

# Toolbox: Fuel Comparison



## Fuels

Many vehicles on the road today are compatible with lower emission fuels.

LPG vehicles have long offered emissions reductions and cost savings. Now, with the emergence of fuel blends with renewable content, petrol and diesel vehicles have an increasing range of fuels to choose from.

The renewable fuels offer emissions reductions and help reduce dependence on foreign product.

See our Transport Fuels <sup>PDF</sup> fact sheet for descriptions of each fuel type.

## Emissions Reduction

Based on the Australian Government's National Greenhouse Account Factors (July 2012), emissions reductions compared to petrol are up to 7% for E10 and up to 79% for E85. LPG offers around 10% emissions reductions compared to petrol.

With respect to diesel, B5 offers 4.5% emission reductions, B20 offers 18% and B100 offers over 99% reductions.

## Break-Even Fuel Prices (Ready Reckoner)

Tables 1 and 2 provide equivalent fuel prices for different fuels, based on energy content.

**Table 1: Petrol, Ethanol and LPG**

Petrol	E10	E85	LPG
100¢/L	97¢/L	73¢/L	75¢/L
105¢/L	102¢/L	77¢/L	79¢/L
110¢/L	107¢/L	80¢/L	83¢/L
115¢/L	111¢/L	84¢/L	86¢/L
120¢/L	116¢/L	88¢/L	90¢/L
125¢/L	121¢/L	91¢/L	94¢/L
130¢/L	126¢/L	95¢/L	98¢/L
135¢/L	131¢/L	99¢/L	101¢/L
140¢/L	136¢/L	102¢/L	105¢/L
145¢/L	140¢/L	106¢/L	109¢/L
150¢/L	145¢/L	110¢/L	113¢/L
155¢/L	150¢/L	113¢/L	116¢/L
160¢/L	155¢/L	117¢/L	120¢/L
165¢/L	160¢/L	121¢/L	124¢/L
170¢/L	165¢/L	124¢/L	128¢/L
175¢/L	169¢/L	128¢/L	132¢/L
180¢/L	174¢/L	132¢/L	135¢/L
185¢/L	179¢/L	135¢/L	139¢/L
190¢/L	184¢/L	139¢/L	143¢/L
195¢/L	189¢/L	143¢/L	147¢/L
200¢/L	194¢/L	146¢/L	150¢/L
205¢/L	199¢/L	150¢/L	154¢/L
210¢/L	203¢/L	154¢/L	158¢/L
215¢/L	208¢/L	157¢/L	162¢/L
220¢/L	213¢/L	161¢/L	165¢/L
225¢/L	218¢/L	165¢/L	169¢/L
230¢/L	223¢/L	168¢/L	173¢/L
235¢/L	228¢/L	172¢/L	177¢/L
240¢/L	232¢/L	176¢/L	180¢/L

### Further information:

Email: [DPTI.LowEmissionVehicles@sa.gov.au](mailto:DPTI.LowEmissionVehicles@sa.gov.au)

Web: [www.lowemissionvehicles.sa.gov.au](http://www.lowemissionvehicles.sa.gov.au)



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For example, if petrol costs \$1.40 per litre (140 ¢/L), E10 would give you more kilometres for your money if it cost up to \$1.36 per litre (136 ¢/L).

**Table 2: Diesel and Biodiesel**

Diesel	B20	B100
110¢/L	108¢/L	99¢/L
115¢/L	113¢/L	103¢/L
120¢/L	118¢/L	108¢/L
125¢/L	122¢/L	112¢/L
130¢/L	127¢/L	117¢/L
135¢/L	132¢/L	121¢/L
140¢/L	137¢/L	125¢/L
145¢/L	142¢/L	130¢/L
150¢/L	147¢/L	134¢/L
155¢/L	152¢/L	139¢/L
160¢/L	157¢/L	143¢/L
165¢/L	162¢/L	148¢/L
170¢/L	166¢/L	152¢/L
175¢/L	171¢/L	157¢/L
180¢/L	176¢/L	161¢/L
185¢/L	181¢/L	166¢/L
190¢/L	186¢/L	170¢/L
195¢/L	191¢/L	175¢/L
200¢/L	196¢/L	179¢/L
205¢/L	201¢/L	184¢/L
210¢/L	206¢/L	188¢/L
215¢/L	211¢/L	193¢/L
220¢/L	215¢/L	197¢/L
225¢/L	220¢/L	202¢/L
230¢/L	225¢/L	206¢/L
235¢/L	230¢/L	211¢/L
240¢/L	235¢/L	215¢/L
245¢/L	240¢/L	220¢/L
250¢/L	245¢/L	224¢/L


Even if alternative fuels are at a slight price premium, they offer simple, quick and low cost emission reductions.

Notes:

*B5 has over 99% of the energy density of mineral diesel. The price differential is insignificant, especially as B5 may be marketed simply as 'diesel'.*


*Ensure your vehicle is compatible with any fuels you are considering trialling or using.*

## Calculators

To get a more accurate comparison, you can use the calculators at our website. 

An example of the fuel comparison calculator is shown below:

**Fuel Comparison**

Standard Fuel for Your Vehicle:  

Fuel Price:  cents per litre

**Results**

The COMPATIBLE alternative is cheaper than the standard fuel if it costs less than:

Petrol: 145.0c/L (0.0% Greenhouse gas emissions reduction)  
 E10: 140.4c/L (6.7% Greenhouse gas emissions reduction)  
 E85: 106.1c/L (75.9% Greenhouse gas emissions reduction)  
 LPG: 109.0c/L (11.7% Greenhouse gas emissions reduction)

Pricing based on fuel energy densities. Greenhouse gas emissions include upstream emissions, and are based on the Australian Government's National Greenhouse Accounts Factors (July 2012).

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## See Also:

- [Transport Fuels](#)
- [Online Fuel Comparison](#)

### Further information:

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