

So... you're supporting a blend?

Similarly, ethanol has the potential to be carbon neutral as the products of its use are exactly those required for its production by photosynthesis. It has already been successfully applied as a fuel extender without engine damage and it has a higher octane rating than petrol meaning it burns smoother in high compression performance engines. Finally, this particular fuel contains no impurities such as sulphur and so produces no polluting SO₂ and is easily transportable and can be easily incorporated into fuel blends. ✓

Figure 1 is an illustration of a comparison table for ethanol and natural gas.

Figure 1

	Ethanol (e85)	Petrol (octane)
Combustion reaction chemical formula	$C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$	$C_8H_{18} + 12.5O_2 \rightarrow 8CO_2 + 9H_2O$
Kilograms of greenhouse gases produced when 1L of petrol is burned	2.436 kg (1.51 kg CO ₂) H ₂ O?	3.169 kg (2.17 kg CO ₂) H ₂ O?
Enthalpy	-1289 kJ/mol	-5242 kJ/mol

Again... questioning your justification

Overall, the comparison of ethanol and petrol provides difficulty in determining which source will assist in reducing the amount of vehicle emissions and therefore global warming. There are various advantages and disadvantages that ethanol accompanies with regard to costs, fuel efficiency, vehicle modifications, kilograms of gases produced when 1L of each fuel is burned and enthalpy. Although, the amount of carbon dioxide (greenhouse gas) produced when 1L of fuel is burned is the defining factor in coming to a conclusion about an alternative fuel. According to figure 1, ethanol and petrol result in 1.51 and 2.17 kg of CO₂ produced respectively. Ethanol produces less greenhouse gas when it is released which means it is assisting in eradicating global warming.

In conclusion, it can be identified that Ian Johnson statement regarding global warming is incorrect because there is an alternative source of fuel that can assist in reducing vehicle emissions. This alternative fuel is ethanol, and this produces 0.66 kg less greenhouse gas (CO₂) than our current fuel source petrol. Thereby, this will reduce greenhouse gas emissions which in the long term will help combat global warming. All disadvantages aside; this is the first step to winning the fight against global warming. per what?

Is this significant enough to make a difference?

Cost??

↳ also in the statement.

Cost?