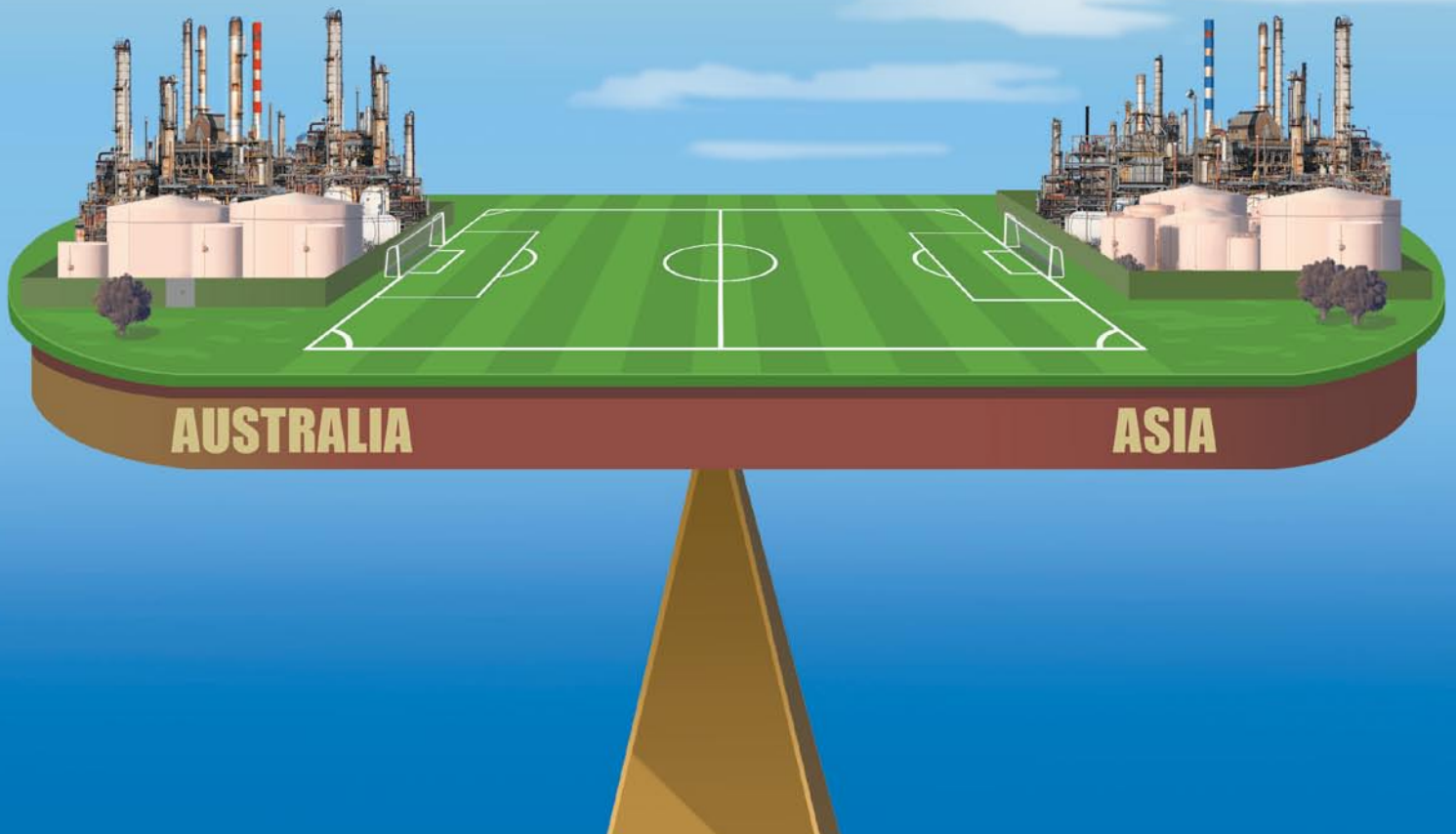


# THE STAR

CALTEX'S MAGAZINE FOR EMPLOYEES, FRANCHISEES,  
RESELLERS AND THE WIDER WORLD  
ISSUE 44 / AUG – SEP 08

## Emissions trading why Australian refineries need a level playing field





## From the Managing Director

As you will probably have heard, the government has released its proposals for an Australian greenhouse gas emissions trading scheme to start from 2010.

The scheme will require about 1,000 businesses including oil refineries to buy permits for their emissions. Most permits will be auctioned by the government, but some "emissions-intensive trade-exposed" industries will receive free permits to help maintain their international competitiveness.

Caltex is deeply concerned that some industries, including oil refining, are currently not defined as emissions-intensive trade-exposed so will receive no free permits.

Unless the proposal is modified, our refineries will face high extra costs that can't be recovered from customers, because our international competitors that sell petroleum products into Australia, such as big Asian refineries, will bear no carbon costs for many years.

In addition to the permits that Caltex must purchase for its own emissions, mainly from refining, the Australian government's Carbon Pollution Reduction Scheme will require liquid fuel suppliers like Caltex to purchase permits for their customers' greenhouse gas emissions then pass on the cost at the pump.

However, prices to motorists will not increase for at least three years because excise will be reduced "cent for cent" to offset carbon costs. The price of carbon permits for petroleum products must be highly transparent and must be exactly matched to the excise reduction to assure motorists they are not being overcharged for carbon costs.

As we discuss in this issue of *The Star*, we seek no special treatment and believe our refineries can be competitive in a carbon-constrained world.

Caltex supports the introduction of an emissions trading scheme for Australia and other strategies to reduce greenhouse gas emissions – but they must provide a level playing field for oil refineries against overseas competitors.

*Des*

Des

COVER: Australian refineries compete with petroleum product imports from Asia – but to remain competitive the design of Australia's emissions trading scheme must maintain a level playing field.



## LPS at work

What started with an LPS investigation into spills at Caltex terminals has finished with a new leading edge technology component that will be used in fuel tankers around the world.

It's a story that National Operations Manager (Terminals and Pipelines) Paul O'Loughlin and his team are proud to tell. Back in March 2007 after a spate of spills involving contractor vehicles loading at Caltex terminals, the Terminal Operations group conducted a workshop at Newport terminal to review the causes identified in LPS investigations.

Evidence pointed to the vehicle overfill systems. The team shared their findings in a series of workshops with firms that supplied transport, maintenance and equipment for the terminals, inviting them to help devise solutions.

Closer testing revealed shortcomings in a device on tanker trucks that is meant to shut off the system when the tanker is full. The component, an overfill probe extension, was often tripping too late and its settings could not be easily verified. What's more, when the probes were being replaced the practice was simply to line the new one up against markings made on the old one without reference to calibration charts or manufacturer's settings.

As a result of ideas generated at the workshops, a leading manufacturer was asked to design a new overfill probe device that could be easily set and verified and would be linked to correct settings listed on a vehicle compliance plate located near the probe. A number of meetings and design changes later, the final product emerged: a probe that enabled self diagnosing through a laser edged trip point setting that could be easily reconciled back to the compliance plates.

The new tanker truck barrel overfill probe was launched in February. It is now being copied by other suppliers and marketed in Europe, Asia and the Middle East. Its effect at Caltex terminals has yet to be measured, but Paul reports that other ideas developed at the workshops in 2007 have led to a 37 per cent reduction in spills relating to terminal equipment and a 50 per cent reduction in spills associated with contractor vehicles.

Australia needs a level playing field for carbon emissions from oil refineries! That's the message from Caltex in response to the government's green paper on an Australian greenhouse gas emissions trading scheme, which will start in 2010.

# Emissions why australian

## Refineries could be less competitive

About a quarter of Australia's petroleum products are imported, mostly from Asian refineries. Australian refineries must compete against these imports so prices for refined petroleum products are based on the cost of importing, known as import parity.

From 2010, Australian refineries will bear a "carbon cost" through having to purchase permits for their greenhouse gas emissions. Most of their international competitors will not have to bear such costs for many years because the countries in which they are located will not have emissions trading schemes. Australian refineries will have to absorb the carbon costs from Australia's Carbon Pollution Reduction Scheme because their refinery gate prices are set at parity with the imports from these countries without carbon costs.

If the scheme is implemented as proposed in the green paper, Caltex's two oil refineries

could in total face extra costs of around \$90 million per year (at a carbon cost of A\$40 per tonne of carbon dioxide emitted). This means Caltex and other Australian refineries will be much less competitive against imports from Asian and other overseas refineries. Caltex believes the scheme should be designed to avoid this loss of competitiveness.

Nothing will be achieved if a badly designed scheme results in Australian production of petroleum products being replaced by imports. There will be no global environmental benefit and Australia will lose skilled jobs, investment and technology. Greenhouse gas emissions will simply be created in Asia instead of Australia. And Australia's security of supply of petrol, diesel and jet fuel will be seriously weakened.

### **Caltex must buy permits for customers' emissions ... then pass on the cost**

In addition to the permits that Caltex must purchase for its own emissions, mainly from refining, the Carbon Pollution Reduction Scheme will require liquid fuel suppliers like Caltex to purchase permits for their customers' greenhouse gas emissions then pass on the cost at the pump. This means that Caltex will be the largest purchaser of carbon permits in Australia, approaching 10 per cent of the market. The four major oil refining and marketing companies will purchase over



From 2010, facilities like Caltex's Kurnell refinery will need permits for carbon emissions

# ns trading refineries need a level playing field

25 per cent of the permits available, mainly for their customers' emissions. Caltex believes the design of the scheme should avoid imposing high risks and costs on fuel suppliers for the purchase of permits to cover customers' emissions. The scheme should also provide for large customers to purchase their own permits for emissions from liquid fuels.

The scheme as proposed in the government's green paper will do very little in the near term to cut the annual 115 million tonnes of carbon dioxide emissions from Australia's use of petroleum products, because the carbon cost at the pump will be offset "cent for cent" by a reduction in excise, at least initially.

The full excise offset means there will be no incentive to reduce petroleum consumption.

There is public concern over high fuel prices and a Petrol Commissioner has been appointed to monitor fuel prices. The price of carbon permits for petroleum products must be highly transparent so motorists can be assured they are paying "cent for cent" at the

pump the same carbon cost that oil companies pay for the motorists' permits. Caltex does not want oil companies to be regarded as profiting from the Carbon Pollution Reduction Scheme. The scheme must be designed to ensure the price paid by oil companies for permits is exactly matched "cent for cent" to the excise reduction to assure motorists they are not being overcharged for carbon costs.

The scheme is also unlikely to have much longer term impact on consumption of petroleum products. A carbon price of \$40 per tonne of carbon dioxide – 10 cents per litre of petrol – is estimated to reduce carbon emissions from transport fuels by about three to five per cent, far short of what's required to meet Australia's long term target of reducing total emissions by 60 per cent in 2050 relative to 2000.

So if the emissions trading scheme will not substantially reduce emissions from transport, what will? The answer is a gradual shift in fuel consumption from conventional hydrocarbon

fuels like petrol and diesel to electricity and alternative fuels (see following story). Refined petroleum products will be around for decades but Australia's production of petroleum products is already less than demand, hence the growing level of imports. Alternative fuel sources with lower carbon emissions can replace some of these refined product imports. Long term shifts in fuel supply will also create new business opportunities.

### **Risk to emissions-intensive, trade-exposed industries**

Australia has many industries that are emissions-intensive and trade-exposed, so-called EITE industries, including oil refining. Emissions intensive means the costs of their carbon emissions under an emission trading scheme will have a material impact on their cost structure and profitability. Trade exposed means they can't pass on carbon costs to customers because of import or export competition. >





TOP: Singapore oil refineries will not bear carbon costs  
BELOW: Caltex refineries could face costs of \$90 million a year for carbon emission permits



> Most of these industries could remain competitive in a carbon-constrained world if there was a level playing field, so that carbon costs for Australian industries increased in line with overseas competitors. However, by imposing a tight cap on its emissions ahead of competitor countries, Australia may create a price for carbon that makes many EITE industries uncompetitive. This process of imposing carbon costs and effectively shifting emissions and industries overseas is known as carbon leakage – and it makes no sense for Australia.

How has the government ended up in the situation of imposing large costs on the exporting and major import-competing manufacturing industries that underpin Australia's prosperity?

## The permits problem

For the answer we need to look at the way the green paper proposes permits should be issued. Emissions-intensive trade-exposed industries, excluding agriculture, will account for about 40 per cent of the emissions covered by Australia's emission trading scheme. However the government has decided that only 20 per cent of permits for these emissions will be allocated free to EITE industries and the other 20 per cent will have to be purchased. This means free permits will only be half the number required to create a level playing field against imports.

This 20 per cent allocation is even more inadequate than it may immediately appear, as many industries including oil refining are not defined by the green paper to be emissions intensive so would receive no free permits at all.

## Flawed equation

Anyone who has been to an oil refinery and seen the huge amounts of energy consumed

in heaters, compressors and pumps would realise they are energy intensive, hence emissions intensive.

The problem lies with the way the green paper defines emissions intensity: emissions divided by revenue, which is the total value of petroleum products and includes crude oil purchase costs. Most people would understand revenue to mean the dollars received from turning crude oil into petroleum products (which in oil industry jargon is the gross refiner margin). Revenue as defined in the green paper is the wrong measure. It would be more appropriate to measure the financial impact of carbon costs by measures such as emissions divided by value added (equal to earnings before interest, tax and depreciation, plus employee costs). Other emissions intensity criteria related to financial impact may also be appropriate.

Some people might argue that carbon costs on refining are necessary to create incentives to improve energy efficiency and reduce greenhouse gas emissions. However, the high cost of energy today creates a huge incentive for Caltex to cut carbon emissions, so adding more costs through having to buy emission permits would not create any additional incentive. Annual fuel costs at Caltex's refineries are about \$400 million out of total costs of about \$800 million. Carbon costs would amount to a huge new tax on Australian oil refineries.

## Creating a level playing field

Australia can take an international leadership position in policies to reduce carbon emissions but until there is global commitment to emissions reduction Australia's emissions reduction trajectory should be modest to ensure a low carbon price.

Oil refining is a tough, competitive business with low average margins in which the key to success is controlling costs. Australian oil refineries are competitive with overseas counterparts but even low carbon prices would have a significant impact on competitiveness.

The emissions trading scheme must maintain the competitiveness of Australia's emissions-intensive trade-exposed industries until overseas countries take comparable action on carbon costs for their industries. Carbon costs on Australian refineries should not increase faster than for overseas competitors.

## THE CARBON POLLUTION REDUCTION SCHEME – WHAT IS IT EXACTLY?

The Australian Government has released a green paper containing policy options for an Australian greenhouse gas emissions trading scheme known as the Carbon Pollution Reduction Scheme. It will start in 2010 and require about 1,000 of the largest emitters of greenhouse gases ("carbon emissions") to purchase permits for their emissions.

The government will set a limit on the number of permits available which will reduce over time to achieve national targets (the "emissions trajectory"). As the number of permits made available will be less than emissions, this will create a price for carbon and encourage investments to reduce emissions.

Most permits will be auctioned by the government but some industries will receive free permits to help maintain their viability against overseas competitors from countries that do not have emissions trading schemes.

Fuel suppliers will have to purchase permits for the emissions from customers' fuel use then fully pass on the cost to consumers. However, prices to motorists will not increase for at least three years because excise will be reduced "cent for cent" to offset carbon costs.

Final policy decisions and draft legislation for the Carbon Pollution Reduction Scheme will be released in December 2008.

In practice, this means an initial 100 per cent free allocation of permits to emissions-intensive trade-exposed industries with a formula for eligibility that realistically measures the financial impact of carbon costs and achieves broad industry eligibility. Once overseas competitors have comparable carbon costs so there is a level playing field internationally, all permits can be auctioned.

Caltex seeks no special treatment. Its refineries can be competitive in a carbon-constrained world and help maintain Australia's security of supply of petroleum products. Caltex supports the introduction of an emissions trading scheme for Australia and other strategies to reduce greenhouse gas emissions – but they must provide a level playing field for oil refining and other emissions-intensive trade-exposed industries. ●

# What are our options to reduce emissions?

Cars that run on hydrogen and emit only water from their exhausts and electric vehicles recharged using renewable electricity. These future options are real, and can help ensure a low-carbon future.

**Twenty per cent** of Australia's greenhouse gas emissions come from the use of liquid fuels including petrol, diesel and jet fuel. The government's Carbon Pollution Reduction Scheme aims to reduce greenhouse gas emissions from all sources by 60 per cent in 2050 compared with levels in 2000. Trying to reach this target will be a huge challenge for Australia, affecting everyone who drives or uses transport.

Reducing reliance on fossil fuels (including oil) means all fuel users must cut usage of conventional petroleum products over the next 40 years and gradually replace them with low-carbon, sustainable forms of energy.

Even in 2050, oil refineries are still likely to provide substantial volumes of conventional liquid fuels. But alternative, lower carbon energy sources will help meet the growing demand for fuel across the Australian economy and reduce fuel imports.

We are already seeing the start of this shift with mass-produced petrol-electric hybrid cars, which will lead the way to vehicles that rely partially or completely on renewable, mains-based electricity. Alternative liquid fuels with a smaller carbon footprint will also play a role, and will include biofuels from sustainable feedstocks, synthetic petrol and diesel and

hydrogen. Natural gas and LPG are already used as transport fuels.

These technologies will be made more economic by higher oil prices as conventional crude oil sources fall short of demand. Already, billions of dollars are being invested by vehicle manufacturers globally to avoid being left behind in the race for new technologies. Billions more are being invested by energy companies in ways to make new forms of liquid fuels and construct plants to produce them.

Let's take a closer look at what will drive the changes required to make deep cuts in emissions:

## Higher oil prices

It's not what people want to hear, but it's a basic law of oil supply and demand. The days of cheap oil are over and one of the major drivers for reducing fuel consumption and thus emissions is higher prices. Carbon costs on fuel will add to the emission reduction incentives already created by high oil prices. However, more efficient vehicles will cut the impact on household budgets.

## Better designed cities and transport systems

Australian federal, state and local governments can help reduce fuel demand by designing

cities better to reduce the need to travel, improving public transport, providing financial incentives to use roads more efficiently and improving freight infrastructure.

If carbon costs are imposed, lower carbon transport alternatives need to be available so people can change their behaviour.

## New vehicle and fuel technologies

Technology advances offer the greatest potential for reducing emissions over the next 40 years. The *Talkingpoint* in this issue of *The Star* explains that vehicles with internal combustion engines fuelled with petrol and diesel are becoming much more fuel efficient, and they'll continue to become more economical. But vehicles will shift gradually to using less petroleum products and more electricity from coal or gas-fired power stations with carbon capture and storage, or from renewable electricity sources such as wind or solar.

Petrol-electric and diesel-electric cars and commercial vehicles are already being produced. Over time, the internal combustion engines in hybrids will become smaller and their electric motors larger. "Plug-in" hybrids will recharge with mains electricity, and pure electric vehicles seem likely. ●

Diesel-powered vehicles have lower carbon emissions



## WHAT YOU CAN DO NOW

There are simple steps everyone can take to save fuel and reduce the amount of carbon being released into the atmosphere. Here are some Caltex suggestions:

### Try to use different transport options

Not always easy, but the surest way to save fuel and money. Share rides and ask yourself whether any planned car trip is really necessary. Try to take public transport, walk or cycle.

### Buy a smaller car

Smaller cars are well designed, economical and have adequate space. And these days many have the same safety features as bigger cars.

### Consider diesel, LPG and biofuel blends

Diesel and LPG-powered vehicles have lower carbon emissions than those that run on petrol. Green vehicle guides compare the fuel consumption of different vehicles. Petrol and diesel blended with ethanol and biodiesel also reduce carbon emissions.

### Service your car regularly

Engines that are well maintained use less fuel. Dirty air filters, for example, restrict the flow of air to the engine and increase fuel consumption.

### Accelerate smoothly

The smoother you can accelerate through the gears, the better fuel consumption you'll get. Accelerating hard and then braking is a fuel waster.

### Maintain a constant speed

Constant overtaking and braking wastes fuel. Stick to the correct lanes and keep gear-shifting to a minimum. Accelerate and brake gently.

### Check tyre pressures

Underinflated tyres increase fuel consumption because your engine works harder to propel the car forward.

### Clean out your car and boot

Ferrying extra weight around adds to fuel consumption.

# Getting the jump on thieves

A man enters the Caltex Star Mart on Scarborough Beach Road in Perth at 1.30am and takes two soft drinks from the fridge. After placing them on the counter, he pulls a red beanie with eye holes cut out over his face. With a screw driver in one hand and a knife in the other, he demands money. The customer service attendant places cash and the drinks in a bag and the man flees.

**It's a depressingly** familiar incident in the 24/7 fuel and convenience retail business, but in Caltex stores it's becoming a lot less common.

Thanks to a program of preventive security measures designed to protect staff and property, Caltex-operated convenience stores (Calstores) have experienced a marked decline in robberies and drive offs over the past year.

Initiatives like new night operations policies, safety pendants, anti-jump wires, night windows, bollards in front of ATMs, security door procedures and "Intellivend" smart safes for handling cash are drastically reducing the incidence of hold-ups, according to National Manager Retail Leo Pucar.

"We've had recent cases where robbers were so frustrated they left the site because it was all too hard," says Leo.

The bollards installed last year along the shop-fronts of Caltex stores are a good example of how well the policy is working. Their aim was to deter smash-and-grab thieves who drive into shop fronts, seize ATMs and load them into vehicles before driving off.

Since the bollards were introduced there hasn't been a single successful smash-and-grab at Caltex-operated sites, according to Calstores Operations Manager Craig Beck. "All of these moves are designed to improve safety of staff," he says. "They've worked extremely well – our incident rates are now much lower than those of our competitors."

Feedback from employees is they're understandably happy about the trend. "It shows we care about their safety," adds Craig.

Petrol theft is a separate problem which has obviously become more of an issue as prices have risen. But here, too, new measures are making a difference.

Each site now sends in details of drive-offs to a retail analyst at Caltex's head office. Information includes times, days and a watch list of cars and registration numbers to keep an eye out for. The information is collated and used by Calstores so staff can be extra vigilant at certain times.

"In New South Wales we targeted a decline in drive-offs of 25 per cent this year and have already seen a decline of 18 per cent, an excellent result," says Craig.

**"Since the bollards were introduced there hasn't been a single successful smash-and-grab at Caltex-operated sites"**

The additional security measures won't stop at Calstores. Caltex is sharing what it's learned with franchisees, who have an obligation as principal operators to ensure a safe working environment for their employees, says John Dulgarno, Retail Operations Manager.

"As franchisor we're committed to a culture of safety and loss prevention across our retail network," says John. "While franchisees have absolute discretion to choose safety and security measures to suit their businesses, Calstores are reporting significantly fewer security incidents than stores in our franchise network. So we encourage franchisees to be proactive when it comes to getting it right with security." ●

## MORE MEASURES, FEWER RISKS

Here are some of the initiatives helping to keep Calstores employees safe:

**Bollards.** Sturdy pillars along the shop-front and in front of ATMs prevent smash-and-grab bandits from seizing machines and driving off.

**Night drawers.** At night, after prescribed times, customers use the wall-mounted devices to pay for fuel and goods without coming into the stores.

**New operations timetables.** These show employees times at which store doors should be manually opened, then on full lock, after which they should not venture outside until relieved the next morning.

**"Intellivend" machines.** Introduced last year, these are safe-like devices between consoles into which customer service attendants place takings and which are opened only by Armaguard security people. They "read" notes and print out a report each day of how much money they contain. (A \$200 cash limit for tills also means less risk for staff.)

**Safety pendants.** Employees wear these round their necks for added peace of mind. The pendants have two buttons, one for opening and unlocking the front door when a staffer sees a customer approaching, another to send an emergency signal to the security company if there's an incident.

**Shields.** The newest measure currently being trialled in several stores is a counter shield for console areas. The movable polycarbonate screen is left open during normal business hours. After 8pm it's lowered three-quarters of the way down. After midnight it's lowered fully and staff serve customers through a chute.

Carmen Kutyla, Store Manager at Caltex North Adelaide, feeds the "Intellivend" machine









# Clearing the air at Kurnell

Trevor and Susan Davis have lived in Kurnell village for three years and like to get involved in their community. When they were invited to take part in an “odour audit” recently and learn more about the refinery on their doorstep, they seized the opportunity.

“The audit was a most interesting process,” says Susan who, with 12 other villagers including Trevor and members of Caltex’s Environment Protection Group (EPG), lent their noses in an exercise to help local people identify refinery-related smells. It was part of Caltex’s ongoing efforts to reduce its environmental impact and ensure its employees are better informed about odour emissions and how to tackle them.

“The audit was a good opportunity to reach out to the community and a good learning experience,” says Harden Erskine, Area Shift Manager at the Oil Movement Centre at Kurnell and one of the managers who responds to community complaints.

What exactly *is* an odour audit? It’s a process that started at the Odour Research Laboratories Australia in the Sydney suburb of Newington. The villagers – all volunteers – and six EPG members were assessed here to determine their sensitivity to smells.

In a six-hour session they underwent odour sensitivity and recognition training. They were presented with the standard “odorant” for such an exercise: n-butanol. They also sniffed three “sample” refinery odours taken from the biggest sources of smells, the oily water separators and two of the biggest stacks.

This helped “educate” the participating noses. The next step was to put their odour detection skills to work in an audit of the refinery.

## Finding the culprits

After inductions at the refinery, the residents took part in five audits. These took up to six hours each and involved walking around the streets of the refinery and neighbouring village. When they detected a smell, they stopped and wrote down the characteristics. Then in the refinery they tried to find the source.

The odours included rotten eggs, sulfur, oil, petrol and kerosene, some of which the audit teams could relate to sources. They





## BETTER AWARENESS THE BEST OUTCOME

From Caltex Refining's point of view one of the best results of the odour audit was the raising of awareness among personnel of the impact odours have on the community and how important it is to prevent their emission. The issue is being communicated at daily production meetings and during shutdowns.

Such progress was clear in the Kurnell refineries' latest annual report to the New South Wales Department of Environment and Climate Change. The report showed a 52 per cent reduction in the number of odour complaints compared with the previous year. It was the lowest number of complaints recorded since 2001/2002.



LEFT: Members of the Kurnell leak-detection team Jonathan Olup, Jerry Yin and Daniel Li hard at work keeping odours in check.  
TOP: Odour-audit team members (from left) Trevor Davis, Harden Erskine, Susan Davis and Emily Rowe

varied in strength and not all were considered sufficiently strong or offensive for a volunteer to initiate a call to the refineries Community Concerns Hotline.

**“Most residents accept they live next door to a refinery but expect Caltex to do what it can to minimise its impact”**

The residents identified the most significant source as the refineries' oily water separators which are part of the wastewater treatment plant. “The separators typically have oil odours and a smell like rotten eggs,” explains refinery environmental engineer Emily Rowe. The egg smell is caused by  $H_2S$ , a gas that can be produced in the refining process. It is easily detected by human noses at very low concentrations.

This was good news as the refinery was already designing new covers for the separator bays with new air ducting facilities to more effectively prevent odour release.

The refinery is now implementing a number of projects to ensure other odour sources are minimised. The old LPG odorant dosing facility has been replaced with a newer facility with better odour controls. A program for detecting volatile organic compounds emissions and initiating repairs is in its second year, having reduced emissions to air to a tenth of what they were previously estimated to be.

The refinery has also changed day-to-day operations to make odour prevention a key factor in how units are operated, shut down and started up.

“The program was a success,” says Emily. “We now get calls from our trained noses in the village pointing out certain odours. It's helping us identify sources more quickly and mitigate operational issues. For example, earlier in 2008

we had a major shutdown of Area 3 plant and the process was completed without one odour complaint.”

Most residents aren't hostile, adds Harden Erskine. They accept they live next door to a refinery, but do expect Caltex to do what it can to minimise its impact. “It's not perfect but we are trying,” he says.

### ‘It's getting better’

“The situation has got a bit better and Caltex have tried to improve things,” says Susan Davis, who lives in Captain Cook Drive close to the refinery boundary. “Like other residents we get most offended when the odours come into the house and we can't get away from them.”

To the community volunteers Caltex offered thanks and more. In exchange for their time the refinery made a donation to charities of their choice. The company paid \$7,500 in total to nine charities. ●



## CALTEX UPGRADES BIOFUELS FACILITIES IN TWO STATES

The commissioning of new biofuels blending and storage facilities at Caltex's Banksmeadow terminal in Sydney and Lytton terminal in Brisbane will help to ease constraints on Caltex supplying more Bio E10 Unleaded petrol to its networks.

"We will be able to offer more of our customers the choice of using a fuel that reduces greenhouse gas emissions and reliance on fossil fuels," Caltex Managing Director Des King said.

The new \$3 million facilities at Banksmeadow were officially opened in June by state Minister for Lands, Rural Affairs and Regional Development Tony Kelly.

Mr Kelly said he looked forward to rapid increases in Caltex's E10 sales to meet the New South Wales two per cent ethanol

mandate and to continued cooperation in developing a sustainable biofuels industry in the state.

At the Lytton fuel distribution terminal, a \$3 million biofuels upgrade was officially launched in August by the Queensland Minister for Tourism, Regional Development and Industry Desley Boyle.

Ms Boyle said the new facilities would help meet rising demand for ethanol blended fuel, particularly in south-east Queensland, and was another major step forward in the state's commitment to a five per cent ethanol mandate by 2010.

"The Queensland Government is working in close partnership with industry to grow the state's ethanol industry, with Caltex agreeing to buy at least 30 million litres of ethanol annually for three years from the new Dalby Biorefinery, due to open later this year," said Ms Boyle.



Bio E10 takes the cake. Biofuels Manager Mabelle Reyes and Operations Development Project Manager Peter Burns celebrate the Banksmeadow facilities opening. AND RIGHT: Des King (centre) and Tony Kelly talk to the media.

## PRECISION REPAIR JOB

Maintenance teams at the Lytton refinery in Brisbane faced a challenging exercise to replace the mid-section of a 27 metre steel column in June. But they achieved it within a tight deadline and without incident despite high winds and heavy showers.

The six-metre section of the stripper column on the refinery's diesel hydrotreating unit was replaced following corrosion problems.

It required the removal of the top and mid sections of the column along with all attached pipe work, electrical and instrumentation equipment, ladders, platforms and 30 internal trays.

The steel mid section was oxy cut off and replaced with a newly fabricated carbon steel cylinder 1.2 metres in diameter

with an overlay of two different grades of stainless steel. It was tricky precision work to lift the new seven-tonne section into place then fit and weld the top section back onto it.

**A crane manoeuvres the new centre section of the 27 metre high column into position.**







## CALTEX APPOINTS CLIMATE CHANGE MANAGER

Caltex now has a Manager Climate Change with the appointment in August of Fran van Reyk to the new role.

Fran is a civil engineer who has held senior management roles with Caltex Refining in engineering and major projects. She is enthusiastic about her new position as she admits to having "a bit of a passion" when it comes to the environment.

In announcing Fran's appointment, Caltex General Manager Strategy, Planning & Development, Mike McMenemy referred to her passion for the role, her strategic thinking capability, Refining expertise and project management experience.

"This is a major strategic issue for our company and I am delighted that Fran will lead the project to develop the enterprise's

response to the Government's Carbon Pollution Reduction Scheme," said Mike.

Fran will be working with colleagues from Refining, Marketing, Supply & Distribution, Government Affairs, Accounting, Operational Excellence & Risk IT, Treasury, Tax and Strategy, Planning & Development to meet Caltex's obligations to reduce carbon pollution.

She has received many encouraging comments from Caltex colleagues saying they are very pleased to see the company create such a role. But one of the biggest enthusiasts is her daughter Lauren, 9, who has been proudly announcing when she meets people that her mother's new job is "to help with climate change".

## HI-TECH RESEARCH HELPS MEET CUSTOMER NEEDS

People visiting a new-style Caltex '21CC' Star Mart convenience store may have noticed a fellow customer wearing what appeared to be a small camera lens strapped to his forehead.

They were witnessing high-tech market research. The forehead device is an eye tracking goggle that shows where the wearer's eyes are focusing as he walks around the store – what catches his attention, what routes he takes and where he becomes hesitant or confused.

This is all part of intensive qualitative research Caltex is doing on its new concept convenience store. In a trial which started just over twelve months ago, Caltex has opened six of these stores in NSW which have a different internal design and products on offer from existing standard Star Marts.

Consumer response to the new style stores is being researched in a number of ways, including the eye-tracking study, focus group discussions and other studies. It involved individual shoppers visiting 21CC stores, a standard StarMart and competitors' stores and comparing their shopping experience

The research is targeting consumer segments based on demographic (age, gender, profession) and psychographic (behaviour and needs) factors which studies have shown are most likely to prefer convenience store shopping.

The research results to date have been positive and are helping Caltex improve the 21CC store layout and product line before deciding whether to roll it out further through its 600-strong convenience store network.

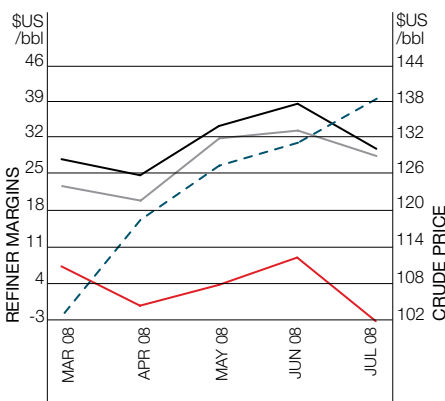
A '21CC' customer tests the new tracking device (Picture courtesy of the Nielsen Company)



## SHARE PRICE



## CRUDE OIL PRICE & SINGAPORE REFINER MARGINS



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**MARGINS**  
 — Petrol (95 ULP) (left axis)  
 — Jet (left axis)  
 — Diesel (0.005%) (left axis)  
 - - Tapis – crude oil price (right axis)

Tapis is the crude oil produced in Malaysia. The Tapis price is the benchmark for crudes in the region. The refiner margins for petrol, diesel and jet fuel are the differences between the Tapis crude oil price and the ex-refinery price in Singapore for the products.

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