has a term of 30 years. However, we note that, as the UNZTS is being developed, the Ministry is concurrently undertaking a “futures study”. In view of this IPENZ believes that it may be premature to develop targets for 2040. In addition, the changes in the next 30 years in transport will be considerable with major changes in technology, funding, land use, demographics and society. It is unrealistic to try and assess what the transport system might look like in years, let alone decide the implementation steps, or set targets.

A more realistic time frame is 10 or 12 years in alignment with local authority LTCCP cycles. Intermediate terms could be six years to align with regional land transport strategies which will contain similar targets.

Designing Targets

The targets are a mix of detailed targets, usually from established policy based on valid analyses, such as the road safety targets, and vaguely expressed targets, for example, “travel times by all modes will be predictable”, “public health effects to be at an accepted international standard”, “ensure a substantial reduction in premature deaths”, “manage noise to minimise any public health effects”. Some are not targets but are implementation actions – such as “remove barriers to the uptake of plug-in hybrids”.

There is little information on how the targets were determined, whether they are achievable and how much it will cost to meet the targets. While we understand that limited data is available on a number of the sustainability measures and targets, in our opinion more analysis should be undertaken of the various interventions and policies to assess whether they are likely to be effective. If this has been done, there is little evidence in the discussion paper.

If there is no evidence of “how” the targets can be met, then there can be no confidence that the targets are achievable – breaking one of the criteria of the SMART test for designing targets: specific, measurable, *achievable*, relevant and time-bound.

With national and long-range targets, particularly those that are “aspirational” in nature, or vague, it will be difficult to translate these into the funding allocation framework. The UNZTS and its targets needs to be able to be translated into a framework for assessing long-range strategic transport planning projects and for scheme assessments, design projects and construction projects. This need to translate targets into the allocation framework should be considered at the design stage. This should be a reiterative design process – in other words it should consider how the targets will be applied now.

We note that LTNZ recently issued an RFP (231/07) to design a set of sub-national targets, the options to achieve them, and their impact on the NLTP. While this is commendable, and a conventional approach to developing a strategy, it is difficult to understand how the UNZTS can recommend national targets in the absence of these regional targets.

Objective 1 - assisting economic development (p33)

- *Are our high-level targets appropriate – are there other approaches we could take?*

Travel times on main routes throughout New Zealand have been progressively increasing over the past 10 years. IPENZ cannot see the target to improve travel times being realised without substantial infrastructure investment and major increases in public transport usage in urban areas.

To achieve travel time reductions in both urban and rural areas requires a major increase in infrastructure annual budgets. On a per capita basis Australia spends nearly four times the current New Zealand budget. Many of our roads have not changed significantly in the past 50 years yet are carrying up to 25,000 vehicles per day on two single-lane carriageways (for example, State Highway 1 Coast Road - Pukerua Bay to Paekakariki).

There is no reference in the document to the resilience of the transport network to natural or man-made threats. Apart from natural disasters there are issues such as delays due to crashes and these require some consideration of risk assessment and redundancy particularly in the strategic network. Some of this type of work has been undertaken (for example, lifelines projects), but a more comprehensive approach is required, with matching targets.

- *Are additional targets needed?*

As outlined in the UNZTS, intra-regional travel time targets are required, as it is our view that national targets are not useful.

In addition, the issue of travel times is discussed under the “economic development” section, but it needs to be recognised that recreational trip demand is showing considerable growth particularly due to the very high level of outdoor activity in New Zealand, and this growth will affect travel times. It is suggested that some targets be developed for recreational travel – possibly under the accessibility objective.

- *Are our targets achievable given the necessary investment and behaviour change needed to reach them?*

IPENZ has considerable doubt that the targets are achievable given the very high dependency of society on the private car, for example, 62 percent of work trips in Wellington and 80 per cent of work trips in Auckland in 2006. For people to switch travel modes there has to be a powerful incentive. The incentives may be increased petrol or parking prices, new reliable buses or safe separate cycle lanes. A cycle lane and footpath on the Auckland Harbour Bridge is long overdue. (The original design had twin cycle/footpaths but these were deleted.)

- *How can we best achieve the substantial increases in mode share suggested for domestic sea freight and rail freight?*

IPENZ is mystified how targets for freight can be set when the Ministry of Transport is just initiating a freight study to establish baseline data for the volume of freight being moved domestically by different modes. It is clear that there has been insufficient research on freight, freight chains and hubs, and the interrelationship between modes. Where is the evidence that it is desirable to expand the freight capacity of rail and coastal shipping? There is a target to increase freight by rail to 25 per cent by 2040 and coastal shipping freight by 30 per cent. Is there any evidence that these targets are compatible?

The barriers to shifting freight from road to rail or coastal shipping are considerable because of the advantages of road for just-in-time deliveries, the speed in transporting perishable goods, and elimination of double handling. It may require upgraded infrastructure at railheads and ports funded from public funds, and potential subsidies. Therefore IPENZ believes these targets are unachievable.

There is also a proposal to conduct a desktop feasibility study on the efficiency of the North Island main trunk line. IPENZ believes that this should be extended to the South Island main trunk for freight and passengers.

There is little consideration of the interrelationships between international passenger and freight transport and how external pressures may reflect on domestic transport, including the main international gateways, and on the New Zealand economy in general.

Objective 2 - assisting safety and personal security (p37)

- *Are additional targets needed, for example, around security or perceptions of safety?*

Perceptions of safety are often a very useful measure for urban areas and these could be related to the *Quality of Life* reports.

- *Are our targets achievable given the necessary investment and behaviour change needed to reach them?*

The high-level target of operating to world best-practice safety standards for all modes is weak and poorly defined. What does this mean? Are the comparisons valid? The target of 200 road deaths per annum (4.5 deaths per 100,000 population) is unrealistic without a quantum change in our roading system. The current figure is 9.9 per 100,000 population. The rationale for this target seems to be the death rates of the Netherlands (4.6) and Sweden (4.9), which have very different population densities and topographies. This seems a very superficial basis on which to set targets.

There is no discussion in the UNZTS on the appropriate balance of priorities between engineering, education and enforcement – or indeed between drivers, vehicles and roads. IPENZ understands that the value per dollar for achieving safety outcomes is greater for engineering than education and enforcement and this type of analysis should be undertaken before targets are set.

Major regulatory interventions are also required, such as the driver licensing regime and insurance. In New Zealand people are allowed to achieve a full licence by 16.5 years and drive any vehicle without insurance. Compare this with most of Australia which has a three-year probationary driving period which cannot be completed before 20 years of age. During the probationary period no high-performance cars may be driven. There is no mention of reviewing the driver licensing regime in the UNZTS.

In New Zealand the lack of compulsory third party insurance means that young drivers with limited experience can drive any car regardless of performance. We allow drivers to use hand-held cell phones while driving when 35 other countries have banned them. Until we remedy all the above issues we can expect our fatality rate for 15 to 29 year olds (22 per 100,000 population) to continue to be 50 per cent higher than the same age group in Australia (14.8 per 100,000 population).

- *Should we, for example, develop initiatives to ensure turnover in our vehicle fleet is higher, to allow faster adoption of new safety technology?*

Fleet changes to achieve better safety outcomes need to be based on sound research. IPENZ questions whether people should be required to buy newer cars when it may be more effective to promote seat belt use. Also, IPENZ does not agree that the target of 25 per cent of light vehicles with electronic stability is appropriate when, for example, it may be more effective to encourage greater use of cars with air-bags. The UNZTS does not canvas these options, nor indicate whether there has been any research on options for the various fleet improvements, and their effectiveness.

Objective 3 – improving access and mobility (p43):

- *Are our high-level targets appropriate – are there other approaches we could take?*

The decline in bus patronage figures in Auckland since the 1980s is of concern, but patronage is only part of the picture. The figures need to be supplemented by targets for the proportion of income from fares and public subsidies, operating and capital costs and proportions, and comparisons made with regional population growth rates. The patronage targets need to be linked to car ownership and numbers of trips to aid comparison, so that the proportions of travel by mode levels and levels of activity complete this picture.

The PT targets should be extended to other urban centres such as Dunedin, Tauranga, Hamilton and Queenstown. Also, travel time targets should be complemented by a target percentage of people living within a certain distance of PT services.

There is no discussion of targets for ferry transport, despite their role in Auckland and Wellington, and their contribution to reducing emissions and congestion.

While recognising the problem, there is very little of substance in the way of targets, solutions or commitment to improving accessibility in low density and depressed rural areas such as Northland and Terawhiti.

To improve mode changes, people need to have accessible choices, and this includes both accessibility to infrastructure and services, and affordability. There is little in the UNZTS on the contribution of transport to improve accessibility for the socially disadvantaged in urban as well as rural areas.

- *Are additional targets needed, for example, one around urban design?*

The comments in the document on urban design (pages 12 and 21) are very vague and there is a suggestion that the government is deciding on the desirability of provided guidance on urban design. This would need to be at a more detailed level than the Urban Design Protocol. IPENZ supports the provision of more guidance.

Urban intensification of the main centres can deliver a more sustainable community and optimise community wellbeing once all components of the built environment and social systems are taken into account. This can be superior to other urban development forms such as smaller greenfield compact centres linked by high-speed PT corridors. Therefore, consideration needs to be given to the type of urban design rather than to have an all-encompassing target for urban design.

Urban design issues can be very localised and distinctive to the local environment, which means some form of national urban design target would not be useful. Urban intensification is not desirable, either economically or socially, in a number of circumstances as reduced travel time is only one of the outcomes that communities may desire in a well-designed urban environment.

Regarding additional targets, IPENZ believes that targets are required for long-distance passenger rail patronage and improving bus efficiency and the bus fleet. These are referred to in NZEECS to reduce energy use and emissions, particularly in the tourism sector.

- *Are our targets achievable given the necessary investment and behaviour change needed to reach them?*

There is strong emphasis on public passenger transport, linked to the intensification goal, but there is recognition that only a relatively modest change in the overall mode share of PT can be achieved (from two to three per cent to seven per cent by 2040). Some IPENZ Members believe that this target should be higher given a 30-year time frame, but in the absence of any analysis we are unable to suggest that these levels are achievable.

The contribution of PT to reducing carbon emissions is not stated but is likely to be small compared to the possible gains from changes to the private and commercial vehicle fleets. Thus the role of PT will be more effective in reducing traffic congestion, as a small reduction in morning peak volumes can have a significant impact on travel times.

In view of the very high investment cost for PT, particularly rail-based, there needs to be more justification that this target represents a cost-effective use of capital investment and that the future shape of New Zealand cities is one that is liveable, socially cohesive and what New Zealanders actually want. We note that recent experience of apartment building construction in Auckland is not encouraging.

IPENZ also believes that there has been inadequate consideration of rail corridor use for rapid transit buses. This has been considered for the Johnsonville line in Wellington, but needs to be evaluated for all lines where capacity improvements are being considered, as the capital costs for both the permanent way and rolling stock are considerably less than heavy rail.

- *Are we satisfied with 2007 travel times as the baseline to aim for in the future?*

“Improved relative to 2007” is a meaningless target – what does “improved” mean and by how much? In many cases this may not be practical or affordable. Using 2007 as a baseline is impractical unless the rate of improvement is defined.

- *How will our aim of reducing travel time on all modes (including road) affect our aim of increasing public transport?*

The relationship between travel times on all modes and increasing public transport is modelled within the regional land transport strategies (RLTS) of the major metropolitan areas. These models run various scenarios and sensitivity tests so is not a matter for conjecture in this discussion document.

- *Are our intermediate public transport targets appropriate and achievable?*

National averages are not appropriate targets, nor are averages of Auckland, Wellington and Christchurch. They need to be developed by region and be consistent with the RLTS – and not for a 30-year period. We note the LTNZ project to develop regional targets.

- *Should we develop a target for public transport in rural areas?*

IPENZ believes that, because of the limited services and their variability in these areas, setting targets will not be useful in a national document but may well be appropriate in the regional land transport strategy.

Objective 4 – protecting and promoting public health (p46):

- *Are our high-level targets appropriate – are there other approaches we could take?*

“Public health effects of transport to at accepted international standards” is a weak target and is not adequately defined. Does it include obesity, pollution, accidents and noise? Are comparisons valid internationally in measurement, reporting and context – should we be better or worse? Do these standards exist?

- *Are additional targets needed?*

There are no clear public outcome-focused health targets. This raises the question of whether a “Public Health” objective should exist – see the earlier discussion. IPENZ believes the public interest is served by using transport safety as an objective, rather than attempting to package the issue as public health.

The study on the contribution to premature deaths has been shown to have considerable problems with assumptions and data, and should not be quoted further or used as a basis for public policy initiatives or target setting.

There also should be targets for behaviour change campaigns in urban centres, potentially in partnership with health boards. Targets should also be related to sustainable travel plans including neighbourhood accessibility plans, and school travel plans, such as the percentage of schools in urban areas with a school travel plan by 2040.

Targets could also be developed for noise affecting houses, schools and hospitals on key arterials.

- *Are our targets achievable given the necessary investment and behaviour change needed to reach them?*

There is insufficient information provided on whether the necessary funding will be made available to meet the required investment.

- *Is our intermediate walking and cycling target appropriate and achievable?*

The target of increasing cycling trips by 30 per cent is a national average and is too simplistic. Regional targets are required.

The target to increase walking and cycling trips is complicated by the fact that many streets are unsafe for cyclists and thus there is a relationship to safety targets. Has the 30 per cent increase in cycling trips been factored into the safety targets? For example, data from the Netherlands show that in 2005 the number of hospitalisations for cycles was over 7,000, compared to 4,700 by cars, and the number of fatalities in 2006 was over 200 for bicycles compared to 360 for cars. While the number of cyclists in the Netherlands is much higher than in New Zealand, it does indicate that we need to take into account the likely reductions in safety with increasing cyclists.

In many urban areas there are many streets where cyclists ride on the footpath because the road is too narrow. Unless roads and footpaths are widened in some cities, achieving increased cycle and walking trips will be difficult. In the United Kingdom a new multi-million pound scheme has just been announced by the Department of Transport to

increase the use of cycles by funding dedicated cycleways. The benefits are not only increased safety and reduced car trips, but also better health for those who cycle.

- *How can we best achieve the substantial increase in mode share suggested for walking and cycling?*

The best way to improve cycling in particular is by ensuring there are completed networks, but their development needs to be supported by a formal investment analysis, recognising the relative small mode shifts that can be achieved. However, it is recognised that an economic analysis is only part of the picture – a strategic view of the role of cycling needs to be taken. Another way to promote mode change is to monitor the usage of walkway and cycle ways before and after improvements and to publicise the results.

- *Should we develop initiatives to ensure turnover in our vehicle fleet is higher, to allow improved exhaust emission technology, for example, to be adopted more quickly?*

This should be achieved by setting minimum standards rather than attempting to pick winning technologies. This will drive technological improvements and industry will respond innovatively.

Objective 5 – ensuring environmental sustainability (p52):

- Are our intermediate or detailed targets appropriate – are there other approaches we could take?

The target to reduce greenhouse emissions per capital by half (of the 2010 level) by 2040, in the context of a business as usual (BAU) increase of 40 per cent by 2030, seems to be an unrealistic target. Putting aside population increases (the per capita parameter), in 2040 this could require a reduction to one third of the BAU figure. There is no evidence that such a scale of decrease is achievable and no scenarios have been presented.

The encouragement of biofuels is desirable if they are economically viable (yield a worthwhile net carbon reduction) but should not displace agricultural production for food or encourage deforestation, either in New Zealand or overseas. Major concerns have emerged on this point internationally over the last year and the types and sources of biofuels (particularly imports) will need to be carefully selected and approved against appropriate acceptance criteria. The NZES anticipates a very large contribution from biodiesel beyond the 2012 obligation period (over half of total domestic transport PJ).

The cost of fossil fuels will inevitably rise. However, recent scarcity and cost increases first emerged as a lack of refining capacity, and there is still some risk that the price of crude could fall back to nearer the \$50-\$60/bbl level. At the same time the UNZTS is attempting to reduce carbon emissions. The UNZTS needs to take more account of risk and uncertainty in its targets.

- *Are additional targets needed, for example, one around engine size?*

This should be achieved by setting minimum standards for fuel efficiency or emissions rather than attempting to regulate engine sizes. Taking an outcome approach will drive technological improvements.

- *Are our targets achievable given the necessary investment and behaviour change needed to reach them?*

There is insufficient information on the investment required

- *How can the reduction in single occupancy vehicle travel best be achieved?*

This is best achieved by full road pricing. Many people have reasons for being the sole occupant and it is not desirable to intervene with individual rights in any way other than a pricing mechanism. This can be complemented by behaviour change campaigns, and through the use of parking charges.

- *Should we develop initiatives to ensure turnover in our vehicle fleet is higher, to allow faster adoption of electric vehicles, for example?*

The document says that the government has taken an in principle decision that New Zealand will be one of the first countries to widely deploy electric vehicles. There does not appear to be any evaluation of this decision, for example, against the five objectives of this UNZTS. The decision may not be in the best interests of New Zealand. It is our view that an outcome approach should be taken, not an emphasis on a particular technology.

The achievement of a 50 per cent reduction in domestic greenhouse transport sector emissions would appear to rely substantially on technology conversion within the road vehicle fleet, for which non-carbon electric powered or hydrogen (presumably fuel cell) vehicles are seen as the answer for the light vehicle fleet. The NZES anticipates 60 per cent electric power and 25 per cent hydrogen by 2050. However, there appears to be only very high-level analysis supporting this goal, most of which is for biofuels, and no explanation of how New Zealand is to occupy a first adopter position when it does not have the supporting manufacturing and automotive technology base.

From the NZES, it appears that New Zealand will rely on the gradual introduction of new technology into the fleet as it has done in the past, but there is no indication of how this would be accelerated. There does not appear to be an analysis of or commitment to the capital costs of the infrastructure to support new fleets such as a network of public electric recharging stations, or consideration of the financial incentives such as registration fees and subsidies on capital purchases that may be required.

IPENZ believes that introducing higher registration fees for larger engines and lower registration fees for hybrids would be appropriate. We understand that there is a new United Kingdom policy where a fully electric car pays no annual registration fee.

Making progress towards all NZTS objectives (p53):

- *What pathways allow New Zealand's sustainability objective to be reached while also making good progress against all the NZTS objectives?*

The key elements should be a significant investment in infrastructure combined with demand management through information, education, better provision of passenger transport, promotion of walking and cycling, travel plans and road pricing. Overseas studies indicate that a package of measures is required.

- *Do you agree with the measures and targets suggested in this paper?*

In many cases there is insufficient information on which to base the targets, the targets are poorly designed, and aggregated national targets have little meaning.

An area not touched on in the targets is operational issues, and their costs and priority against capital investment. LTNZ has a range of road network maintenance KPIs (for

example, roughness, pavement integrity index etc). These types of targets need to be incorporated in the UNZTS, and considered for all modes. The key issue is that New Zealand needs to ensure that it maintains and renews its existing assets. The case of the deterioration of the rail network is a timely reminder that there is a public interest in looking after national infrastructure. The UNZTS needs to categorically state that looking after existing assets takes precedence over the creation of new assets.

- *In particular, how do you see transport planning and land use working together?*

Transport planning and land use planning can be better used by incorporating the provisions of the Local Government (Auckland Amendment) Act into the Resource Management Act. However, it needs to be recognised that the benefits of changes in land use on travel patterns are long term. Also, the Resource Management Act is still essentially an effects-based approach and may not be effective enough to control land use for the purposes of transport demand management. Ultimately, full road pricing (including externalities) should be the tool used to influence travel behaviour.

The ability of urban design to reduce emissions has not been referred to, and we have doubts about the ability of district and regional plans to control developments such as lifestyle blocks and major shopping centres, and the emissions that arise from resulting increased transport.

Conclusion

IPENZ would like to thank the Ministry of Transport for the opportunity to comment on this update of the NZTS. We are concerned that this update is not a fundamental review of the 2002 NZTS, and have concerns with the targets, the information they are based on, and their achievability.

IPENZ suggests that the next step of including the actions and developing sub-national targets is also the subject of a further consultation round with the transport industry.