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Route Optimisation Pilot Study

Project Name Route Optimisation Pilot Study – Urban Transport Energy Reduction

Client Name Energy Efficiency and Conservation Authority (EECA)

Date May 2007

Description

GHD was engaged to report on the results of a pilot study applying route optimisation techniques to improve coordination of traffic signals in Auckland and to demonstrate the viability and effectiveness of a route optimisation programme in reducing urban traffic congestion, energy consumption, and CO₂ emissions within the Auckland region.

Client Benefits

The calculated benefits to road users of the pilot study were:

- » Fuel savings of 214,660 litres in the first year (10%)
- » CO₂ reduction of 547 tonnes in the first year (10%)
- » Average time savings of 17 seconds per vehicle per trip along the route

- » Total time savings to road users of 63,453 hours in the first year (13.5 %)
- » Financial benefits of \$1,161,598 in the first year
- » A benefit cost ratio of 17.0 in the first year alone

Recommendations

Based on the findings of the study it was recommended that appropriate ongoing funding for route optimisation in Auckland be identified and provided to reduce traffic congestion and energy use in the transport sector.

In order to take advantage of the potential benefits, funding for route optimisation should be at a level similar to Australian cities to enable the Auckland Traffic Management Unit to undertake route optimisation on 30% of identified routes per year.

For more information, please contact:

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