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## INQUIRY INTO AUSTRALIAS FUTURE OIL SUPPLY AND ALTERNATE TRANSPORT FUELS.

**SUBMISSION SUBJECT** - The issue of the mandated addition of ethanol to all petrol products or a price advantage for non-mandated ethanol blended petrol.

### BACKGROUND.

I drive a now superceded model of a four wheel drive vehicle powered by a large capacity petrol engine. I do this by choice and freely accept that it is not as economical a vehicle to operate when compared to small vehicles but it can be reasonably economically competitive when compared to larger family sedans. Fuel consumption on the highway can be as low as 14 litres per 100 kilometers but around town it climbs to 20 litres per 100 kilometers. 14 litres per 100 kilometers is very favorably comparable to many current model six cylinder petrol engined sedans.

Over the last twelve months the price of petrol has risen considerably and like every one else I would like to see it reduced but not by the addition of ethanol blended petrol.

### ETHANOL IN PETROL.

When using any additives in fuel you need to take into account the issues of not only the cars engine but also its fuel tank and the fuel delivery system [i.e. fuel pump, fuel lines, fuel injector pump and fuel injectors. Having a fuel price reduction or artificial price stability by bulking up unleaded petrol with ethanol is a backwards move financially for many car owners. As I explain below many cars can not use an ethanol blend mix nor do their owners wish to be financially penalized because of this.

### THE ENGINE.

The engines in many cars will run on ethanol blended petrol although they will be less durable [they will need more than normal expensive maintenance] and not run well. They will also be down on power due to the inefficiencies of burning ethanol. This power loss is because the ethanol in the fuel will cause a reduction in the overall octane rating. This in turn will cause the car to pump more fuel through the system in order to gain the same level of performance as unblended petrol. The net result will be an increase in fuel consumption with more money spent on fuel as owners continue to use their cars in the normal manner.

## THE FUEL SYSTEM.

The fuel tank and fuel system on my car is as the manufacturer made it. It is plastic with an internal submerged plastic fuel pump and plastic covered electrical wires and plastic fuel connections and plastic fuel lines. This works well using standard unleaded or premium fuels. However a problem occurs if ethanol is added to the fuel.

The ethanol attacks the plastic fuel pump and it becomes severely damaged and will not work. This damage occurs almost immediately and certainly after less than one tank of ethanol blended petrol. This is irreversible damage and does cause the vehicle to stop functioning. The cost of replacing a damaged fuel pump and the associated labour costs is well over \$1000.00. Because of the extremely short term life of the fuel pump if ethanol blended fuel is used the longer term effect of ethanol on the plastic fuel tank is unknown. This is because affected cars are immediately repaired with their ethanol blended fuel load discharged and replaced with unblended petrol.

There are no manufacturer or aftermarket modifications available to prevent this ethanol damage from happening. The compulsory addition of ethanol to petrol will see not only mine but tens of thousands of other cars damaged, not usable and certainly worth financially nothing on the market. The motor vehicle manufacturer's position is that these cars were not designed for the use of ethanol blended fuels so do not use them.

## THE EFFECT OF PETROL PRICE INCREASES ON LARGE CARS AND FOUR WHEEL DRIVES AND THE DIESEL OPTION.

With the ever increasing price of petrol the financial worth of large cars and especially four wheel drives has plummeted drastically in the last twelve months. The effect is that many four wheel drive vehicles and large cars financial worth has reduced by well over 50%. This is a huge, unprecedented decrease and one which no one could have foreseen. This drop applies to the trade in value on another car if you can find a car dealer willing to do a trade in deal in the first place as some are now refusing to trade these cars in. Selling the car privately is an impossibility given today's higher fuel prices. It just has no desirability for purchasers and therefore no value to them.

Because of this lost financial value owners are stuck with them because it is economically impossible for them to change cars or even down size even if this was an option considering that many user needs can only be met by a larger car.

This loss in value in today's market is many thousands [even tens of thousands] of dollars and when you allow for this reduced value, add in the extra money to purchase another large four wheel drive with perhaps a slightly more fuel efficient diesel engine the financial outlay needed is huge. Note here that manufacturers charge an extra price premium for their diesel engined cars over petrol engines and diesel car buyers never recoup that extra expenditure. Also please note that diesel engines need more complex [read expensive] servicing and need it more often than the equivalent petrol engine. The other strike against diesel engines in domestic use is that they do not like the usual domestic use pattern of stop/start running and engines used in this manner are less reliable, less durable and therefore cost more to run than an equivalent petrol engine. This is a large expenditure and one which is hidden until owners begin to use their vehicles.

Even if you were to discount the dollar loss in changing cars and purchased a diesel car the bottom line would be that even though it would be some what more fuel efficient than an equivalent petrol engined car ultimately it would cost more to operate.

The result for thousands of us is that it is distinctly more economical and affordable to keep our cars and pay for higher fuel costs rather than change cars.

#### THE FINACIAL IMPACT ON CARS IF THE MANDATED USE OF BLENDED ETHANOL FUEL IS BROUGHT IN.

Those cars which cannot use ethanol due to the vehicle immobilizing deleterious effects on their fuel systems immediately become totally worthless. No one would want them because they cannot be used. The domestic owners of these cars would be faced with an enormous financial loss which they do not deserve, is not justified and certainly cannot be afforded.

The introduction of voluntary usage of ethanol blended fuel with some sort of price advantage or bias over that of non blended fuels would see similar financial losses occur to owners of vehicles which cannot use ethanol blended fuel.

#### SUMMARY.

Leave the issue of using ethanol blended fuels to individual choice and the market as it is now. Certainly do not make it compulsory for petrol companies to convert all petrol to an ethanol blend. Most people cannot afford the financial loss if only blended ethanol fuel is available nor should they be asked to take this loss.



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