

# Govt<sup>3</sup> Fleet Review Project 2006/07

Summary and Evaluation Report

December 2007

## SUMMARY AND EVALUATION REPORT



## FOREWORD

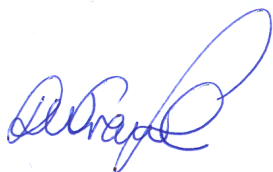
This document summarises findings and recommendations from 22 government vehicle fleet reviews conducted over the 2006/07 financial year<sup>1</sup>. It highlights opportunities for the public sector to demonstrate greater commitment to the Government's growing imperative for environmental sustainability. The call to action has been crystallised by the recent release of the New Zealand Energy Strategy and the New Zealand Energy Efficiency and Conservation Strategy. The latter contains an entire section on government leadership, making it clear that public service departments are to shave 25 percent off their average carbon dioxide (CO<sub>2</sub>) emissions from vehicles by 2012.

These fleet reviews have been effective and had significant media interest. Initial uptake included the Department of Internal Affairs purchasing and trialling three new models listed in its review for its VIP fleet. Similarly, the New Zealand Customs Service, Department of Conservation, Ministry of Justice, Ministry of Social Development, and the New Zealand Defence Force have also embraced the methodology within their fleet review when ordering new vehicles.

The reviews have contributed to new procurement guidelines, published in August 2007, which require departments to consider environmental criteria, including fuel consumption, when purchasing vehicles. These Sustainable Government Procurement Project Category Reviews: Standards, Guidelines, and Targets for Core Public Service Departments<sup>2</sup> seek to increase the profile of sustainability and accelerate adoption of more sustainable procurement practices within departments.

The summary findings show promising outcomes, with \$2.3 million to \$11.3 million of potential savings over three years available across government through improved procurement and management practices. Opportunities to save fuel, due to better control over monitoring and purchases, were also revealed. On the other hand, some fleets, such as those of Child, Youth and Family and the Accident Compensation Corporation, were shown to be already effectively and innovatively managed.

In conducting these reviews the Ministry of Transport has worked closely with staff at the Ministry for the Environment, especially those managing the Govt<sup>3</sup> programme. I would like to thank those staff and all of the employees across the departments and agencies who participated in the reviews for their cooperation and support.



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<sup>1</sup> The fleet size criteria of 50 or more vehicles resulted in 21 eligible agencies. One agency involved, the Department of Internal Affairs, manages two fleets.

<sup>2</sup> Available on the Ministry of Economic Development's website:  
[http://www.med.govt.nz/templates/MultipageDocumentTOC\\_29942.aspx](http://www.med.govt.nz/templates/MultipageDocumentTOC_29942.aspx)

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Front cover: Top right and Bottom left images sourced from Ministry for the Environment New Zealand.

## EXECUTIVE SUMMARY

The Govt<sup>3</sup> fleet review project sought to identify opportunities to improve sustainability, safety and cost-effectiveness in the government fleet. The review analysed the fuel consumption and CO<sub>2</sub> emissions of over 10,000 vehicles in 22 fleets. Individual reports were produced and supplied to each agency involved.

This report summarises overall findings and recommendations from the review project.

The review compared existing vehicles to alternative vehicles capable of fulfilling the same role, while at the same time offering:

- better fuel economy
- Euro 4 or equivalent emissions standards
- an equal or better safety rating
- a 'whole of life' cost within 20 percent of the vehicle's existing cost.

Comparisons resulted in potential savings of between \$2.3 million and \$11.3 million. Up to 31,000 tonnes of CO<sub>2</sub> could be saved by preventing the consumption of 17 million litres of fuel by the total government fleet over three years.

It was found that agencies generally owned their own vehicles and made purchases based on relationships with existing suppliers. Highly ranked purchase criteria were: fitness for purpose, cost, and safety. Little consideration was given to fuel consumption or life-cycle costs. Furthermore, agencies that devolved purchasing decisions to regional managers or individual employees tended to operate less efficient fleets.

Generally, well-managed fleets comprise fewer makes and models. The findings concluded that government should procure vehicles using syndicated tenders when possible. Tenders should specify a minimum number of vehicle types and ask for information on 'whole of life' costs, emissions, safety, fuel economy and the environmental credentials of suppliers.

In-service fleet management practices should focus on better fuel and distance monitoring – possibly by centralising fleet management responsibilities. Managers could also reduce double-charging of vehicle servicing by better informing staff of prepaid service programmes.

The review achieved its overall aims. It has identified opportunities to reduce environmental impacts from the government fleet and raised awareness of sustainable fleet procurement and management. Key performance indicators of fuel consumption and CO<sub>2</sub> emissions are now benchmarked for comparison against possible reviews in the future.

## THE GOVT<sup>3</sup> PROGRAMME

The Govt<sup>3</sup> programme encourages government agencies to demonstrate leadership in sustainability. The ongoing programme, led by the Ministry for the Environment aims to:

- implement the government's sustainable development policies
- use government purchasing power to promote sustainable practice and achieve value for money
- reduce government emissions of greenhouse gases and energy use
- benchmark, monitor, improve, report and celebrate success in the sustainability of government activities.

In June 2006, 47 agencies had formally signed up to the Govt<sup>3</sup> programme. Member agencies agreed to report annually on core indicators, set targets and action plans. In the same year the government agreed that a more focused and sustainable approach should be taken to its own business premises, transport, procurement and carbon neutrality. All agencies are now expected to progress towards carbon neutrality with carbon inventories and emissions reduction plans by 2008. Six core government departments have now been directed to achieve carbon neutral status by 2012<sup>3</sup>.

## THE FLEET REVIEWS

Linking into Govt<sup>3</sup>, the reviews of government's vehicle fleet sought to assess and highlight opportunities for agencies to improve vehicle purchases, especially in regard to fuel consumption and CO<sub>2</sub> emissions. The reviews were delivered by the Ministry of Transport and formed an important transport component of the 2006/07 Govt<sup>3</sup> work programme.

Based on research conducted in 2005, opportunities were identified to improve selection of vehicles with respect to fuel economy and CO<sub>2</sub> emissions. A project was developed by the Ministry of Transport to offer Govt<sup>3</sup> signatories, with fleets of 50 vehicles or more, the opportunity to have their fleets reviewed.

Project aims were to:

- identify opportunities to reduce environmental impacts from the government fleet
- raise awareness of sustainable fleet procurement and management.

Project targets were to:

- achieve buy-in from agencies including senior management
- have sustainability and 'whole of life' costs widely adopted in vehicle procurement processes.

As a result of this project, it is anticipated that a five percent reduction in CO<sub>2</sub> emissions and fuel consumption in government vehicle fleets will be evident by July 2008. A second review remains discretionary to the Ministry of Transport.

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<sup>3</sup>These departments are Ministry for the Environment, Ministry of Health, Ministry of Economic Development, Inland Revenue Department, Department of Conservation and Treasury.

The fleet size criteria of 50 or more vehicles resulted in 21 eligible agencies. One agency, the Department of Internal Affairs, manages two fleets. These agencies are listed below in Table 1.

**Table 1 - Agencies who participated in the reviews**

<b>Agencies Reviewed<sup>4</sup></b>
Accident Compensation Corporation
Child, Youth and Family
Department of Conservation
Department of Corrections
Department of Internal Affairs – Community & Local Government fleets
Department of Internal Affairs – Parliamentary (VIP)
Department of Labour
Education Review Office
Housing New Zealand Corporation
Inland Revenue Department
Ministry of Economic Development
Ministry of Agriculture and Forestry
Ministry of Education
Ministry of Fisheries
Ministry of Justice
Ministry of Social Development
National Library of New Zealand
New Zealand Customs Service
New Zealand Defence Force
New Zealand Police
New Zealand Post Limited
Te Puni Kōkiri

The project's aims, objectives and methodology were explained to all fleet managers, Govt<sup>3</sup> officials and procurement staff involved.

The Ministry of Transport agreed with each agency that their joint sign-off would be required for each report, which would then be supplied to each agency in confidence.

## **METHODOLOGY**

The Ministry of Transport performed the following tasks for each agency reviewed.

1. Calculated the current average fuel economy and CO<sub>2</sub> emissions for passenger cars and light commercial vehicles.
2. Determined current use and requirements of the fleet.
3. Documented fleet management and procurement processes.
4. Identified vehicles that are equally fit for purpose as substitute models for existing models. Substitutes were then sought that offered better fuel economy, lower emissions and an equal or better safety rating within a maximum of 20 percent or less of the existing 'whole of life' cost.
5. Produced a report for each agency detailing procurement, maintenance and management, current practice and offer recommendations for improvements in sustainability.

A tender process resulted in StratCon Partnership Limited being selected to conduct the reviews.

<sup>4</sup> There is no relation between this list and the numbers allocated to fleets listed in charts A-G.

## KEY FINDINGS

Some consistent themes spanned all agencies. These included:

- the majority owned their vehicles and operated a replacement schedule of between three-to-five years, depending on mileage
- selection criteria focussed on vehicles being fit for purpose, followed by cost and safety
- agencies tended to demonstrate traditional and predictable vehicle selection behaviour. They often purchased the same models from the same manufacturers as they had for many years
- some agencies devolved purchase decisions to regions rather than centralising control
- the least efficient vehicles in the fleets related to cars supplied as part of a salary package (when this occurred control over fuel consumption was limited, as employees were free to select any choice of vehicle within bounds of engine size and cost).

Fleet characteristics that differed across agencies included:

- only some included environmental criteria in their selection process
- fleet values ranged between \$2 million to \$122 million
- information kept about their vehicle fleets varied greatly across agencies
- diversity and number of vehicle makes and models within a fleet.

## RECOMMENDATIONS

### PROCUREMENT

- Annually review lease versus purchase options.
- Minimise the number of manufacturers and models in the fleet.
- Utilise the buying power of syndicated procurement.
- Set Euro 4 or higher as a minimum emission standard.
- Set a 4 star minimum NCAP Safety Standard and Electronic Stability Control System (ESC), when feasible.
- Ensure that tenders supply and weigh the criteria of: 'whole of life' cost - incorporating CO<sub>2</sub> emissions, safety and fuel economy.
- Check suppliers' commitment to corporate sustainability.

### MANAGEMENT

- Report monthly on costs including fuel use and distance travelled.
- Ensure all vehicles are serviced in accordance with manufacturer's recommendations using accredited service centres.
- Ensure staff are aware of any prepaid service programmes to avoid duplication of service costs.
- Set targets around reductions in fuel use and CO<sub>2</sub> emissions.
- Implement a programme of driver training to improve safety and fuel economy.
- Ensure that all vehicles supplied as part of a salary package adhere to a policy on CO<sub>2</sub> emissions and fuel economy.
- Avoid inconsistencies in fleet management by centralising responsibility to a national level.

## ACTIONS TAKEN AS A RESULT OF REVIEWS

The strongest endorsement of this review to date is the introduction of new standards and guidelines, released by the Government in August 2007<sup>5</sup>. These require tenderers to submit fuel economy information in their responses, and include fuel economy as a criterion in tender evaluations for all new vehicles to be purchased, leased or hired.

Some of the agencies involved have already used their fleet reviews in the selection of new vehicles. Following receipt of their report, the Department of Internal Affairs purchased and reviewed *Skoda, Peugeot and Chrysler* vehicles for possible inclusion into the Government's VIP fleet. However, the review sought principally to bring about a change in *methodology* in vehicle selection, rather than recommending specific vehicles for fleets. Based on their reviews, the Ministry of Education, the Ministry of Fisheries, and the Department of Conservation are actively reconsidering purchase assessment criteria.

## OVERALL FINDINGS – PROCUREMENT

### FITNESS FOR PURPOSE VARIED ACROSS AGENCIES

Findings show that the use of fleet vehicles across agencies varied widely in accordance with their differing business tasks. Agencies such as the Accident Compensation Corporation, Te Puni Kōkiri and the National Library of New Zealand only needed vehicles that could carry staff and administrative work equipment. In contrast, agencies such as the Department of Conservation, New Zealand Customs Service and the Ministry of Agriculture and Forestry required vehicles with off-road and towing capability. The Department of Corrections required vehicles with extensive retro-fitting to meet their very specific prisoner transfer requirements. More unusual requirements included inconspicuous vehicles for investigations work.

These differing agency requirements meant that numerical comparisons needed to be reviewed with care. Fuel economy, emissions and safety varied widely between agencies. But where agencies are required to perform similar tasks vehicle comparisons can be useful.

The majority of fleets comprised the well-known manufacturers: *Holden, Ford, Toyota, Hyundai, Nissan and Mitsubishi*. The absence of European brands was said to be due to cost, public perceptions and limited national servicing coverage. An exception was the *Fiat Multipla*, of the Child, Youth and Family fleet. The decision to purchase this vehicle was based on the need for comfort, safety and capacity. The handbrake and gear lever are located on the right and side of the driver's seat and on the dashboard respectively, which meant that youth offenders under escort were unable to access them. The vehicle is also reportedly the only one of its type in New Zealand capable of carrying four child seats with two adults. The agency reported that it was a success in terms of functionality and cost. This purchase demonstrated one of the few instances where lateral thinking was encountered.

Petrol was the dominant fuel used. Ninety five percent of passenger vehicles and 50 percent of utilities and vans were petrol, with the balance using diesel. Ten *Toyota Prius* hybrids were recorded, with five of them belonging to the Accident Compensation Corporation.

Engine size tended to be larger than necessary. In organisations that only required small road-going passenger vehicles their vehicles still tended to have at least two litre engines. Vehicles supplied as part of a salary package had, without exception, the largest engines and generally the highest fuel consumption.

### REPLACEMENT POLICY

Most agencies had procurement policies, though some policies allowed for liberal interpretation. Replacement policies varied between 60,000 and 120,000 kilometres and three to five years. In practice, it was found that most agencies keep low mileage vehicles beyond the time defined in their policy. The majority of the 10,000 vehicles were less than three years old but some agencies, such as the Department of Conservation and the Department of Corrections, tended to have vehicles with low annual mileages. Therefore there were, in some cases, good reasons for agencies to keep replacement policies flexible.

Where some vehicles performed a niche low mileage requirement, there was often a strong business case for their retention. The six year old *Daimler* in the Department of Internal Affairs' VIP fleet was one example. However, this type of behaviour tends to defer the uptake of new beneficial technologies. New technologies offer significant improvements in safety, fuel economy and emissions.

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<sup>5</sup> Sustainable Government Procurement Project Category Reviews: Standards, Guidelines, and Targets for Core Public Service Departments, August 2007.



## **PROCUREMENT PROCESSES**

At present, agencies purchase vehicles through an existing agreement with a vehicle supplier or by going to tender. Some agencies will choose to run the tender process themselves and some to use the services of a broker. In either case, the tender is advertised via the Government Electronic Tendering Service (GETS).

Vehicle selection is usually done through an advisory team. The process involves consultation with staff, during which a range of vehicles is short-listed for final decision, based on the preferences of the advisory team.

Centralising this procurement process is recommended. Where decision-making is devolved to regions, it usually results in incremental purchase of a wide range of manufacturers and models. One fleet had a total of ten manufacturers and 36 models for a fleet of 201 vehicles, while another fleet of nine manufacturers and 18 models applied to only 50 vehicles. In contrast, the Child Youth and Family fleet of over 600 vehicles comprised only four manufacturers and ten models.

## **SYNDICATION**

Despite the obvious benefits offered by a syndicated procurement arrangement, few agencies actively took part in the process. Syndication is rare and tends to happen because of a proactive fleet manager or from a promotion by a brokerage company.

There are several reasons for a lack of syndication. Some agencies still believe that they need specific vehicles that won't fit the needs of other agencies, and that they would have to compromise their choices. Agencies believed that they had no way of knowing when other agencies were going to tender and often only learned about other tenders once they were already being advertised. There appears to be no alignment of replacement schedules to facilitate syndication.

## **SELECTION CRITERIA**

All agencies utilised selection criteria of cost, fitness for purpose and safety. Some included other criteria including: emissions, driver comfort, transmission, power, driver preference, fuel economy and CO<sub>2</sub> emissions. Few agencies asked suppliers for their corporate sustainability credentials.

Fuel economy and CO<sub>2</sub> emissions are attributes that are now being considered by most government agencies. However a few agencies still believe that purchasing vehicles with relatively poor fuel economy and high CO<sub>2</sub> emissions is justified, even while other more suitable vehicles with better environmental credentials are available.

Reasons cited for discounting fuel economy and CO<sub>2</sub> emissions performance include an absence of:

- awareness of the current political will for more sustainability within procurement
- understanding of the benefits both environmental and financial
- inclination to depart from the existing vehicle choices and/or break with existing supplier relationships
- knowledge relating to the alternative choices in the market.

The environmental credentials of suppliers are becoming increasingly important. Some organisations are starting to exercise supply chain management by requesting a supplier's policies in relation to environmental, economic and social issues and impacts that relate to its organisation.

## OVERALL FINDINGS - FLEET MANAGEMENT

### GENERAL

Day-to-day management of fleets is satisfactory, but opportunities exist to improve longer-term decision making. The agencies fell into three categories.

1. Those who planned year-to-year (majority).
2. Those who were preparing long-term plans (some).
3. Those who had implemented long-term plans (minority).

Monitoring of fuel economy and costs was found to be erratic. Most agencies cited budget constraints as their reason for not having long-term plans. Without adopting long-term plans agencies will likely struggle to accommodate fleet requirements on a year-by-year basis.

Some agencies outsource their fleet management. But the reviews identified some significant variations in performance of outsourced operations. In one particular case, no discernable benefit was achieved at all. In some cases contractors provided monitoring services, tracking emissions and fuel economy (for example for the New Zealand Customs Service and the Department of Conservation). Inadequate fleet management was epitomised by the agencies that were unable to provide data for detailed analysis.

### FUEL AND DISTANCE MONITORING

All agencies purchased fuel with fuel cards. Recording and monitoring of the fuel data varied from good, in the case of the National Library of New Zealand, to a minority of organisations who monitored by exception. Some agencies also monitored mileage, but it tended to be left to drivers and was frequently overlooked. While some agencies restricted use of fuel cards to only purchasing business-related fuel, others allowed drivers to purchase fuel for driving outside of the direct work environment, such as commuting. Unrestricted use of fuel cards makes assessment of business fuel consumption and emissions information difficult.

Poor distance and fuel recording was common. Only four of the 21 agencies had effectively recorded odometers at point of purchase. These four were the New Zealand Police, the New Zealand Defence Force, the National Library of New Zealand and Housing New Zealand Corporation.

### SERVICING

Without exception all agencies serviced their vehicles at recommended intervals. Agencies with leased vehicles usually had pre-paid service programmes. Where vehicles were purchased, some agencies took the option of also buying pre-paid service programmes, nominally for 75,000 kilometres. However, double-charging for servicing was common, and occurred when drivers were not aware of the service pack already purchased. Many agencies acknowledged that this had happened to them in the past.

## COMPARATIVE ANALYSIS OF FLEETS

### METHODOLOGY

The purpose of the comparative analysis was to assess the effects of more fuel efficient vehicle choices in fleets. The process was to analyse the replacement of the existing models with the nearest models that met all the criteria stipulated by the client agency<sup>6</sup>. Replacements were found with better fuel economy, lower CO<sub>2</sub> emissions, equal or better safety ratings and equal or better emission standards. They were also within 20 percent of the 'whole of life' cost of the original vehicles. These alternative vehicles were then suggested to the agency as part of the reporting process. Table 2 summarises the attributes and information sources.

**Table 2 – Attributes used for comparative analysis**

Attribute	Definition
CO <sub>2</sub>	Volume output from the vehicle's engine <a href="http://www.greenvehicleguide.gov.au">www.greenvehicleguide.gov.au</a> , <a href="http://www.vcacarfueldata.org.uk">www.vcacarfueldata.org.uk</a> ,
Fuel economy	Based on manufacturer stated litres per 100 kilometres combined rating <a href="http://www.fuelsaver.govt.nz">www.fuelsaver.govt.nz</a> , <a href="http://www.greenvehicleguide.gov.au">www.greenvehicleguide.gov.au</a>
Safety rating	Based on New Car Accident Protection testing, both Australian ANCAP and European ENCAP <a href="http://www.landtransport.govt.nz">www.landtransport.govt.nz</a> , <a href="http://www.euroncap.com">www.euroncap.com</a> <a href="http://www.ltsa.govt.nz/vehicles/ancap">www.ltsa.govt.nz/vehicles/ancap</a>
Emission standard	European fuel emission standard 4 is used <a href="http://www.Road-Tests.com">www.Road-Tests.com</a> <a href="http://www.greenvehicleguide.gov.au">www.greenvehicleguide.gov.au</a>
Fuel cost	Per 100,000 kilometres for fuel only with road user charges included if applicable. 'Fuel' refers to a proportion of 95 percent petrol and five percent diesel.
'Whole of life' cost	Supplied by GSB Supply Corp Ltd <sup>7</sup>

### 'WHOLE OF LIFE' COST

For the purposes of simplicity and continuity between reports, the 'whole of life' cost figures were based upon a single unit being purchased at a recognised government sector discounted rate. Fuel costs are based upon a standard discounted rate. Savings are based upon an industry average distance of 100,000 kilometres and a three year replacement schedule.

'Whole of life' costs comprise the costs passed onto the owner during the time they use the vehicle, as opposed to purchase price only. 'Whole of life' costs account for models with lower purchase prices but higher costs to run, and possibly a lower residual value than a comparable vehicle with a higher purchase price.

In summary, 'whole of life' costs are a combination of the following elements:

- government purchase price (rather than a negotiated brokerage price)
- maintenance cost over three years or 100,000 kilometres (excluding on-road costs)
- tyres over three years or 100,000 kilometres
- retail fuel cost over three years or 100,000 kilometres
- residual price over three years or 100,000 kilometres.

The 'whole of life' costs quoted are indicative figures that will change over the three year life depending on market variations in fuel price, residual value, purchase price, volume of units purchased and so on. The 'whole of life' costs should be treated as a guide price, correct at the time of the reviews.

<sup>6</sup> The comparative analysis applied to the most common four to six models in each fleet. This accounted for approximately 6,000 vehicles or 60 percent of the total fleet.

<sup>7</sup> Individual agencies may find other sources more appropriate to their needs.

## COMPARATIVE RESULTS

Two sets of results were produced. The first show the average costs and benefits for three alternative vehicle purchase choices. The second show the optimum of the three alternative vehicle purchase choices. Results for approximately 60 percent of the entire government fleet are summarised in Table 3.

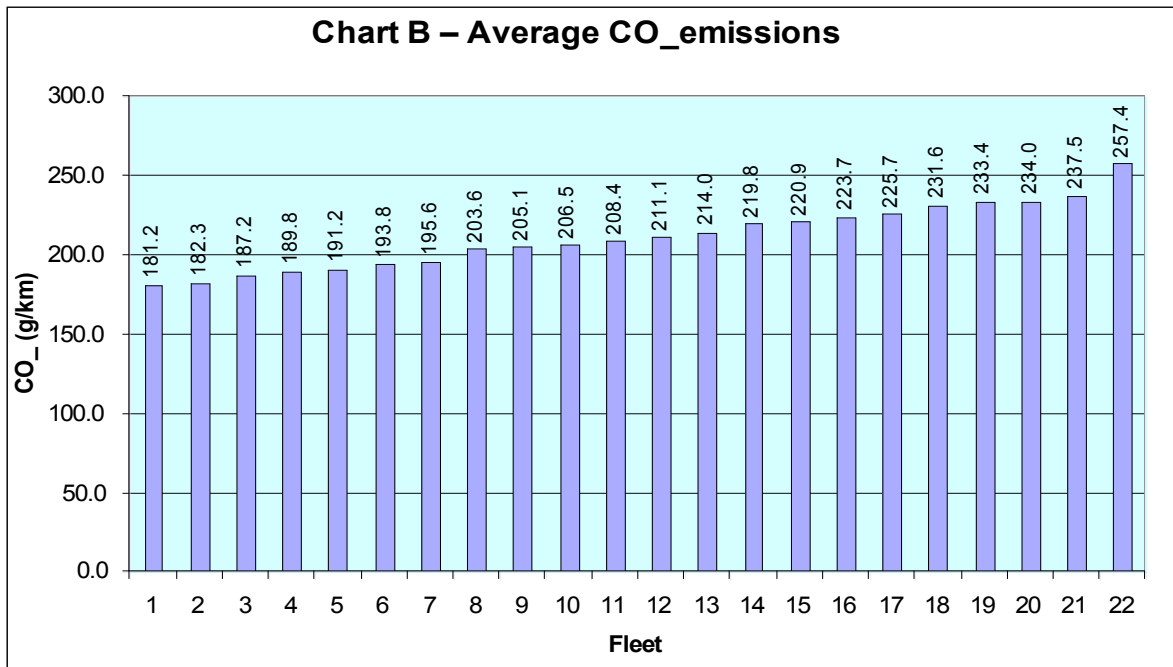
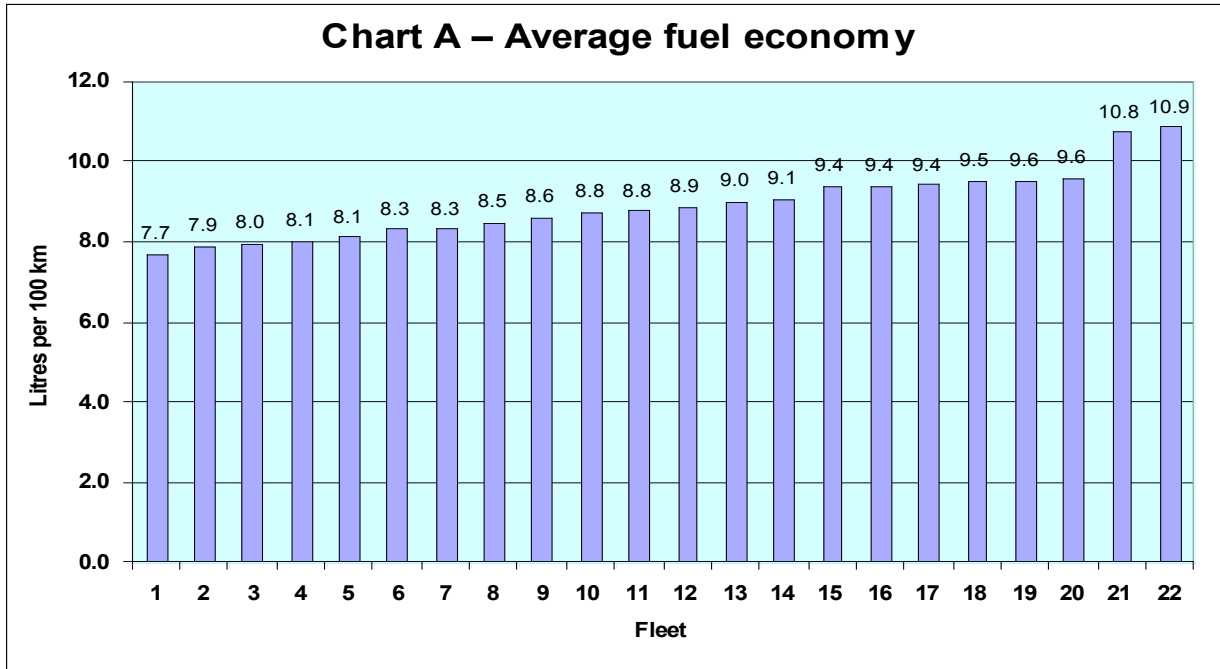
With the exception of one agency, the optimal selection resulted in cost savings for all agencies.

**Table 3 – Savings available from comparative analysis**

	<b>Total identified savings (60% of total fleet)</b>			
<b>Aspect</b>	<b>Average of Options</b>	<b>Percent Improvement</b>	<b>Optimal Options</b>	<b>Percent Improvement</b>
<b>CO<sub>2</sub> (tonnes)</b>	27,202	25	30,817	28
<b>Fuel (litres)</b>	15,394,953	30	16,956,485	33
<b>Cost (\$)</b>	2,282,144	3	11,292,403	9

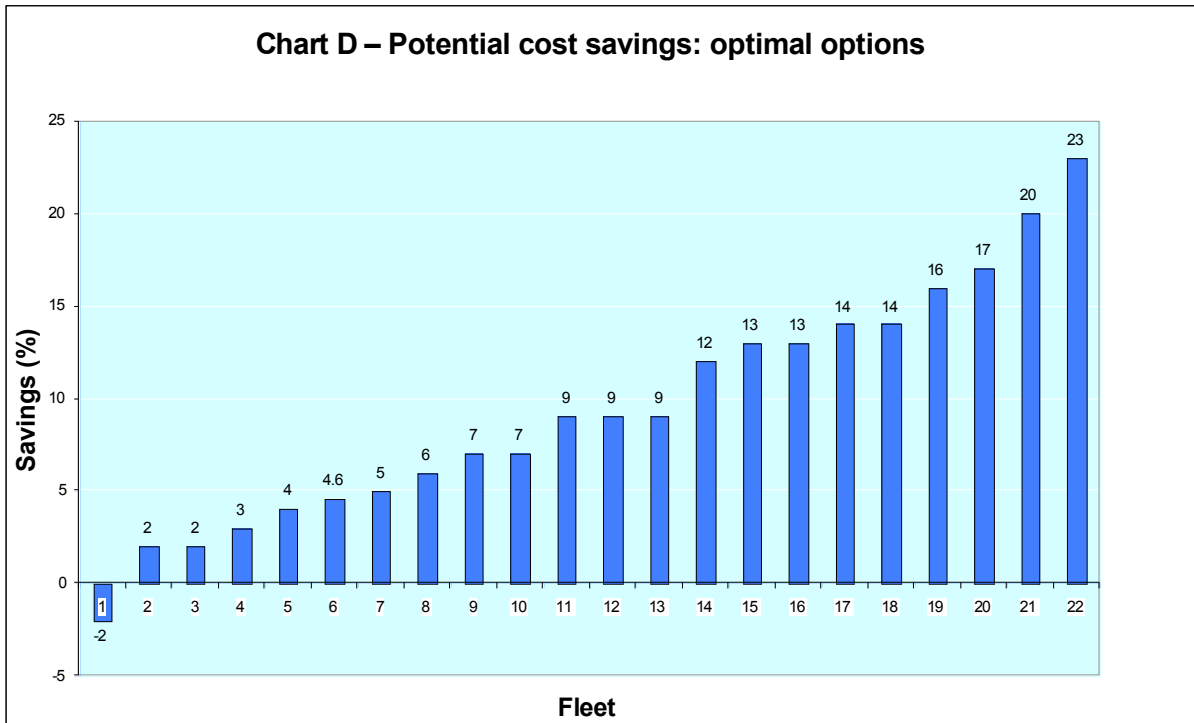
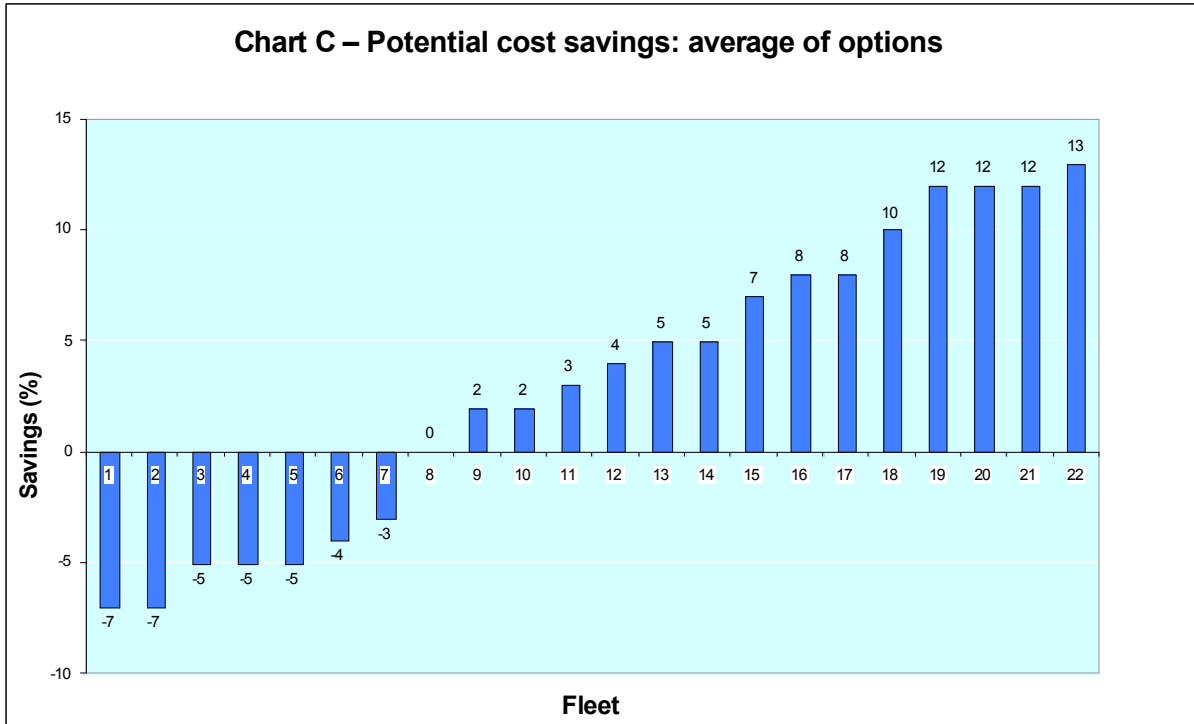
**BASELINE – AVERAGE FUEL CONSUMPTION AND CO<sub>2</sub> EMISSIONS**

To assess the progress of each fleet the average fuel economy and CO<sub>2</sub> emissions were measured, illustrated in Charts A and B. Combined, the fleets had an average fuel economy of 8.9 litres per 100 kilometres and average CO<sub>2</sub> emissions of 212 grams per kilometre.



**POTENTIAL SAVINGS – ‘WHOLE OF LIFE’**

Chart C shows average savings across the three replacement options selected. Chart D shows potential savings made by comparing the optimal of the three options.



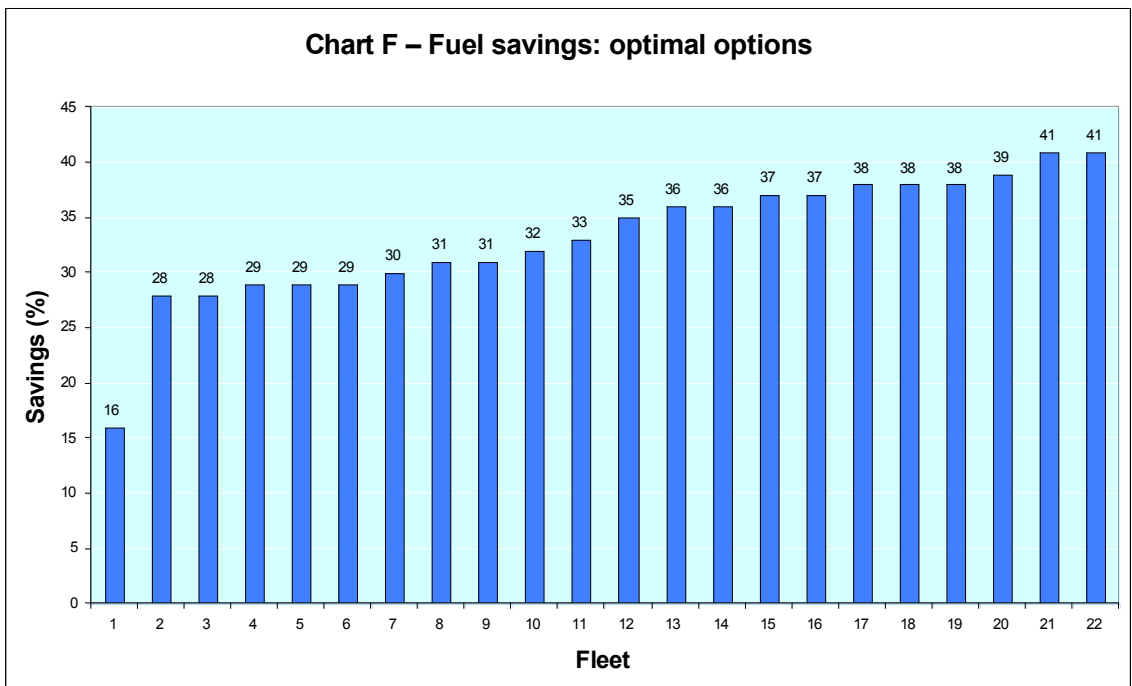
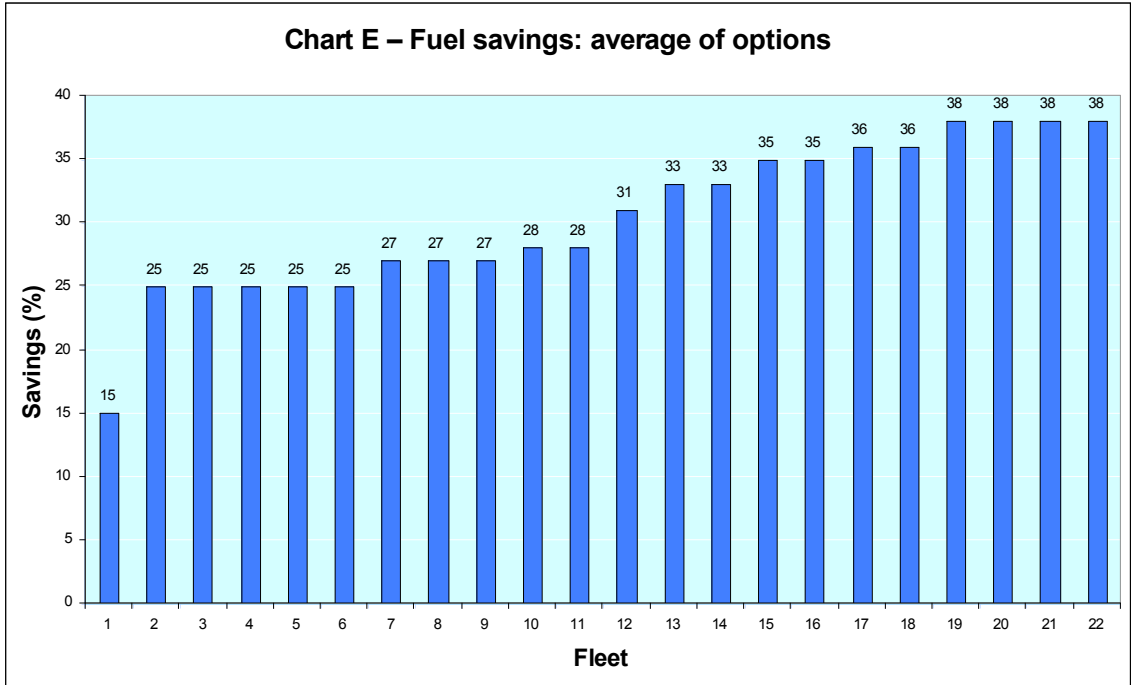
While potential savings from the average of options listed were variable and sometimes negative, savings from optimal options reached 23 percent to almost \$1 million. The Te Puni Kōkiri fleet showed a negative optimal saving, indicating that it had already optimised its ‘whole of life’ costs. Optimal options for fleets averaged at nine percent cost savings. Combined savings across all fleets ranged from \$2.3 million to \$11.3 million for optimum and optimal options respectively.

For the most part, savings were derived from efficiency improvements resulting from a move from petrol to diesel engines. Costs for petrol and diesel are comparable when incorporating road user charges; however the better fuel efficiency of diesel engines translates into better fuel economy for vehicles of comparable size, and therefore greater fuel cost savings. Further savings are achieved through lower costs due to longer service intervals for diesel engines.

Residual prices for diesel vehicles are similar to petrol cars. This is largely due to New Zealand's traditional pattern of purchasing petrol vehicles. In Europe, where diesels comprise two-thirds of new fleet sales, greater demand is reflected in higher residual values for diesel vehicles than petrol.

**POTENTIAL SAVINGS – FUEL CONSUMPTION**

Fuel use and the corresponding CO<sub>2</sub> emissions typically form about 85 percent of a vehicle’s total lifecycle CO<sub>2</sub> emissions<sup>8</sup>. Charts E and F show the potential reductions in fuel use that can be achieved by the selection of more fuel efficient models.



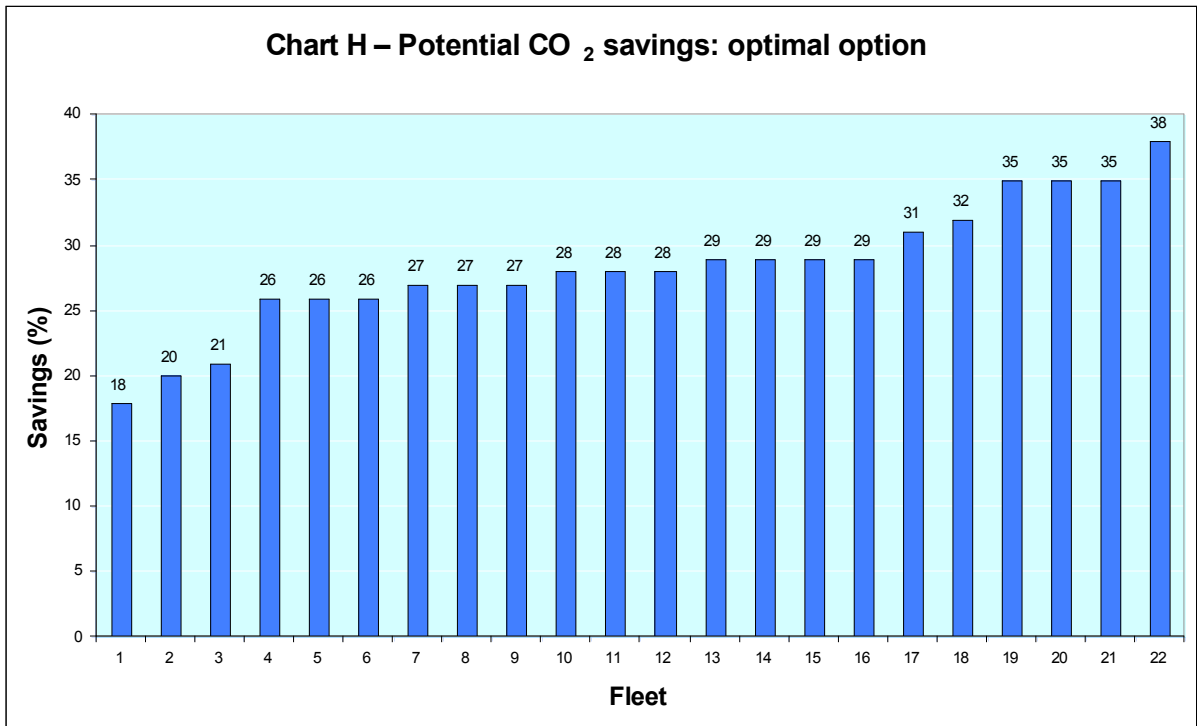
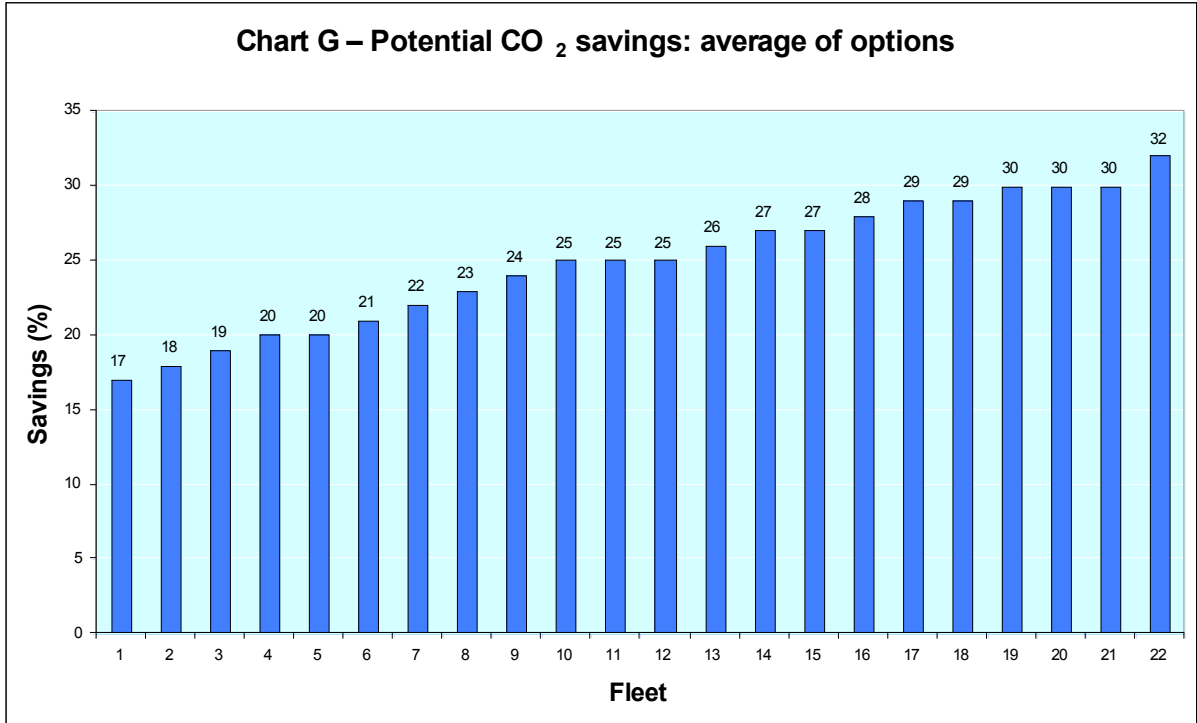
Potential fuel savings ranged from 0.1 to 1.6 million litres per fleet. Optimal options comprised average fuel savings of 33 percent across all agencies. The total savings identified, when comparing the average of the options listed, amounted to 15 million litres; savings from comparison with an optimal model totalled 17 million litres.

<sup>8</sup> UK Government, “The King Review of low-carbon cars”, October 2007 (at [www.hm-treasury.gov.uk/king](http://www.hm-treasury.gov.uk/king)).



**POTENTIAL SAVINGS – CO<sub>2</sub> EMISSIONS**

Savings range from 235 to 3000 tonnes of CO<sub>2</sub> per fleet. Total average savings for all fleets amounted to 27,202 tonnes of CO<sub>2</sub>. Savings from the optimal scenarios totalled 31,000 tonnes of CO<sub>2</sub> with an average improvement of 29 percent per fleet.



## AGENCY FEEDBACK

All agencies said that they found the comparative exercise useful in highlighting savings for models which were equally fit for purpose. Three agencies queried the 'whole of life' cost information. One stated that they disagreed with the calculations and wished this to be stated in their report. This was acknowledged and their concerns were placed in the preface of their report.

Other feedback included concern that the savings identified were unachievable, as results of calculations were based upon a 100,000 kilometres and three year basis, which were considerably less than their own average vehicle mileage. This was addressed by making assumptions clear, while acknowledging the varying requirements that different agencies have for fleets.

Fuel and CO<sub>2</sub> savings can be directly scaled down from the original 100,000 kilometres and three year figures. The approach should be used with caution on the 'whole of life' figures due to the financial components not being constant throughout the life. For example costs vary depending on the vehicle service, and depreciation curves are not necessarily linear, rather they are usually plunging curves.

## CONCLUSION

Traditional procurement and management behaviours need to change. Monitoring and reporting is critical for agencies as they progress towards reduced emissions and carbon neutrality.

Current vehicle purchasing practices, based on relationships with suppliers, up-front cost, safety, and fitness for purpose, are not sufficient under the sustainability demands of the Government. Agencies need to assess life-cycle costs and the sustainability credentials of suppliers. Monitoring of fuel use and distance are also critical. Monitoring will be less problematic for fleets that are centrally controlled, with fewer options for employee vehicle choice and non work-related fuel use. At a higher level, coordinated processes for vehicle procurement in government would provide more opportunities for agencies to syndicate their purchases.

The Govt<sup>3</sup> Fleet Reviews have achieved their aims to identify opportunities in the fleet to reduce environmental impacts and raise awareness of sustainability. The Sustainable Government Procurement Project Category Reviews: Standards, Guidelines, and Targets for Core Public Service Departments, now require that departments consider fuel economy during vehicle purchases. A trial of vehicles highlighted for the Department of Internal Affairs received high coverage in Parliament<sup>9</sup> and the media.

Feedback from the agencies involved in these reviews has been generally positive. Each review was done in close liaison with fleet managers, with all assumptions, benefits and opportunities clearly reported. All agencies now better recognise the value in minimising fuel consumption and CO<sub>2</sub> emissions.

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<sup>9</sup> Parliamentary Debates (HANSARD), Thursday, 31 August 2006 (Week 24, Volume 633).