

Eastern Health Case Study

April 2013



1 Introduction

Eastern Health participated in a 12-month pilot of the Victorian FleetWise program.

The purpose of the pilot was twofold: to assist participating organisations improve the energy efficiency of their fleets, and to evaluate the usefulness of the FleetWise program.

2 About the organisation

Eastern Health is a metropolitan public health organisation providing emergency, medical and general health care to eastern Melbourne.

It employs more than 8300 people in seven hospitals, four residential care facilities, a number of mental health facilities, two state-wide health services and a number of community-based facilities.

3 Nature of the fleet

At 31 March 2012, Eastern Health's fleet included 277 vehicles. These vehicles were estimated to produce approximately 740 tonnes of GHG emissions (CO₂-e) at an average intensity of 236 grams of CO₂-e per kilometre travelled.

The average annual kilometres of the fleet are relatively low, so fleet improvements that involve a cost premium (e.g. hybrids) need to be evaluated to determine whether they can provide a return on investment.

Prior to enrolling in the FleetWise initiative, Eastern Health had established an internal business case for attaching GPS units to vehicles to undertake a fleet utilisation review.

As a public health organisation the choice of fleet vehicles for Eastern Health is limited to those on the Victorian Government's approved vehicle list.

4 Fleet improvement actions

Eastern Health implemented the following fleet strategies over the April 2012 – March 2013 period:

- a fleet utilisation review (supported by GPS data location data monitoring) in order to remove unnecessary vehicles and to ensure that those included in the fleet were fit for purpose
- an online vehicle booking system that included 'service due' notifications
- phasing out of older vehicles within the fleet
- in collaboration with the Sustainability Manager the Fleet Manager developed a power to weight ratio spreadsheet to be used for vehicle procurement decisions which allowed comparison of like for like vehicles against a range of criteria including power to weight ratio, air pollution, and fuel economy.*

**Air pollution and fuel economy were compared based on the relevant scores in the Green Vehicle Guide.*

Some initiatives earmarked for implementation next year are driver education, monitoring tyre pressure, continued replacement of older vehicles, replacement of all 6-cylinder wagons with 4-cylinder vehicles and the procurement of vehicles using small capacity turbocharged petrol engines.

Following the Victorian Government's decision to promote Australian made vehicles within the State fleet when appropriate, Eastern Health will also be following this policy where Australian vehicles are fit for purpose and meet the environmental requirements.

5 Results

A follow-up assessment of the emissions performance of the Eastern Health fleet was undertaken in April 2013. The fleet utilisation review had removed 18 vehicles from the fleet. However, due to the nature of the organisation the total kilometres travelled had increased by 5%. This growth was due to the ambulatory program expanding, and the shuttle bus that was in operation for staff while one of the hospitals was being renovated.

The assessment revealed a slight increase (3.5%) in the total GHG emissions of the fleet, but an **improvement in GHG emissions intensity of 1.7%** to 232.4 grams of CO₂-e per kilometre travelled. The overall increase could be attributable to the increase in kilometres, offset by the improvement in the efficiency of the fleet by the strategies implemented.

There was a significant improvement in the efficiency of light commercial vehicles in the fleet, but since no new vehicles were purchased in this segment of the fleet, this improvement has been attributed to the removal of the older vehicles.

The assessment also revealed an improvement in the average air quality score of 0.09.

6 Summary and learnings

Eastern Health has started the program by right-sizing their fleet, putting in place the online booking system, and amending their procurement policy. These internal measures have established good processes for the future, and it is expected that the energy efficiency of the fleet will improve further next year.

The experience of Eastern Health in the FleetWise program gave rise to the following observations which are relevant for all program participants:

- Optimising fleet size (number and type of vehicle) is economically beneficial as it can reduce the number of vehicles purchased and associated maintenance, and it enables better use of the remaining fleet.
- Growing businesses may give rise to increased kilometres, which will increase total emissions. Monitoring emissions intensity can provide a more accurate measure of how well efficiency improvement measures are working.
- There can be a trade-off between air quality and GHG emissions. For example, diesel vehicles may have a better GHG emissions intensity than a petrol vehicle, but may be worse in terms of air quality. For this reason it is very important to have clear objectives and priorities guiding the fleet strategy.
- As would be the case with most organisations, financing fleet improvements is a challenge. The vehicle scoring spreadsheet is an example of a low-cost initiative that can be effective in improving the fleet.
- Eastern Health was fortunate in that their internal database was already set up to provide the fleet manager with easy access to all the information required to monitor the performance of their fleet for the FleetWise program. Reliable data is crucial to measuring current practice and for tracking any improvements. Establishing these systems might be the first step toward better fleet performance.

'The key is access to good baseline data'.

Paul Hammond, Vehicle Fleet Manager, Eastern Health