

SAFER VEHICLE FLEET – THE SUCCESS OF A FOCUSED NEW VEHICLE PURCHASING POLICY

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INTRODUCTION

International research has demonstrated that safer vehicles reduce the likelihood of a crash, and of death or serious injury in the event of a crash. Innovations such as electronic stability control (ESC) and side curtain air bags are proving valuable in reducing road trauma.

The level of road crash trauma and the horrific cost to the community of crashes can be lowered significantly, provided:

- the community buys increasingly safer vehicles,
- there is continual turnover of the fleet to bring safer vehicles onto the roads, and
- vehicle safety systems are properly maintained.

The European Transport Safety Council estimates that if overnight, every motorist moved into the safest vehicle in the same class as their current vehicle that road trauma could be reduced by up to 50 per cent.

As the Department for Transport, Energy and Infrastructure (DTEI) is responsible for road safety in South Australia, it should be leading by example in establishing best practice road safety policy.

In 2008 the department identified that a formal safer vehicle purchasing policy and procedure was required for the leasing of DTEI fleet vehicles. The cornerstone of this policy was to mandate ESC technology.

A formal safer vehicle purchasing policy and procedure mandating a number of key vehicle safety features and desirable criteria for both active and passive vehicle safety features was endorsed. The introduction of this policy ensured a more rigorous, safety-focused approach to light vehicle leasing across the department, improving the safety of work-related driving.

In January 2010 further updates to this policy were endorsed to allow for continued improvement in the area of safe vehicle purchasing within DTEI.

METHOD

Data and risk assessments undertaken within DTEI during 2007 highlighted a low percentage of leased DTEI light vehicles were fitted with potential life saving technology, particularly in the commercial vehicle segments.

The safer vehicle purchasing policy hinges on a number of mandatory and desirable safety features fitted to all new light vehicles. Each safety feature originally included within the policy provided a proven benefit to reductions in road trauma through crash data, analysis and research.

The DTEI light vehicle fleet remains at over 650 vehicles with an annual turn over 220 vehicles per year. Therefore, fleet purchasing actions which include safety as a priority can result in immediate and ongoing road safety benefits to the community.

On 1 April 2008, a new policy and procedure was introduced to increase the level of vehicle safety for each new vehicle introduced to the fleet. The policy listed features considered as being 'Mandatory' or 'Desirable'.

Vehicles which do not have the listed mandatory features can not be leased for use by DTEI staff (exceptions may be granted based on unique operational requirements). Features listed as 'Desirable' are other high-level safety features that should be selected wherever possible. As some vehicle manufacturers choose to offer safety features as options, rather than as standard equipment, safety features not offered as standard equipment should be selected as options (or retrofitted, where applicable).

Vehicle safety features are either passive or active. Passive features protect the occupant in the event of a crash, and active features assist a driver to avoid a crash occurring such as ESC technology.

Mandatory Features

In April 2008 the following features were compulsory for all new light vehicles leased by DTEI:

Active safety

- Electronic stability control
- Anti-locking braking system
- Daytime running lights (hardwired to switch on headlights when ignition activated)

Passive safety

- A minimum four-star rating in the Australian New Car Assessment Program.
- Driver and front passenger airbags
- Cargo barriers for station wagons and hatchbacks

Desirable Features

Wherever possible, vehicles with the following safety features should be given priority in the selection process:

Active safety

- Traction control.
- Speed alert system.
- Lighter colour vehicles (providing better visibility for other road users).

Passive safety

- Front side airbags (thorax).
- Curtain airbags (front & rear).
- High pedestrian safety rating on ANCAP.
- Three-point seat belts in all positions.

- Seat belt reminder system.
- Head rests for all positions with front seats fully adjustable.

To further remove the often emotional attachment of vehicle selection, DTEI designed and implemented an electronic vehicle selection database. The quantitative and qualitative information received from staff through each new vehicle assessment was entered into a database which then provided a selection of vehicles in order of suitability and the highest level of safety.

An internal marketing and communication program was constructed to promote the policy to all light vehicle operators within DTEI. The aim of the program was to inform fleet operators and key decision makers about the benefits of safer vehicles for DTEI and the broader strategic approach to improving the safety of the entire public fleet.

The Light Vehicle marketplace is dynamic, with the continuous introduction of new vehicles, models and features. It is important to keep the departmental purchasing policy in line with these changes and to ensure DTEI continues to lead industry in the purchasing of vehicles with a minimum level of safety features above the standard inclusions. In January 2010 further updates to this policy were endorsed, the amendments made to the safer vehicle purchasing policy were;

Mandatory Features

Active safety

- Traction control.

Passive safety

- Non fitment of hands free phone kits – All DTEI employees are to pull over and park safely to use a mobile phone.
- A minimum five-star rating in the Australian New Car Assessment Program for passenger vehicles.
- A minimum four-star rating in the Australian New Car Assessment Program for commercial vehicles.
- Front side airbags for passenger vehicles.
- Curtain airbags for passenger vehicles.
- Head rests for all positions with front seats fully adjustable.

Desirable Features

Active safety

- Emergency Brake Assist.
- Reversing camera for vehicles with poor rear visibility.

Passive safety

- A five-star rating in the Australian New Car Assessment Program for commercial vehicles.

RESULTS AND DISCUSSION

Assessments conducted two years after the introduction of the policy showed 91% of all new vehicles across the department met the mandated safety feature requirements with 77% meeting the high-level desirable safety criteria.

The period from introduction in April 2008 displayed immediate road safety benefits for DTEI employees and long term benefits for the community. The departmental crash data displayed;

- No loss of control crashes occurring with any new vehicle purchased meeting the policy, proving the success of the ESC mandate in particular.
- Overall crash reductions of up to 20% have been recorded.
 - During year one (April 2008 – March 2009) 11% of the total crashes for this period were attributed to new vehicles, compared to a 30% rate for all new vehicles during the previous year (19% reduction)
 - During year two (April 2009 – March 2010) 10% of the total crashes for this period were attributed to new vehicles, compared to the 30% rate for all new vehicles during the base year (20% reduction)
- Reductions in employee compensation claims due to a vehicle crash injury were also achieved.
 - During year one, 0 compensation claims were made, compared to 6 during the previous year (100% reduction)
 - During year two, 2 compensation claims were made, compared to 6 during the base year (30% reduction)

In both instances above the claim was due to third party vehicles where the DTEI driver was not at fault.

The financial impact of this safer vehicle purchasing policy displayed an average increase purchase price of \$230 per vehicle. In February 2008 this was predicted to be over \$900 per vehicle. However, due to the market pressure on vehicle manufacturers and sound fleet management strategies within DTEI, many safety features became available at no or lower additional cost, providing a saving on the expected expenditure.

CONCLUSIONS

The benefits safer vehicles can make to the reduction and severity of crashes has been demonstrated within DTEI by the success of the safer vehicle leasing policy implemented in April 2008. The ongoing amendments will continue to be measured to ensure DTEI continues to lead industry in the purchasing of vehicles with minimum level of safety features above the standard inclusions.

The success of this policy, considering the large amount of commercial vehicles within DTEI, has prompted discussion to introduce a similar policy for all SA Government fleet vehicles.

Promotion of this success is continuing, with formal presentations and information being offered to all public and private fleet providers within South Australia.

This extended abstract has NOT been peer reviewed.