

Caltex Talkingpoint

CALTEX BIOFUELS – HOW WE'RE HELPING THE PLANET

- Caltex believes that biofuels may play a significant role in reducing greenhouse gas emissions and providing long-term solutions to climate change.
- Caltex sells Bio E10 Unleaded, a petrol blend containing 10 per cent ethanol. We also sell biodiesel blends, mixtures of regular diesel and biodiesel typically blended at ratios of two, five and 20 per cent.
- From a small base four years ago Caltex's biofuels business has grown into an enterprise selling about 750 million litres of biofuel blends in Australia in 2007.
- Over 200 sites in the Caltex network now sell Bio E10 Unleaded – 114 in New South Wales, 85 in Queensland and six in the ACT. The network is still expanding and the proportion of E10 in total petrol sales at these sites is growing.



- New Generation Diesel, which contains two per cent biodiesel, is the only diesel supplied from Caltex's Newcastle terminal. The supply of this fuel from Newcastle to over 150 service stations saves our customers about 20 thousand tonnes of carbon dioxide emissions each year.
- Caltex sells B5 (a blend of five per cent biodiesel) and B20 (a 20 per cent blend) to mining companies, commercial truck and bus fleet customers in Western and South Australia, Queensland and New South Wales.
- Caltex met its target for sales under the former federal government's Biofuels Action Plan in 2006 and will exceed the 2007 target by 50 per cent. The Action Plan has a combined industry target of at least 350 million litres of biofuels blended into the fuel mix by 2010, a policy supported by Caltex.
- Caltex is investing millions of dollars in terminals and blending facilities to support projected future growth for the biofuels industry. For example the Sydney and Brisbane terminal ethanol infrastructure projects that will be completed in 2008 will each cost around \$2.3 million.

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HOW BIOFUELS HELP THE ENVIRONMENT

- Biofuels are renewable fuels made from plant or animal products or by-products
- E10 refers to a biofuel blend made up of 90 per cent unleaded petrol with 10 per cent ethanol. Ethanol is currently produced in Australia from wheat starch and molasses and overseas from corn and sugar cane.
- Life cycle greenhouse gas (GHG) emissions of biofuel blends combine the emissions from growing crops or producing and refining crude oil through to burning the blend in a vehicle.
- GHG emissions can be reduced by one to four per cent when using E10, in comparison with regular unleaded petrol on a life-cycle basis. In future, savings of seven per cent may be possible using different plant materials and technologies to process them.
- Use of E10 results in lower tailpipe emissions of chemicals such as carbon monoxide, benzene and butadiene but higher levels of aldehydes. There appears to be little overall effect on smog and a government study is researching the effect on fine particle emissions.
- E10 is suitable for use in most new and many older cars, utes and vans without affecting the manufacturer's warranty.
- Biodiesel is a biofuel made from renewable materials such as tallow, canola oil, used cooking oil or palm oil which typically is blended into diesel at ratios of two, five and 20 per cent, depending on the type of customer.
- A two per cent biodiesel blend can reduce greenhouse gas emissions by 1.5 per cent compared with unblended diesel, assuming the biodiesel is made from tallow. The reduction for a five per cent blend is 3.7 per cent and the reduction for a 20 per cent blend is 15 per cent.
- Biodiesel made from palm oil sourced from existing plantations offers similar greenhouse gas emission savings to tallow-based biodiesel. However, imported palm oil sourced from cleared rainforest or peat swamps would greatly increase greenhouse gas emissions.
- Biodiesel blends produce lower tailpipe emissions of carbon monoxide and fine particulate matter than 100 per cent petroleum diesel. However, oxides of nitrogen (which help create smog) may be increased slightly.
- Caltex New Generation Diesel containing two per cent biodiesel is suitable for all diesel vehicles. Up to five per cent biodiesel is generally considered suitable in all diesel engines and higher percentages may be approved by some manufacturers.



Sugar cane is a feedstock for ethanol production

Do you have any comments on this Talkingpoint? Please email feedback@caltex.com.au.