

The Emissions Trading Scheme has been described as the biggest economic change in New Zealand since the market reforms of the 1980s.

Over time, the scheme will incentivise the big emitters to switch to more carbon-efficient technologies.

While householders will not be required to participate directly in the scheme, they will be affected – mainly through higher transport fuel and energy costs – as emitters pass on the costs of purchasing emissions units.

There are many relatively easy steps that householders can take to offset higher fuel and energy costs, as outlined in this issue. There will be some government assistance as well.

Kind Regards



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Fixing light bulb myths

Did you know that compact fluorescent lamps (CFLs) aren't the only type of energy saving light bulbs available? Or that the range of energy saving lighting choices is growing all the time – including, for example, dimmable lights?

Had you heard that CFLs do not, in fact, contain dangerous amounts of mercury, and that other energy saving bulbs don't contain any mercury at all?

These statements are true – but many people believe otherwise, as the merits of energy saving bulbs, particularly CFLs, are widely debated in the media.

The Energy Efficiency and Conservation Authority (EECA) is keen to explain the misconceptions about energy saving lighting.

"It's about giving people confidence that they've got a range of efficient, safe and environmentally friendly lighting choices," says EECA's Terry Collins, Manager Products.

From November next year, the most common old-style bulbs will start to disappear and CFLs will have to meet quality and efficiency standards to be sold. "This is about getting rid of the worst products on the market, that waste energy," he says. "But no bulbs will be phased out unless there are good alternatives available to replace them."

CFLs provide significant energy savings and can last 8-10 times as long as old bulbs, although there are other new alternatives as well, Terry says.

"For example, new generation halogen incandescent light bulbs look the same as traditional bulbs and do not contain mercury, but they use 30 per cent less energy, last twice as long, and glow just as brightly. They can also be used with dimmers.

"They are already available in some shops, and by November 2009 they should be widely available," he says.

CFLs emit light differently to old style bulbs, leading to the misconception that they aren't as bright. "This is about getting the right light for the job," Terry says.

CFLs do contain a small amount of mercury – an average of about 3.2 mg per bulb, equivalent to the size of a ball on a ballpoint pen and more than



> Spot the difference: the bulb on the left is a covered CFL, the other is a new generation halogen incandescent.

100 times less than in a thermometer. It's decreasing all the time and some already contain less than 1 mg per bulb.

There is no need for dramatic clean-up steps if a bulb breaks, he says. "Follow the government's clean-up guidelines and there is very little risk. Ventilate the area, wear gloves to protect yourself from the broken glass, and don't vacuum as it can disperse mercury – pick up small pieces with a damp paper towel."

Energy saving bulbs pose no greater fire risk than standard bulbs, Terry says. "Any electrical product carries a small risk of fire, but CFLs are no greater risk than any other bulbs.

"Also, it's quite normal for CFLs to discolour or blacken a little at the base, and even emit a little smoke, at the end of their life."

For detailed information on choosing the right energy saving lighting, see EECA's efficient lighting brochure at www.energywise.govt.nz

For the latest CFL clean-up guidelines, visit www.mfe.govt.nz/publications/waste/disposal-household-lamps-mar07/

Turning muck into brass

Timaru, in the heart of the South Island, is a town proving itself as a true national leader in waste disposal.

Timaru was the first council to introduce a three-bin kerbside collection system, taking organics, recyclables and general rubbish in separate containers.

As a result, between 60–69 per cent of the previous volume of kerbside waste has been diverted from landfill. The life of the town's only landfill, estimated at 15 years in 2006, is now expected to be around 38 years due to the three-bin system and other initiatives.

Other, larger cities like Christchurch are now bringing in three-bin kerbside collection, no doubt influenced by Timaru's success.

All the organic waste is being turned into compost at a purpose-built plant, generating income from compost sales.

Timaru District Council Solid Waste Manager Brian Gallagher acknowledges that councils face a big up-front cost in purchasing and distributing the bins. But that was more than offset by the landfill space savings – estimated to be worth \$30 million over 30 years for Timaru – plus income from compost and recyclable materials.

"We used to put about 53,000 tonnes a year into our landfill – this year it took just 31,000 tonnes," he says.

"If you put the right infrastructure in place, with a simple collection system, there's no reason why you can't divert 60 to 70 per cent of waste that previously went to landfill."

Pressure on the landfill provided the initial impetus for the new collection system, combined with community expectation – "the feedback was that we can't go on the way we are. The public wanted things to change."

In 2005 the Council trialled a three bin system with 100 households around the district. Each house got a 240-litre wheelie-bin for garden and food waste, collected weekly; as well as another 240-litre bin for recycling and a 140-litre bin for general rubbish – these were collected on alternate weeks.

Strong support from trial participants led to the council extending the system to all households in 2006.

Following agricultural field trials, the compost is now being sold. "Interest is growing – with increasing fertiliser prices, farmers are looking for alternatives," says Brian. "We are confident that we will sell it all."

The Council is now targeting commercial and industrial waste. "Half the waste being landfilled now comes from the business sector," says Brian. "We expect to get 50 to 60 per cent diversion of that waste stream as well."

"The next step then is for the Council to ban recyclable and compostable materials from the landfill. The ultimate goal is zero waste to landfill by 2015."



> Coming along nicely: piles of organics decompose into compost at the Timaru District Council's Redruth site.

↘ Emissions trading – reducing household impacts

There are several simple steps that householders can take to reduce the cost impacts of the Emissions Trading Scheme – and get health benefits into the bargain.

Under the scheme, which became law last month, carbon emitters covered by the scheme will need to surrender emission units to match the emissions they generate. Some sectors receive a free allocation of emission units; they will need to purchase more units if they exceed this allocation. Emission units can be traded between sectors and internationally.

Households will not have to trade emissions units, though they will be affected as emitters pass on costs caused by the scheme, especially higher transport fuel and electricity prices.

Dave Brash of the Environment Ministry's Emissions Trading Group, said householders could take several actions to lessen the impact of these cost rises and gain health benefits as well.

"When buying a new car, purchasers should check the model's comparative fuel economy on the Rightcar website (www.rightcar.govt.nz). Correct tyre inflation saves up to

5 per cent of fuel costs, and walking or cycling should be used as alternatives for short trips.

"When buying appliances, check the energy rating label to save money and power – the more stars on the label, the better the energy efficiency.

"Switching off appliances at the wall can cut household power bills by 10 per cent. And a well insulated home is easier to heat – good ceiling insulation can save up to \$400 a year," Dave says.

The Government will provide a one-off rebate to all households facing electricity price increases caused by the scheme, and additional financial assistance will be available for families receiving benefits, superannuation, or Working for Families tax credits.

Further, the scheme comes with a billion-dollar Household Fund to promote energy efficiency and renewable technologies. The details of this programme are being developed, and it is due to start in 2009.

↘ Labelling to ease water pressure

Water efficiency labelling is planned for next year, enabling New Zealand consumers to compare the water use of different appliances and plumbing fittings.

The star rating labels (pictured) – similar to the energy rating labels on appliances – are expected to be introduced in 2009.

A Ministry of Consumer Affairs discussion document issued last year proposed that the water efficiency labels should apply to washing machines, dishwashers, toilets, showers, and tap equipment.

Water efficiency labelling forms part of a wider government programme targeting water quality and conservation, recognising the pressures of New Zealand's household water consumption.

The New Zealand Water and Wastes Association predicts water shortages in Wellington by 2011, and major spending on new water supplies for Christchurch within 20 years, unless more water can be conserved. It says the most effective and proven way to conserve water is through water metering.

It is estimated that total water use in New Zealand equates to two or three times more per person than in most other OECD countries, according to the Environment Ministry's *Environment New Zealand 2007* report.

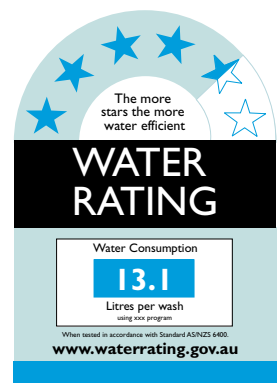
Fleur Francois, Acting Manager of the Environment Ministry's Sustainable Households Project Team, says New Zealanders tended to take abundant clean water supply for granted.

"People don't see the need to conserve water because they perceive it to be plentiful," she says.

As of last year, water metering was compulsory in 12 of the 74 local authorities, and 11 of those authorities charged for domestic water based on metered usage. Another eight authorities required domestic metering only in some areas, and they used these for charging.

"Public acceptance is a hurdle for the use of water metering by local authorities," says Fleur.

A proposed National Policy Statement for Freshwater Management is being considered by a Board of Inquiry. It requires local authorities to provide demand strategies for domestic water, in return for priority access of domestic water supply over competing demands.



> Note: The New Zealand label will follow the same design as the Australian label shown above.

➤ Sustaina-briefs

Carfree, carefree



> Environment Ministry Chief Executive Paul Reynolds (centre) leads a group of Ministry staff as they walk to work on World Carfree Day, 22 September. The group enjoyed some Wellington Spring sunshine on the walk from the Botanical Gardens to the Ministry office.

Capital car pooling

Wellington commuter drivers will be encouraged to car-pool through a Greater Wellington Regional Council programme due to start next March. The online-based scheme will differ from others by matching potential car-poolers with people who live in the same area, rather than the 'electronic notice-board' approach. It will be designed to focus on workplaces that are not well served by public transport. Car poolers will receive priority parking at reduced cost or free.

Sustainable urbanity

The government is seeking comment on ways of designing sustainable urban development for New Zealand. A discussion document, *Building sustainable urban communities – designing a place-based approach*, was released early last month by the Department of Internal Affairs (DIA). DIA Chief Executive Brendan Boyle said the Department's new Sustainable Urban Development Unit would seek to support existing urban development organisations with the powers and tools they need for specific projects. Submissions close on 28 November, and the discussion document can be seen at www.dia.govt.nz

eDay everywhere

People wanting to get rid of their old computer equipment should easily be able to find a local drop-off point, with eDay 2008 organisers having now confirmed 32 drop-off locations in 28 regions around the country from the Far North to Invercargill. eDay is held on 4 October in most, but not all regions – check www.eday.org.nz for full local details. Organisers are predicting that more than 1000 tonnes of old equipment will be collected this year, more than double last year's haul. All equipment dropped off at an eDay site will be recycled by accredited recyclers using accepted international practices.



Nelson gives away bins

Nelson City Council is looking for good homes for 75 metal rubbish buckets after introducing a comprehensive recycling programme at its offices. "Any residents who need an ash bucket are welcome to call into Civic House in Trafalgar Street to collect one," says the Council's sustainability coordinator, Karen Lee. "It seemed crazy to not at least try to re-use or recycle these bins that are no longer needed because of the success of our recycling programme." All under-desk rubbish bins in the office have been replaced with small desk cubes, with recycling stations located around the building.

NZ beats recycling target

New Zealanders are now recycling 60 per cent of packaging, beating the targets set under the Packaging Accord by a year. Individual targets for recycling paperboard, glass, aluminium, plastic and steel had all been met or exceeded, said Packaging Council of New Zealand Executive Director Paul Curtis. "Four years into the Packaging Accord, the numbers show that recycling is becoming a way of life, whether at home or at work," he said. "Over the past three reporting years, total consumption of packaging has remained almost flat, while recycling has increased significantly." The Packaging Accord is a voluntary agreement between the packaging industry, government and recycling operators to reduce the proportion of packaging in the total waste stream.

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