

Attn: Committee Secretary Standing Committee on Environment & Heritage House of Representatives Parliament House Canberra, ACT, 2600

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Secretary: JakSam
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HOUSE OF DEPUPSENTATIVES
STANDING COMMUTTEE ON ENVIRONMENT AND HERITAGE

16 September, 2003

#### Dear Sir/Madam

#### Re: Submission into Sustainable Cities 2025

My name is Michael Fitzpatrick and I represent Ventura Bus Lines Pty. Ltd. I write in response to the discussion paper dated August 8, 2003 into the future sustainability of Australian cities.

In 1999 Ventura Bus Lines was the first Australian company to introduce Ethanol powered buses into it's fleet. The trial has been a resounding success, and has lead to a 50% reduction in harmful emissions of a standard diesel bus. The enclosed submission outlines the reasons Ventura undertook this ethanol trial, the results of the trial, and Ethanol's future.

On behalf of Ventura Bus Lines, I thank you for the opportunity to make a submission into this inquiry, and welcome the possibility to contribute to any future round table forum.

Kind Regards,

Michael Fgp

Michael Fitzpatrick Marketing Coordinator



# SUSTAINABLE CITIES BLUE PRINT 2025

# "ETHANOL: FUEL OF THE FUTURE"



Submitted to:

Committee Secretary Standing Committee on Environment and Heritage House of Representatives Parliament House Canberra, ACT, 2600

Submission by:

Michael Fitzpatrick, on behalf of: Ventura Bus Lines Pty. Ltd. PO Box 317 Oakleigh, VIC, 3167

Submission date:

16 September, 2003

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# SUSTAINABLE CITIES BLUE PRINT 2025

## "ETHANOL: FUEL OF THE FUTURE"



What will our cities be like in 2025? Will we continue to witness the thick smog that already hangs over our cities blacken? What kind of legacy do we want to leave the next generation? An over-heated planet where the air our children breathe slowly poisons them?

While these scenarios sound horrific, they are very real if Australia's insatiable demand for fossil fuels is not quelled over the next decade.

There is no doubt that as we move towards 2025, Australia needs to not only become less car dependent, but less dependent on the fossil fuels that run them.

In 1999 Melbourne Company Ventura Bus Lines took the initiative and introduced Australia's first two buses to operate on a totally renewable fuel: *Ethanol*.

*Ethanol* is a fuel of the future, produced using sugar cane harvested in Queensland. Ethanol's production creates rural employment for Australians. Ethanol is totally renewable and is cleaner than diesel, emitting half the amount of emissions.

Despite some initial teething problems, Ventura's Ethanol trial has been a major success.

These teething problems included the Buses experiencing vaporisation of the fuel during the extreme heat of the Australian summer. This was rectified when manufacturer Scania provided an additional part that helped cool the engines down on hot days.

As Ventura C.E.O. Andrew Cornwall explains "We see *Ethanol* as a sustainable alternative to Diesel powered buses. The emission from one ethanol bus is half that of a diesel bus. *Ethanol* has the potential to be great for Australia economically as we can produce a totally renewable fuel locally that is in no way linked to rising world oil prices"

## **2.0 A SWEETER ALTERNATIVE**

Ethanol is made from Molasses, a by-product of sugar. Ventura's Ethanol supply comes from Queenslands sugar cane fields, and is produced by CSR.

CSR have been producing Ethanol for over 100 years and has been used in the Australian manufacturing industry for a wide range of products including after shaves and perfumes, flavourings, vinegar and as a base for gin, ouzo and liqueurs.

### **3.0 THE BENEFITS OF ETHANOL**

"To increase ethanol use, is to reduce imports, and improve the environment and economy"

#### 3.1 Local Community

The local community benefits through cleaner air quality that improves our standard of living. Being an Australian produced fuel, the production of Ethanol also leads to rural employment. There is also the potential that if Ethanol becomes a 'mainstream' fuel, the price of Ethanol would likely decrease to levels below current LPG and Diesel prices.

#### 3.2 Ventura

As an operator of Ethanol powered buses, Ventura has benefited through overwhelming public goodwill and support. Ventura has positioned itself as a company that is actively seeking ways of reducing greenhouse emissions. Ventura is also a member of the Greenhouse challenge, having won an award in 1999 for its commitment to the environment.

#### 3.3 Australia

The environmental benefits of ethanol have been well documented, and widespread Ethanol use would extend a long way to fulfilling Australia's greenhouse emissions targets. Providing a cleaner environment for future generations and slowing global warming.

There are significant economic benefits for the nation including improving our Trade deficit by reducing imports and creating rural employment in Queensland's sugar producing areas.

In the future, there is potential for Ethanol to become a significant export market for Australia, particularly to underdeveloped Asian countries that already experience significant pollution problems.



## **4.0 FEDERAL GOVERNMENT ALTERNATIVE FUEL GRANT**

The federal Government introduced an alternative fuel grant to encourage the introduction and trial of alternative fuels in Australia.

Ventura's ethanol program has been assisted by the Federal Government who subsidise the additional fuel costs of its *Ethanol* powered buses through the Government Fuel grant.

Ventura would like to order more *Ethanol* powered buses from Scania however the Federal Government will not increase the existing grant to accommodate more buses. Without this grant, Ventura simply cannot afford to run additional Ethanol buses and remain commercially competitive.

#### 5.0 THE MEDIA:

## 5.1 The Good...

The 1999 launch of Ventura's ethanol program received widespread national and international media coverage. Television and Radio coverage of the launch helped to link public transport and the environment in a positive way.

#### 5.2 The Bad...

More recently *Ethanol* blends in car engines have received negative publicity from some sections of the media. *Ethanol* is highly corrosive, as a result it has been suggested that Ethanol can corrode older car engines that were not manufactured to run on ethanol.

On Wednesday September 10, 2003 the Sydney Morning Herald reported that Ethanol use reduces the ability of up to 40% of the 10 million cars in Australia to run satisfactorily. The SMH also reported that Ethanol caused most pre-1988 cars, along with most pre 1998 Falcons to run unsatisfactorily.

Ventura's fleet of *ethanol* powered buses are custom made by Scania to run on Ethanol. All buses feature a stainless steel fuel tank and fittings that are designed to accommodate *Ethanol's* corrosive properties.

After three years Ventura's fleet of Ethanol powered buses have performed exceptionally well, without the need for any additional maintenance of a standard diesel bus.

## 6.0 COMMUNITY SUPPORT:

"...With companies like yours around, my one-year-old child may have some hope of enjoying our beautiful environment when he is my age..." Extract from letter from community member

The public support for Ethanol has been overwhelming. Ventura regularly receives letters, emails or telephone calls from members of the public supporting Ventura's Ethanol program and it's environmental benefits.

Here lies a major commercial incentive for the use of Ethanol. This response is priceless to companies such as Ventura. The commitment Ventura shows to the environment is acknowledged by the community it serves, and this in turn creates increased patronage on bus services improving Ventura's bottom line.

#### 6.1 But how does ethanol help to reduce car use?

The introduction of Ethanol buses has been introduced to appeal to the conscience of the environmentally concerned young adults. Ventura's ethanol fleet services an area that includes Monash, Swinburne and Deakin Universities, along with several TAFE colleges.

It is hoped that these young adults will ride an environment friendly Ethanol bus to University or TAFE, rather than purchase a car that is expensive to run and damaging to the environment.

We know this marketing strategy is working as we receive at least three e-mails, letters or phone calls per week encouraging the use of renewable fuels.

## 7.0 OTHER ETHANOL TRIALS:

Aside from Ventura's Melbourne *Ethanol* trial there have also been trials in Stockholm, Sweden and a small trial in Mexico City. Many countries around the world including Brazil and the USA have trialed ethanol blends in petrol and diesel. These blends are often capped at 10% ethanol, however in Brazil the ethanol content is capped at 26%.

Australians need only look out from their doorstep to see what lies ahead if we cannot find a solution to our ravenous consumption of fossil fuels. For most of 2002 a toxic cloud of pollution hung over South East Asia and India that led to thousands of respiratory related deaths.

## **8.0 PERFORMANCE: ETHANOL VS DIESEL**

With regards to the environment, Ethanol is an excellent fuel alternative as an *Ethanol* Powered bus emits half the amount of harmful emissions (Co2) as a standard diesel bus.

Ventura drivers love driving our ethanol buses. The on-road performance is excellent and there's no difference with the handling and responsiveness of an *Ethanol* bus. Drivers also comment that *Ethanol* engines are quieter and produce fewer emissions than a standard diesel bus.

Mechanically the Ethanol buses have stood up to the rigours of Melbourne's suburban roads, without the need for any extra maintenance work than the rest of Ventura's 200 strong bus fleet.

## 9.0 RESULTS:

Cost: Ethanol Buses cost 6% more than a Diesel

#### Diesel vs. Ethanol

- Compression Ratio is Higher in Ethanol powered buses
- Valve Seats are made of a new material
- Cam shaft is different
- The intercool has been changed
- The piston crown is different to provide the increase in Compression, while the injector pump has stainless steel inserts and an additional oil gallery for cooling and lubrication

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## Running cost per bus:

As Ethanol is not mass-produced, the cost per litre is far more expensive than crude oil. With increased demand for ethanol, there is no reason why as supply increases, the price would not fall well below the cost of other imported fuels.

## **11.0 THE NEED FOR LEADERSHIP:**

Ethanol's future remains in doubt. Despite the success of Ventura's trial, Ethanol has yet to catch on in other parts of Australia. The major reasons are:

- The additional cost associated with purchasing an Ethanol-powered bus,
- The cost of purchasing ethanol.
- The lack of distribution of ethanol

The benefits of Ethanol are clear, a cleaner fuel, a cleaner environment and a strong economy.

#### 11.1 To continue to grow our Ethanol fleet we need Government support!

What Ethanol needs is Government support, Ventura Bus Lines has led the way by introducing Ethanol to Melbourne's public transport system, however for Ventura to continue to expand its Ethanol fleet requires further government assistance for the higher cost of purchasing Ethanol. Despite Ventura's intentions of expanding its ethanol fleet, the fact remains that the company must remain viable within the highly competitive Victorian public transport industry – without government assistance this is impossible.

### 12.0 THE FUTURE:

Ventura is willing to become a leader and champion for Ethanol. With government assistance it is Ventura's goal to introduce a further 30 Ethanol powered buses. This would no doubt encourage other bus companies to introduce ethanol buses into their fleet.

In time car manufacturers begin producing ethanol-powered cars, and fuel companies start refining and add Ethanol to their bowsers. Sound far-fetched? So too did solar power, but look now how solar is beginning to take off with many households now placing panels above their homes for their household power and to heat swimming pools.

Ethanol has the potential to become a widely used alternative fuel of the future. Scania's custom-made Ethanol engines prove that Ethanol is a successful fuel when used in the correct *purpose built engines*.

Ethanol is a sustainable alternative to oil supplies that will one day run dry. The community, Business and Government must work together to support and encourage the use of renewable fuels, ensuring a sustainable future. The future is in our hands.