

# ACE

Australian Coalition for Ethanol



Dalby  
Bio-Refinery Limited

## Briefing Paper

### Senate Economics Committee

7 October 2003



**ethanol**  
Fuel For Clean Air

# Why did we start?

# ACE

Australian Coalition for Ethanol

**The Howard Government**

**Putting Australia's  
Interests First**

*ELECTION 2001*

**certainty · leadership · strength**

**OUR FUTURE ACTION PLAN  
Biofuels for Cleaner Transport**

**Biofuels for Cleaner Transport** is the Howard-Anderson Government's plan to promote the production, distribution and transport use of ethanol and biodiesel. It will provide new industries and jobs for rural Australia and cleaner air for our cities.



## **Govt policy resulted in:**

- Feasibility study
- Technology transfer agreement
- Engineering & design completed
- Initial tenders called
- Supply contracts signed
- Capital raising undertaken
- Over \$2.5 million spent to date

PricewaterhouseCoopers



HON WARREN TRUSS MP

Minister for Agriculture, Fisheries and Forestry

The Hon Bruce Scott MP  
Federal Member for Maranoa  
PO Box 641  
DALBY QLD 4405



- 8 MAR 2002

Dear Bruce

Thank you for your letter of 30 January 2002 on behalf of Mr Bill Elliott of Petro Fuel and Lubricants regarding support for a grain ethanol plant at Dalby under the 'Biofuels for Cleaner Transport' program and the continuation of the Government's exemption of excise for fuel ethanol.

In relation to the 'Biofuels for Cleaner Transport' initiative announced during the 2001 election campaign, the Government is currently in the process of developing guidelines for the operation of the program. My Department has taken note of Mr Elliott's details and will forward program guidelines and an application form when they become available. As outlined in the Government's policy announcement, I anticipate funding will become available from July 2002.

On the matter of the excise exemption for fuel ethanol, I can confirm on behalf of the Government that, as stated in the 'Biofuels for Cleaner Transport' policy, the current exemption of fuel ethanol from the \$0.38 per litre excise on petroleum products will be maintained.

While I give this commitment on behalf of the current Government, I cannot give any assurances on the actions that future Governments may choose to take in relation to fuel taxation and excise related issues.

Thank you again for your representations on behalf of Mr Elliott. I trust this information will be of assistance to Mr Elliott and his company.

Yours sincerely

WARREN TRUSS

## Letter of support from the relevant Minister

On the matter of the excise exemption for fuel ethanol, I can confirm on behalf of the Government that, as stated in the 'Biofuels for Cleaner Transport' policy, the current exemption of fuel ethanol from the \$0.38 per litre excise on petroleum products will be maintained.

13 August 2001

## TO WHOM IT MAY CONCERN

*I am writing to support the application for funding being made by Petro Fuel and Lubricants to proceed with The Darling Downs Grain Ethanol Project.*

*The project will produce a minimum of 60 million litres of ethanol for blending into fuels as a fuel additive and as an alternative for harmful octane enhancing additives such as MTBE, toluene and xylene. It has been shown in the USA that the E-10 (10% ethanol in petrol) has reduced air pollution particularly SOX, NOX and particulates. The use of ethanol as an octane enhancer will also serve to upgrade the value and versatility of Queensland produced crudes.*

*The project will create 34 permanent positions at Stage One (directly after commissioning) and well over 100 jobs indirectly. Over 120 positions will be created during the 12 month construction period commencing first-quarter 2002. There is no doubt this will result in a flow on effect throughout western Queensland.*

*This project provides a market for a minimum of 150,000 tonnes of locally grown grain and produces at least 50,000 tonnes of high protein stock food supplements as a bi-product which replaces imported soymeal in local cattle, pig and poultry feedlots.*

*I have no hesitation in recommending this application for your favourable consideration.*

Yours sincerely,



The Hon Ian Macfarlane MP  
Minister for Small Business  
Federal Member for Groom

# Letter of support from Ian Macfarlane

*The project will produce a minimum of 60 million litres of ethanol for blending into fuels as a fuel additive and as an alternative for harmful octane enhancing additives such as MTBE, toluene and xylene. It has been shown in the USA that the E-10 (10% ethanol in petrol) has reduced air pollution particularly SOX, NOX and particulates. The use of ethanol as an octane enhancer will also serve to upgrade the value and versatility of Queensland produced crudes.*

Maryborough City Council  
Dalby Town Council  
Bowen Shire Council  
Toowoomba City Council  
Millsmerra Shire Council  
Chinchilla Shire Council  
Rosalie Shire Council  
Mareeba Shire Council  
Johnstone Shire Council  
Goondiwindi Shire Council  
Townsville City Council  
Whitsunday Shire Council  
Pittsworth Shire Council  
Bundaberg City Council  
Sarina Shire Council  
Jondaryan Shire Council  
Mackay City Council  
Burdekin Shire Council  
Waroo Shire Council  
Tara Shire Council  
Warrick Shire Council  
Douglas Shire Council  
Dalby Chamber of Commerce  
Mareeba District Chamber of Commerce  
Tableland Economic Development Corporation  
Malanda Chamber of Commerce  
Cairns Chamber of Commerce Inc  
Ayr Chamber of Commerce Inc  
Home Hill Chamber of Commerce Inc  
Burdekin Area Business Association  
Neumann Petroleum  
Morland Energy Pty Ltd  
Petro Fuel and Lubricants IFS  
SEQ Fuels  
Delta Pacific Solutions  
Dalby Bio-Refinery Ltd  
TFA Project Group  
Philp Brodie Grains  
Friends of Ethanol

The Hon John Howard MP  
Prime Minister of Australia  
Parliament House  
Canberra ACT 2600

Dear Prime Minister,

**Do you have an ACE up your sleeve for struggling towns in rural and regional Australia?**

The establishment of a biofuels industry in Australia, based on the production of ethanol, would have a major impact on regional and rural communities by generating employment growth and new investment.

Our communities, struggling already because of the prolonged drought, need your help.

In 2001, your Government announced a Biofuels for Cleaner Transport policy which provided assurances that exemption of ethanol and biodiesel from excise would be maintained.

Based on these assurances a number of biofuels production projects have been developed.

However, the establishment of an economically viable, environmentally sound ethanol industry has now been hijacked by politics.

We need for you to get the debate back on track. Let's address the real issues and clear up a number of misconceptions related to ethanol blended petrol (E10):

- E10 is not bad for cars.
- E10 will not compromise vehicle warranty and vehicles will not require modifications.
- E10 is not more expensive.
- E10 will reduce carbon dioxide emissions resulting in increased environmental benefits.
- Other countries, such as the United States, have successfully introduced ethanol mandates.

Prime Minister, the time for petty politics is over. You need to take a leadership role and show us you are committed to delivering jobs and investment.

Yours faithfully

**ACE**  
**Australian Coalition for Ethanol**

# Open letter to John Howard

# State Government support



## Joint statement

### **BEATTIE SUPPORTS CALL FOR ETHANOL INDUSTRY IN REGIONAL AREAS**

Premier Peter Beattie has supported a call by local government, small business and fuel producers for the Commonwealth to establish an ethanol industry to generate jobs and investment in regional areas.

Mr Beattie said that in an ad published in today's Courier Mail, the Australian Coalition for Ethanol rightly points out that the time for petty politicking over the establishment of an Australian biofuels industry is over.

"As I told State Parliament last month, projects such as the Dalby bio-refinery where the proponents are looking to invest \$79 million to derive ethanol from grain are doing it tough," Mr Beattie said.

"This project has the potential to deliver 400 construction jobs and 34 ongoing jobs, not to mention the economic spin-offs it would generate in that region.

"Unfortunately, this project is at risk because the Commonwealth was slow to act in placing a cap on ethanol in petrol and that has eroded public confidence in the product.

"My Government is trying to rebuild that confidence by participating in Caltex's ethanol trials in Cairns; the Federal Government could further boost consumer confidence by supporting an extended trial."

Mr Beattie said the Federal Government must also extend the excise subsidy indefinitely to provide certainty for producers and to meet the undertakings it has previously given to the industry to keep the price of ethanol competitive.

"The alternative is higher fuel prices. In Queensland alone we would be looking at a price rise of two to three cents a litre for ethanol blends if the subsidy is not extended indefinitely.

"The Federal Government also needs to encourage a competitive market for ethanol production with a scheme which rewards producers who innovate and reduce production costs.

"It could do this by making its capital subsidy regime available to new entrants to the market."

State Development Minister, Tom Barton, said the Federal Government should also look at conducting a consumer education campaign on ethanol.

"The Commonwealth also needs to develop a strategy for the implementation of a mandated minimum level of ethanol in petrol and to guarantee supply to the community by ethanol producers who receive government support to develop this industry.

"The Queensland Government is keen to work in a bi-partisan spirit to promote this important industry and ensure it has a sustainable future," Mr Barton said.

Environment Minister, Dean Wells, said Queensland is committed to kick-starting the ethanol market.

"Ethanol blended fuel makes good sense for the community, the sugar industry and the environment.

"Ethanol can deliver real benefits through reduced greenhouse gas emissions, increased regional development and jobs for Queenslanders.

"It is a simple but economical way in which we can all be a bit greener," Mr Wells said.

1 September 2003

Media contact: Anne Delaney (Premier's office) 3224 4500  
Michael O'Meara (Minister Barton) 3224 4600  
Annastacia Palaszczuk (Minister Wells) 3225 1800

Why are we here?

ACE

Australian Coalition for Ethanol

**We are here because the recently announced budget package for ethanol and other renewable fuels prevents us from advancing our project.**

**Why?**

Why ?

ACE

Australian Coalition for Ethanol

**Because what you've offered won't  
work ...**

**... what you've promised will !**



# Industry status



The renewable fuel industry is on hold because:

**The Australian consumer has lost confidence in ethanol blends**

**Because of**

**Confusion about the impact of ethanol to engines**

**+**

**The lack of a clear policy position from Govt**

**+**

**The oil companies propaganda on their websites and at their service stations**

**+**

**The confusion on whether labelling means its good or bad!**

**=**

**Uncertainty about what the benefit of ethanol is: Taxes v Benefits?**

# A case study



The analysis completed by the Dalby Bio-Refinery (DB) project is considered analogous to other grain and sugar based ethanol projects.

The project is showcased due to its advanced stage of development and the detailed financial and business analysis completed by the Promoters and project team, including PricewaterhouseCoopers.

# The Promoters



Dalby  
Bio-Refinery Limited

The promoters of the DB project, Chris Harrison and Ross Harrison, have over 25 years of involvement in the fuel industry with a long history of experience in industry development, transport, and logistics.

Both promoters are Directors of Petro Fuel and Lubricants (“Petro”), a Queensland fuel distribution business. Petro is currently Caltex's largest independent distributor of fuel and lubricants in Australia and one of the largest independent fuel suppliers in Australia.

# Highlights

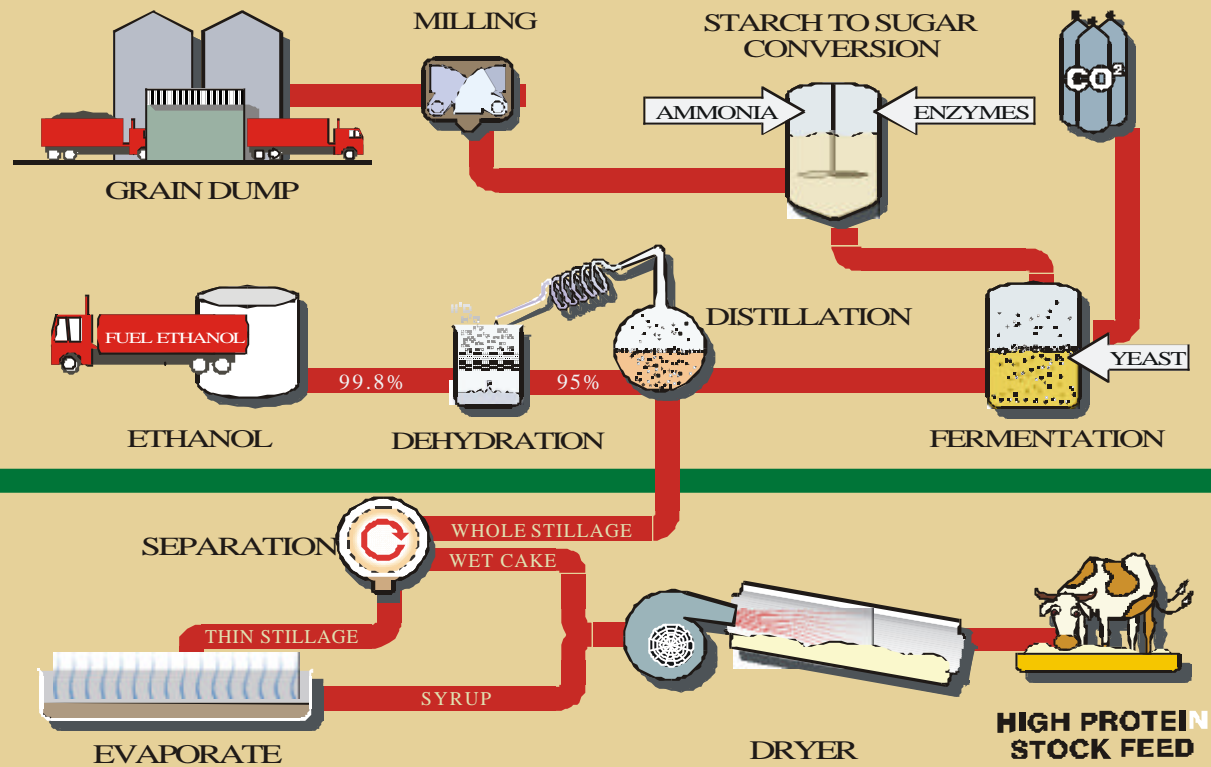


## Total Investment is \$80m

- Full operational capacity 78ml to 83ml p/a (including denaturant)
- Technology provider is Delta-T Corporation (worlds best practice)
- Sorghum Grain requirement at full production + 211,000t pa
- DDG (high protein stock feed) 26% of sales, dry DDG produced is 72,000t at full production.
- 34 permanent jobs, 186 indirect permanent jobs, 465 construction jobs

**Contracts in place for the sale of 65Ml of ethanol p/a**

# Grain Ethanol – Process Schematic



# Ethanol contracts



- DB is the only new Ethanol project in Australia with contracts in place for the sale of ethanol.
- DB has sold 65ml of ethanol on 5 year take-or-pay contracts.
- Pre-sales are fundamental to successful project financing.

**BUT**

**Our Customers insisted on the contracts being contingent on the excise policy, at the time of signing, remaining in force.**

# DB project advantages



- High Protein stock feed by-product – import replacement
- Low energy consumption / Efficient water usage
- High efficiency starch to ethanol conversion
- R&D – fuel research, new products, CSIRO
- Feed stock – sorghum - drought resistant, crop substitution
- Dalby site – close proximity to market, farmers, feedlots
- Meets all requirements for the Capital Grant Scheme

# Key Project Assumptions



<b>Assumptions</b>	<b>Source</b>
No Excise Capital Subsidy of \$10m Govt certainty, leadership, strength	Biofuels for Cleaner Transport Policy: The Howard Government
Exchange rate; CPI Index; US CPI	Access Economics
Crude Oil price	US Dept of Energy
Grain Price	ABARE
Capital costs, operation costs, technology exchange	Delta-T Corporation



# Project Risks



## **Grain Feedstock availability & prices**

62% of total costs - require 190,000 – 211,000 tonnes sorghum p/a

## **Ethanol prices**

Pegged to the world oil prices.

## **Interest / Debt servicing**

60% debt financing at 8.5% = \$3.5m in 2008

## **Ethanol Market risk – Consumer confidence**

Plant will have a capability of 80m/l p/a breakeven is at 80% of capacity in 2008

## **Sale of DDG (distillers grains) - high protein stock feed**

Accounts for 26% of sales

## **Government Risk**

Excise duty, mandate, labelling, capital grant & RVP

# Commodity Supply - Risks



The purchase of 211,000t of sorghum per annum is an important area of risk for the project.

Ethanol price is also a risk as it is based on oil prices.

From a hedging perspective there is a relationship for the project between the:

- oil price as this determines the ethanol price, and
- the A\$/US\$ exchange rate, and
- the US\$ price of corn (this is a proxy for the price of sorghum).
- PwC modelling shows no consistent relationship between these variables.

# Commodity Price & Exchange Rate Sensitivity (Pre Budget)



Scenario 1	2005	2006	2007	2008	2009	2010
Sorghum Price (\$A/tonne)	220	236	244	252	257	265
US Exchange Rate	0.64	0.61	0.58	0.58	0.59	0.59
World Oil Price (USD/Brl)	23.59	24.22	24.86	25.49	26.17	26.86

Scenario 2	2005	2006	2007	2008	2009	2010
Sorghum Price (\$A/tonne)	185	188	190	193	196	199
US Exchange Rate	1.00	1.17	1.19	1.28	1.32	1.43
World Oil Price (USD/Brl)	23.59	24.22	24.86	25.49	26.17	26.86

Scenario 3	2005	2006	2007	2008	2009	2010
Sorghum Price (\$A/tonne)	185	188	190	193	196	199
US Exchange Rate	0.64	0.61	0.58	0.58	0.59	0.59
World Oil Price (USD/Brl)	14.4	11.8	11.1	10.5	10.5	10.0

The scenarios above produce an ROI% (NPAT/Total Equity) of zero:  
 (the highlighted row is the variable resulting in an ROI of zero)  
 The white rows are based on the projections for the project.

# Debt providers Position



*.... we consider the following key industry aspects need to be clarified by way of Government legislation to enable further assessment of the project finance requirements by the Bank:*

- Fuel Standards Legislation to govern fuel quality and blending percentages.*
- Mandated blending levels and/or target for ethanol blended fuels.*
- Long term excise exemptions.*

*The above key aspects are considered essential to improving consumer perceptions and acceptance of ethanol blended petrol. ....*

*Pending clarification of Government legislation and the above issues to the Bank's satisfaction we advise that we are not able to issue an "Indicative Term Sheet" pertaining to the project finance requirements.*

# BP Position



*BP recently decided to conclude the E10 trials in Brisbane. The trials went extremely well from a technical perspective, and demonstrated that E10 could be manufactured and marketed with no adverse impact on customers vehicles. Sales of the product also went well until the flood of negative media during December. ...*

*... BP will not recommence manufacture of E10 until:*

- *A 10 % limit is set nationally*
- *Labelling of ethanol content is mandatory*
- *Government policy for support of the ethanol industry is clear (successor to the 38 c/l producer subsidy)*
- *Consumer perceptions of ethanol is turned around*

**Peter Hatchman Project Manager BP - 24 February 2003**

# How do you work out the Ethanol Sale Price?



The ethanol pricing formula is as follows:

- Singapore Ron 95 Index
  - Convert from barrels to litres
  - Convert to A\$
  - Add shipping costs from Singapore
  - Add petrol excise duty of 38.14cpl
- = Ethanol price at factory gate

As at 24 June 2003 = 69.04cpl\*\*

**Ethanol price targeted at Terminal Gate Price before discounts\***

**Major oil companies insist on a discount of 8cpl to cover their marketing and infrastructure cost**

\*Can not be exactly the same because of leads & lags and Australian refinery margins

\*\* Based on Oil at US\$30.82bbl and exchange rate US\$/A\$0.6693

# Ethanol Pricing Major Variables (2001 Dollars)



Long-term  
Exchange  
rate  
projection  
= US\$0.58

Long-term  
price  
projection  
Crude Oil =  
US\$23/barrel

Year	World Oil Price (\$US/barrel)	Sing Mogas 95 (\$US/barrel)	US\$/A\$	Sing Mogas 95 (\$A/barrel)
1999	17.60	20.04	0.66	30.36
2000	27.72	29.65	0.60	49.41
2001	26.72	28.44	0.55	52.08
2002	25.72	27.33	0.52	52.97
2003	24.73	26.68	0.59	45.22
2004	23.73	25.89	0.63	40.97
2005	22.73	24.97	0.64	38.78
2006	22.86	24.96	0.61	40.72
2007	22.98	24.93	0.58	43.13
2008	23.11	25.07	0.58	43.14
2009	23.23	25.21	0.59	42.95
2010	23.36	25.35	0.59	42.90
2011	23.49	25.44	0.58	43.71
2012	23.62	25.57	0.58	43.93
2013	23.74	25.69	0.58	44.14
2014	23.10	25.06	0.58	43.11

# Ethanol Pricing Matrix



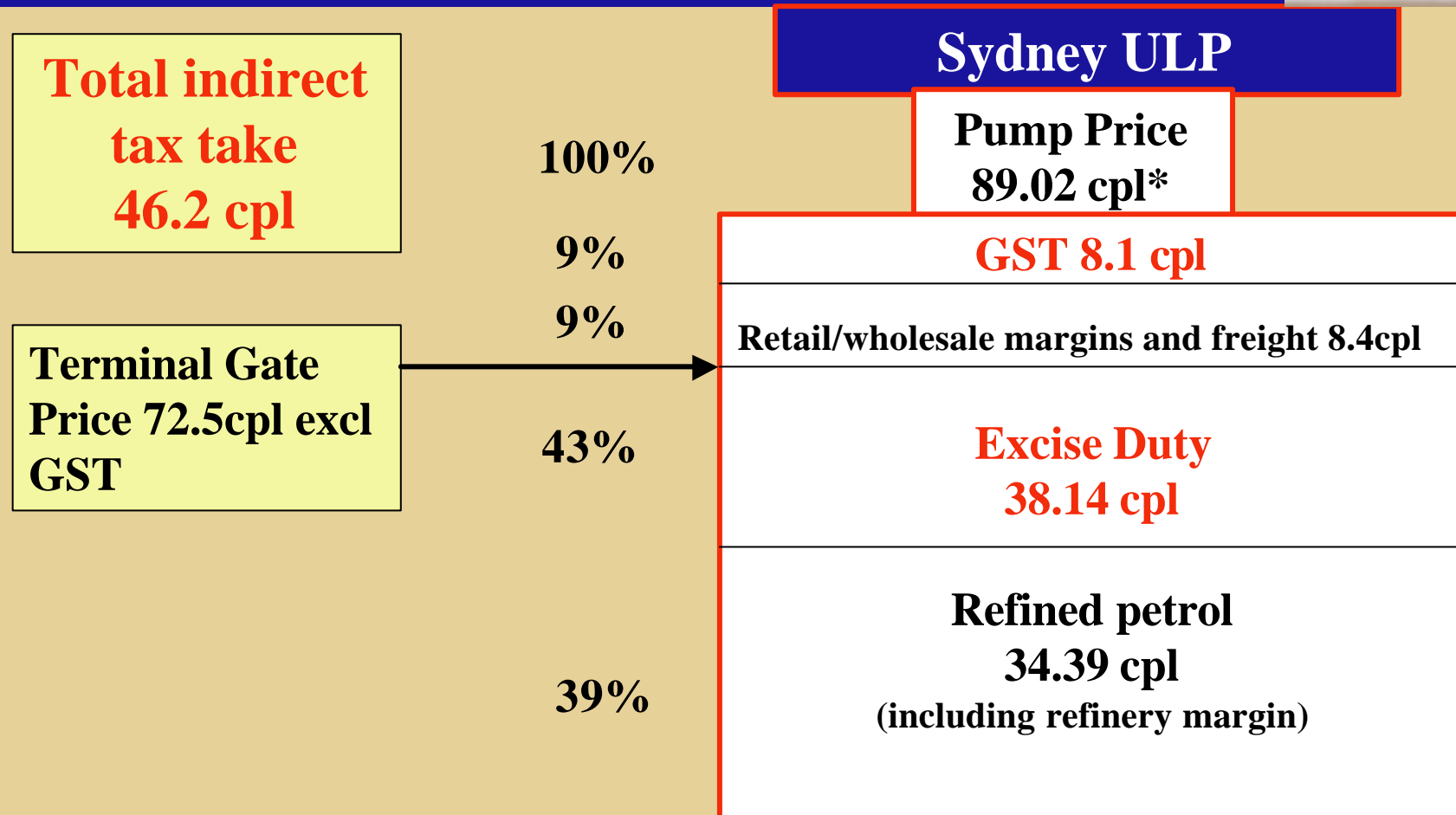
		US/AU Exchange Rate											
		0.51	0.52	0.53	0.54	0.56	0.57	0.58	0.59	0.6	0.63	0.64	0.6693
Mogas 95 (\$US/BrI)	16	0.60	0.59	0.59	0.59	0.58	0.58	0.57	0.57	0.57	0.56	0.55	0.54
	18	0.62	0.62	0.61	0.61	0.60	0.60	0.59	0.59	0.59	0.58	0.57	0.56
	20	0.65	0.64	0.64	0.63	0.62	0.62	0.62	0.61	0.61	0.60	0.59	0.58
	22	0.67	0.67	0.66	0.66	0.65	0.64	0.64	0.63	0.63	0.62	0.61	0.59
	24	0.70	0.69	0.68	0.68	0.67	0.66	0.66	0.65	0.65	0.64	0.63	0.61
	25	0.71	0.70	0.70	0.69	0.68	0.67	0.67	0.66	0.66	0.65	0.64	0.62
	26	0.72	0.71	0.71	0.70	0.69	0.69	0.68	0.68	0.67	0.66	0.65	0.63
	28	0.75	0.74	0.73	0.73	0.71	0.71	0.70	0.70	0.69	0.68	0.67	0.65
	29	0.76	0.75	0.74	0.74	0.72	0.72	0.71	0.71	0.70	0.69	0.68	0.66
	30	0.77	0.76	0.76	0.75	0.74	0.73	0.72	0.72	0.71	0.70	0.69	0.67
	31	0.78	0.78	0.77	0.76	0.75	0.74	0.73	0.73	0.72	0.71	0.70	0.67
	32.82	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.75	0.74	0.72	0.72	0.6904

Mogas = +/-US\$2  
more than crude oil

Ethanol Price 27.6.2003 69.04cpl



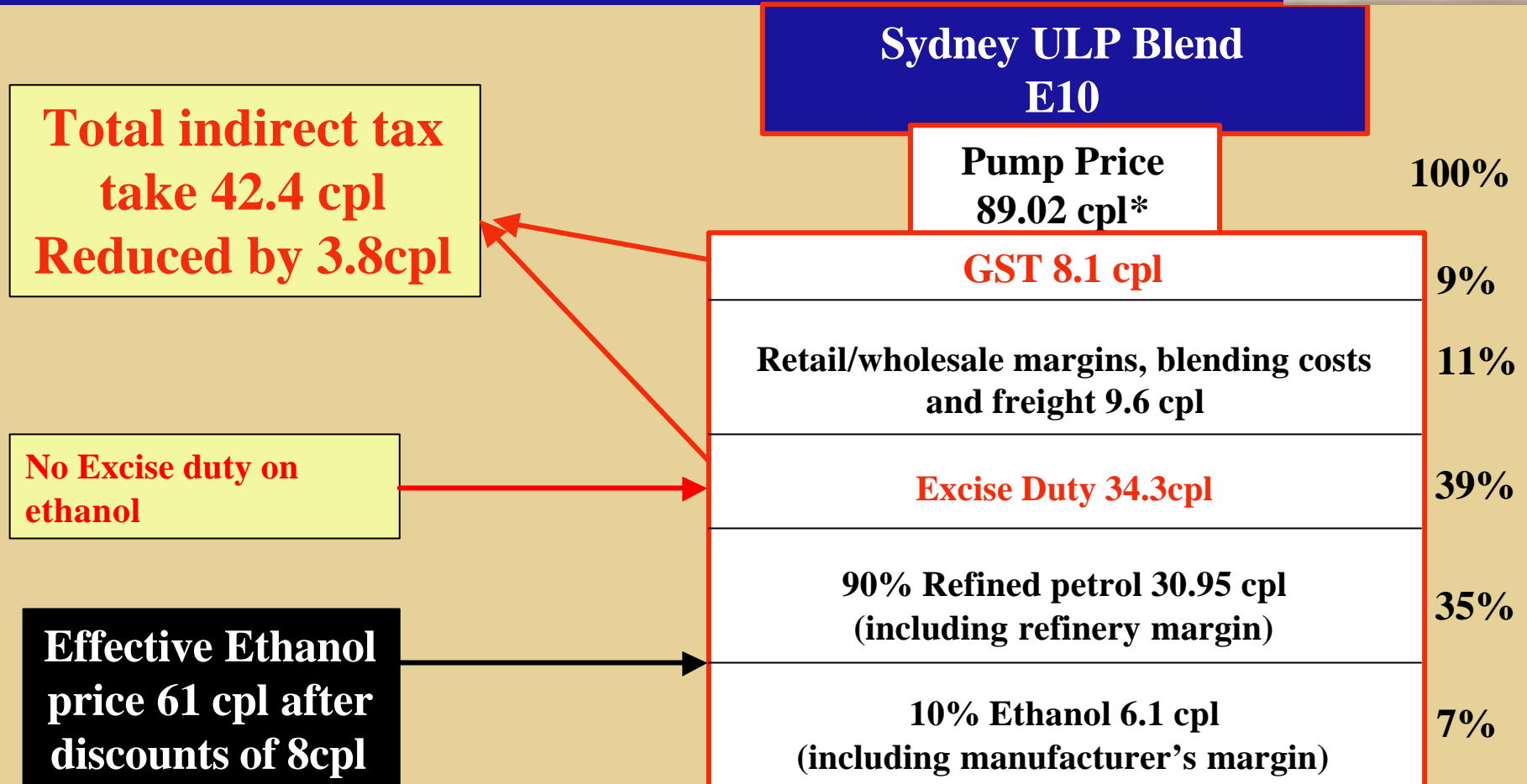
# A snap shot on a chosen day Sydney ULP on 24 June 2003



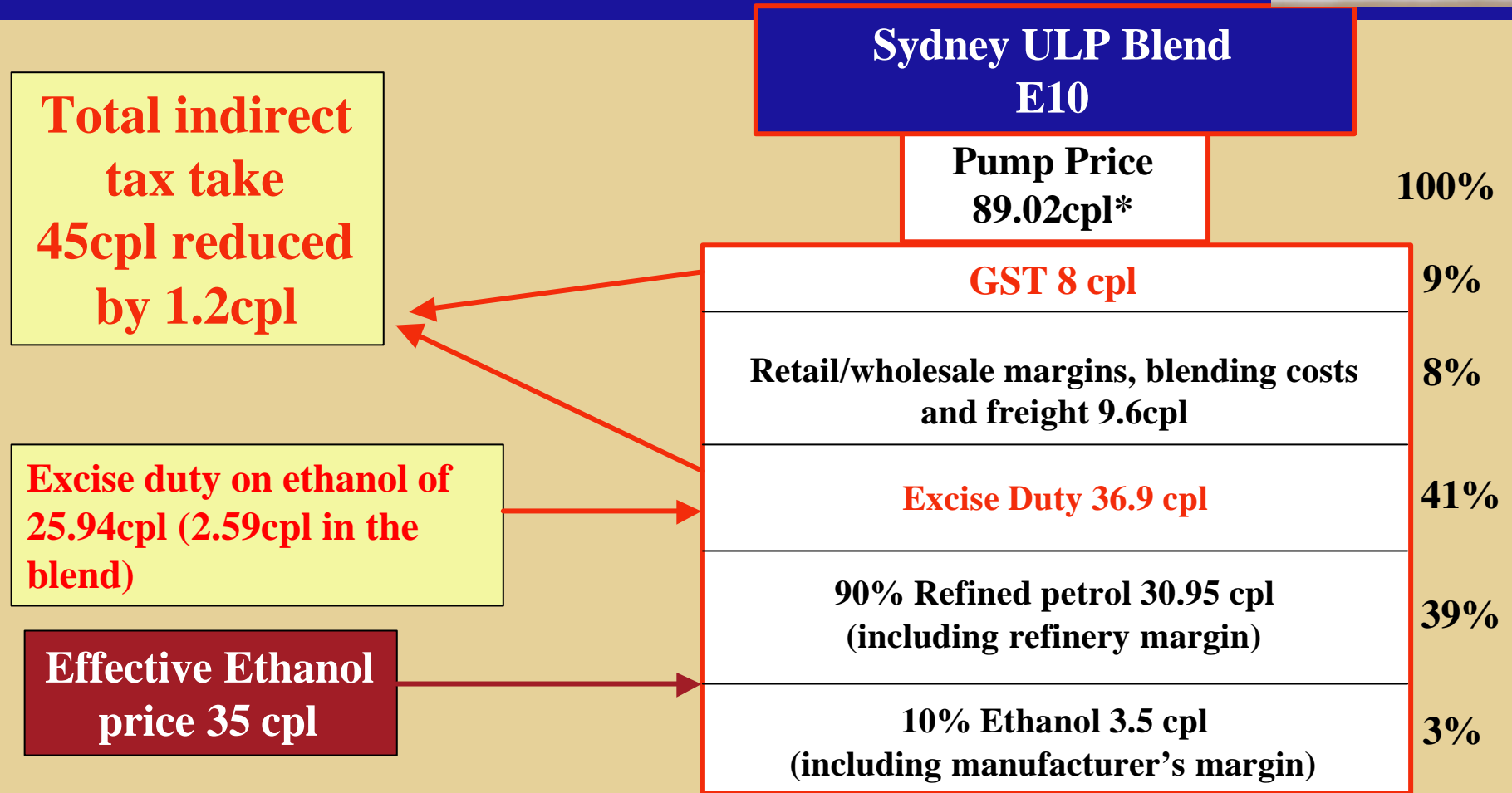
\*price incl GST- [www.caltex.com.au/pricing](http://www.caltex.com.au/pricing)

PricewaterhouseCoopers

# A snap shot on a chosen day Sydney ULP/blend on 24 June 2003



# A snap shot on a chosen day producer pays excise duty of 25.94cpl?



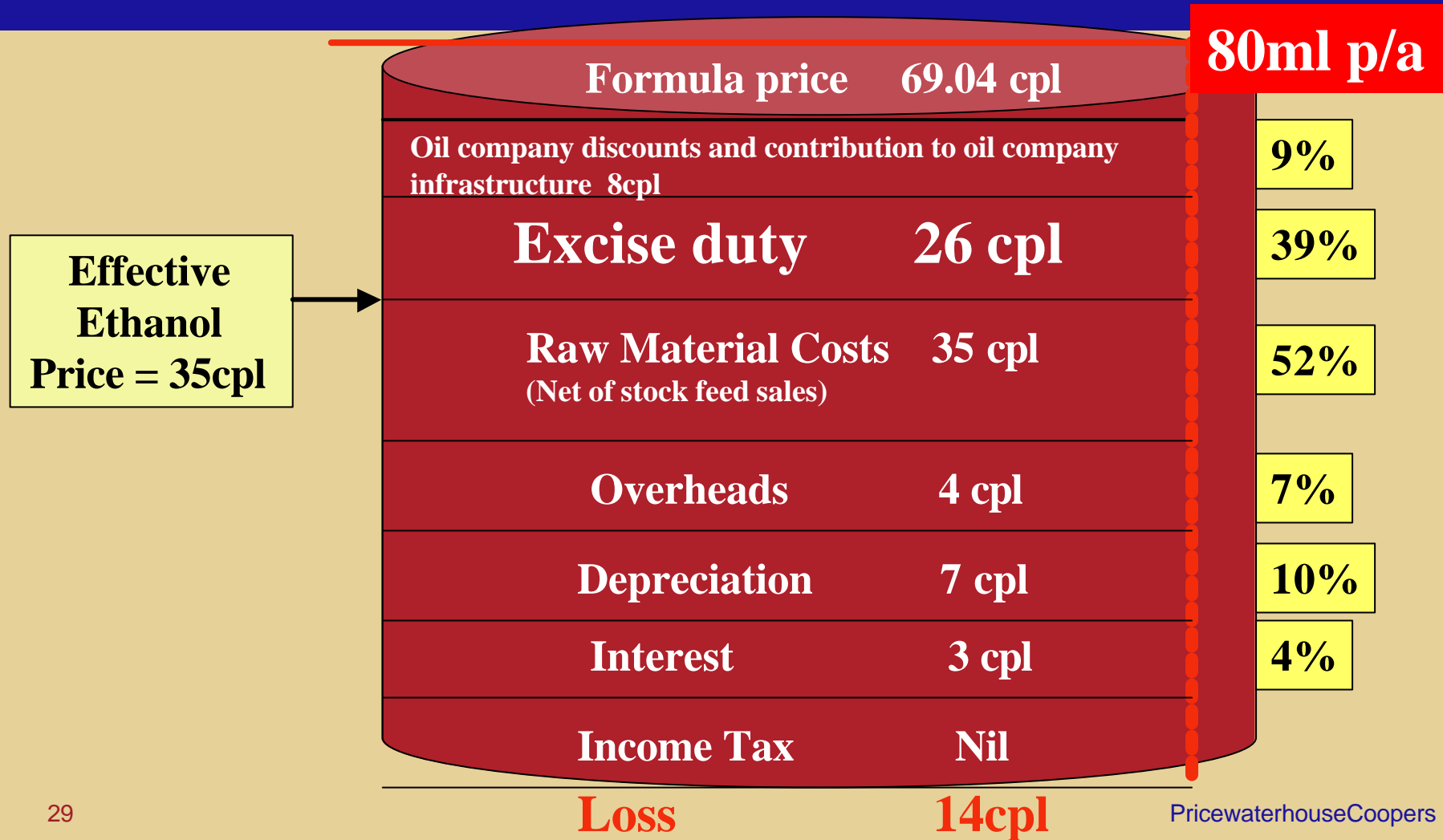
27 \*Excise duty on ethanol not passed on to consumer

# If we were in the Ethanol Business today\* - Zero Excise



\* Calculated as at 24 June 2003 excl GST

# If we were in the Ethanol Business today We carry excise duty of 25.94 cpl



# The Ethanol Debate- its about \$133m p/a to reach the Govt target of 350ml p/a

**\$133m p/a reduced excise duty (Govt Target of 350ml of renewable fuel × 38.14cpl) + \$50m capital grant paid in Yr 1 & 2**

**Crop substitution - use of drought resistant crops - reduced reliance on irrigation**

**140 jobs in country towns  
6×flow on jobs**

**R&D into fuel technology – spin-off industry**

**Ethanol policy consistent with major trading partners USA and Canada**

**Strategic Fuel resource**

**Import replacement**

**Price stability for grain farmers**

**Taxes paid by ethanol plants and employees**

**Regional Development – Private Investment \$395m**

**Is it green as well?**

# Revenue Benefits of Ethanol Industry

## 350ML by 2010

### GOVERNMENT REVENUE FROM ETHANOL INDUSTRY

- Regional Development:  
Jobs & Tax; \$59m  
(not including construction)
- Company Tax from Octane value; \$42m
- Environment  
GHG; \$14m  
Clean Air; \$58m

TOTAL \$173m



### COST TO GOVERNMENT

- Producers Subsidy; \$133m

**A detailed paper titled “Revenue Balance for Fuel Ethanol” is attached at the end of the presentation**

# Revenue Benefits of Ethanol Industry

## 350ML by 2010

- Costed Benefits; \$173m
- Other Benefits (not costed)
  - Health \$???
  - Regional capital investment
  - Farm stability
  - R & D initiatives
  - Reduced imports of oil
  - Energy security
  - Compatible with fuel cells
  - Increased competition in fuel market
  - Renewable vs unsustainable fossil fuel



### COST TO GOVERNMENT

- Producers Subsidy; \$133m

**A detailed paper titled “Revenue Balance for Fuel Ethanol” is attached at the end of the presentation**



# What do we want?

# ACE

Australian Coalition for Ethanol

Zero excise on renewable fuel for 10 years  
from our commissioning date

A market plan that makes commercial sense after 10  
years

The capital grant implemented

A positive market environment for ethanol blends

How do we get it?

**ACE**

Australian Coalition for Ethanol

## **Zero Excise**

- (a) Increase fuel excise by 0.5cpl**
- (b) Link excise to crude/exchange rate**
- (c) Devise a mechanism after 10 years to stay in business**

# How do we get it?

# ACE

Australian Coalition for Ethanol

A positive market environment:

- (a) Oil companies remove all anti-ethanol references
- (b) All stakeholders endorse renewable transport fuels
- (c) Federal Govt makes an immediate announcement of participation in a major E10 trial.

Immediately announce capital grant guidelines and eligibility criteria.

# Conclusion

# ACE

Australian Coalition for Ethanol

**Because what you've offered won't  
work ...**

**... what you've promised will !**

**ethanol**  
Fuel For Clean Air



Thank you

TJA  
The Jacobs Group, Inc. 2001