



KEMPSEY
Shire Council

DIRECTOR CORPORATE SERVICES REPORT

13th September 2005

DCS4 DIESEL V FUEL
FILE: P6-2 MPM

SUMMARY:

Reporting on a proposal to change Councils current practice of purchasing 6 cylinder passenger vehicles to that of a more fuel efficient and environmentally cleaner 4 cylinder diesel sedan.



Kempsey Shire Council currently operates a total sedan fleet of 42 vehicles with 33 of these vehicles being six cylinder and 9 being four cylinder. Of the four cylinder vehicles there are 5 All-Wheel Drive vehicles (AWD), closely matching that of the six cylinder vehicles on fuel economy.

Table (A) below sets out the current average fuel consumption for Council's sedan fleet.

Table A

Vehicle Type	Fuel Consumption – lts/100 kms	Clean Car Benchmark
Holden Commodore - 6 cyl ULP	11.1	9.5/20
Ford Falcon – 6 cyl ULP	11.5	9.5/20
Mitsubishi Outlander - 4 cyl ULP	10.2	10.5/20
Mitsubishi Challenger - 6 cyl ULP	13.4	8.5/20
Nissan X-trail – 4 cyl ULP	9.4	10.5/20
Ford Territory - 2WD 6 cyl ULP	13.1	8.5/20
Ford Territory	13.5	8.5/20

AWD 6 cyl ULP		
Toyota Prado – 4cyl diesel	12.6	4.5/20
By comparison -		
VW Golf – 4 cyl diesel	5.5	14/20

It is fair to say that a move to purchase 4 cylinder diesels in preference to the current classes of 6 and 4 cylinder vehicles will not be suitable to all Council staff for a variety of reasons, these will include the need for specialist vehicles (AWD) for off road conditions as well as the requirement of some staff members with more than two children, for larger type vehicles.

In the current climate of ever increasing fuel costs and environmental concerns it makes good sense for Council to now lead the way in addressing these issues.

There are four main areas when evaluating fleet purchases which should be considered;

- Financial – whole of life costs
- CO2 Emissions
- Air Pollution
- Safety – Driver, Passenger & Pedestrian

Financial (*Whole of Life Cost*) –

In simple terms Whole of Life costing includes a combination of operational costs and capital costs. Operational costs include such things as management costs, registration, accounting costs, accessories, tyres, fuel, repairs and insurances to name a few, capitals costs reflect generally the change over cost when replacing vehicles, the combination of both providing the whole of life cost.

Increased purchase cost associated with the procurement of a 4 cylinder Diesel vehicle would be approximately \$800.00 with this increase negated due to an expected higher return than current sedans at the time of change over. Indications at this present time are that the VW 1.9 TDI Golf will realise slightly increased dollar returns at time of change over in comparison to Councils existing sedan fleet and within the current climate of ever increasing fuel costs and a general move away from the traditional six cylinder vehicles by the general public, the market for the 4 cylinder diesel may see even greater returns in the resale market in the months to come.

As explained in previous reports the real cost savings will be in the fuel area, although currently on average, diesel is 4 to 5 cents more expensive than petrol, the increased fuel efficiencies by far out way the difference, as shown in the table (B).

Table B

Vehicle	Fuel Cost – cents/Ltr	Fuel cost based on 40k
Ford Falcon ULP	\$1.25	\$5750.00
VW Golf Diesel	\$1.30	\$2860.00
	Saving	\$2890

CO₂ Emissions –

The main greenhouse gas emitted by motor vehicles is carbon dioxide (CO₂). The level of CO₂ emissions is linked to the amount of fuel consumed by the car, and the type of fuel used. All new vehicle models, up to 3.5 tonnes gross vehicle mass, sold in Australia are tested to determine both the fuel consumption and the level of CO₂ emissions.

The Australian Greenhouse Office is responsible for compiling data on CO₂ emissions; the value is used to derive the greenhouse rating of a vehicle as illustrated in the table (C).

Air Pollution –

The Air Pollution Rating is based on the level of air pollutant emissions allowable under the standard to which the particular vehicle has been successfully tested for supply to the Australian market.

Clean Car Benchmarks –

The NSW Clean Car Benchmarks categorise the relative environmental performance of new cars available on the market. The benchmarks apply to all motorised vehicles under 3.5 tonnes GVM with four or more wheels.

When a vehicle is rated using the Clean Car Benchmarks, it is given:

- A score out of 10 for noxious pollutants (oxides of nitrogen, fine particulates and hydrocarbons); and
- A score out of 10 for greenhouse gas emissions (measured as CO₂ from fuel consumption).

The environment performance score (out of 20) is the sum of the greenhouse score plus the noxious pollutants score. The environment performance score determines whether the vehicle is placed in benchmark category **A** (leading Edge), **B** (Significantly above average), **C** (average) or **D** (Below Average), as set out in the table (C);

The Premiers Department issued a circular earlier this year **detailing the responsibilities**

Table C

Vehicle	CO ₂ Rating	Air Pollution	Benchmark Rating	Category Rating
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		Rating		
Holden Commodore ULP	4.5	5	9.5	C
Ford Falcon ULP	4.5	5	9.5	C
Mitsubishi Outlander – 4 cyl	5	5.5	11.5	C
Mitsubishi Challenger – 6 cyl	3.5	5	8.5	D
Nissan X-trail – 4 cyl	5.5	5	10.5	C
Ford Territory 2WD	3.5	5	8.5	D
Ford Territory AWD	3.5	5	8.5	D
Toyota Prado	3.5	1	4.5	D
VW Golf Diesel	7.5	6.5	14	B

Safety Considerations –

Australian New Car Assessment Program (ANCAP) involves crash testing new model vehicles under strictly controlled conditions to compare the injury levels (and survival prospects) of occupants involved in frontal and side impacts, and publishing the results. There are also separate tests to assess pedestrian protection. These tests are comprehensive and undertaken to give consumers an understanding of the potential injury risk if involved in an accident while in a vehicle. The tests are rated on a scale of 1 – 5.

While all vehicles in Councils current sedan fleet rated equally on 4 star ratings the VW Golf rated 5 and at the 2004 Euro NCAP crash test program, which rates Frontal and Side impact, Pedestrian Safety and Child Protection out of 15 (max 5 star rating in each area) the VW Golf scored a combined rating of 12. It should be noted that no other car, including those in heavier, more expensive classes have ever achieved such a high rating.

Frontal and Side impact – 5 Star

Pedestrian Safety – 3 Star

Child Protection – 4 Star

References

- Australian Government Green Fleet Guide produced by the Australian Greenhouse Office
- *Smartbuy NSW Government Contract e Marketplace*
- *ANCAP (Australian New Car Assessment Program)*
- *EURONCAP (European New Car Assessment Program)*

REPORT IMPLICATIONS:

- ***Environmental***

Nil

- *Social*

Nil

- *Economic (Financial)*

As per report.

- *Policy or Statutory*

There are no policy or statutory implications arising from this report.

- *Director's Review*

Currently the only 4 cylinder diesel passenger vehicle on the government contract list (653-C) is Volkswagen.

RECOMMENDATION:

That Council through negotiation and consideration of the requirements of staff and job use, where appropriate purchase four cylinder Diesel passenger vehicles in preference to the existing practice of purchasing 6 cylinder petrol sedans.

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G B Snape
DIRECTOR CORPORATE SERVICES