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Get on board with sustainable transport

Transportation is vital for business. As with other energy-using activities, transportation offers lots of opportunities to save money and reduce pollution at the same time.

Considering and planning for alternative transport arrangements can also deliver productivity increases. The size of the benefit is limited only by the amount of transport you currently use and your commitment to reducing it. When looked at in four key areas – greening your fleet, your supply chain, business travel and encouraging employees – there are opportunities for everyone.

1. Greening your fleet

Buying and leasing

When it comes to making a greener vehicle choice there are some basic rules to follow:

- if your business owns or leases cars, you should undertake an annual review of usage to ensure you don't have too many vehicles
- you also need to assess whether your business is using the right type of vehicles; buying or leasing bigger and more expensive vehicles can seem attractive from a prestige point of view but the rising cost of fuel makes fuel-efficient models a better choice for the bottom line
- think about the most appropriate car for your needs; if you operate in an inner-city area, there are many advantages to having a smaller car – they're cheaper to buy, easier to park, use less fuel and therefore their emissions are a lot less.

What to buy?

Australians buy more than one million cars every year. Our passenger cars account for 8 per cent of our greenhouse emissions, putting 43.7 million tonnes of greenhouse gases into the atmosphere every year.⁴⁵ The transportation sector generates 78 million tonnes of greenhouse emissions every year. That equates to 14.6 per cent of our national emissions. The majority of that is from road transportation.⁴⁶

If you operate your own delivery vehicles, try to group pick-ups into geographic zones when collecting or delivering goods. This will minimise the kilometres travelled by your vehicles, while at the same time reducing emissions and saving on fuel costs.

45 *Greener Motoring*, The Australian Automobile Association. See www.aaa.asn.au/documents/reports/2008/FACTA4_EcoDriving.pdf

46 DECC Australian National Greenhouse Accounts – National Greenhouse Gas Inventory, May 2009

The Green Vehicle Guide website at www.greenvehicleguide.gov.au can help your business to save thousands of dollars and reduce its environmental impact at the same time. It gives you information about cars sold in Australia and allows you to compare the car you're interested in with other cars in the same class. The comparisons include:

- fuel type
- fuel consumption on a litre per 100 kilometre basis
- CO₂ emissions on a gram per kilometre basis
- a greenhouse rating
- an air pollution rating
- overall star rating (combining the greenhouse and pollution ratings).

The site has a handy fuel calculator which can determine your annual fuel costs and total greenhouse gas emissions. An information kit is also available from the website which you can show to colleagues and management in your business. The site also lists the fuel efficiency details of older model cars if you're looking to buy a second-hand vehicle.

More tips

1. If you're wandering around a car yard, look out for the Fuel Consumption label on cars that you're interested in buying or leasing. This is on the front windscreen and details the fuel efficiency of the car and its greenhouse emissions performance.
2. Register with the Australasian Fleet Managers' Association Greener Motoring program at www.afma.net.au for detailed guidance on strategies to reduce fleet emissions and costs.

What to rent?

If you're travelling for work and need to hire a car, choosing a more environmentally friendly option will save you money and send a strong message to your professional network that your business walks the talk on environmental issues.

All car-rental companies offer fuel-efficient or hybrid cars. Some rental companies also offer carbon offsets for the cars that you hire. Others have made a public commitment to stock new-generation electric cars when they are released in Australia.

Renting a car is also a great way to 'try before you buy'. If you find a car that has rated well on the Green Vehicle Guide, why not rent it for the day to check that it's the right vehicle for your business?

Choosing the right tyres

When it comes to tyres, the issues of safety and performance are a priority for most people. However, not many people think about the efficiency of the tyres and the amount of fuel they use.

Research conducted by Michelin shows that tyres account for one tank of fuel out of every five.⁴⁷ So buying fuel-efficient tyres can save you money and help the environment.

Look for tyres with low rolling resistance and maximum efficiency. Properly maintained and inflated, such tyres can reduce your fuel bills by up to 4 per cent.

Also, make sure you pump up your fleet's tyres to the manufacturer's recommended levels each week. It may sound tedious, but it is safer and more fuel-efficient, and therefore greener.

SME transport innovation

Australian parts manufacturer Futuris has won a PACE Award from the American Society of Automotive Engineers for its enviroTUF™ carpet. The carpet for each car can use up to 100 recycled PET bottles. According to the judges, "Futuris is able to offer PET carpet at lower cost than nylon but with better appearance and feel. And it is 100 per cent recyclable."

47 See www.michelin.com

Efficient driving

If you have a large fleet and a large fuel bill, it often pays to send your employees on eco-driving courses that show them how to drive in a way that saves fuel.

Here are our top ten tips for eco-efficient driving:

1. Avoid hard accelerating and braking. According to TravelSMART, less aggressive driving can reduce fuel consumption by up to 30 per cent.⁴⁸ Driving your car too hard can also cause costly wear and tear on the engine, tyres, transmission and brakes.
2. Avoid areas and times of heavy traffic congestion to minimise 'stop-start' driving. Traffic interruptions account for about 40 per cent of average fuel consumption in city driving.⁴⁹
3. Avoid short trips wherever possible and plan ahead to combine multiple errands.
4. Most vehicles do not need to be 'warmed up' except in very cold conditions and after long periods of non-use. Don't leave the motor running when the vehicle is stationary.

Driving your car too hard can also cause costly wear and tear on the engine, tyres, transmission and brakes.

5. Avoid high revs. Engines operate most efficiently when revving at about 1500 to 2500 rpm. In a manual transmission vehicle, shift up a gear as quickly as is practical. An automatic transmission will shift up a gear more rapidly if you ease back on the accelerator once the car has momentum.
6. Clear out clutter from boots and back seats. Every 50 kilograms of extra weight a typical car carries increases its fuel consumption by about 2 per cent.⁵⁰
7. Minimise wind resistance. The faster you drive, the greater the wind resistance and fuel consumption. Remove roof racks and other external attachments when they are not needed. Open sunroofs and windows will also significantly increase fuel consumption at faster speeds.

48 See www.transport.vic.gov.au/travelsmart

49 Bureau of Infrastructure, Transport and Regional Economics

50 See www.racv.com.au

8. Air-conditioning can increase fuel consumption by 5–10% but it is more efficient than an open window at speeds of more than 80 km/h. While an air-conditioner does need to be used regularly, to avoid leaks and operation problems, avoid running it all the time. Use the vents instead.⁵¹
9. Keep tyres inflated to the highest recommended pressure. Under-inflated tyres can reduce fuel-efficiency. Optimum inflation will also increase tyre life and improve handling.
10. Keep your vehicle well-maintained for optimum performance. Have the engine serviced and wheel alignment checked according to the manufacturer's guidelines (usually every six months or 10,000km, whichever comes first). Also make sure to regularly check oil, coolant and other fluid levels.

Alternative fuels

Alternative fuels are far from new. According to HydrogenCarsNow, the first car designed in 1806 by Swiss Francois Isaac de Rivaz was fuelled by a hydrogen-oxygen mix. Rudolf Diesel designed his engine to run on peanut oil while the iconic Ford Model T was designed to run on either petrol or ethanol.

There are a number of alternative fuels available for cars in Australia. These include:

Biodiesel

Biodiesel is derived from dead animals and vegetable oils, including used cooking oil from restaurants and a number of plants such as canola and mustard seeds. It can potentially be used directly in any existing, unmodified diesel engine. It is now readily available across the country at B2 levels and many fleet operators are using B20, B50 and even B100 biodiesel.

LPG

Liquefied Petroleum Gas (LPG, LP Gas or Autogas) is synthesised from gases found in crude oil and natural gas fields and produced during the oil refining process. Australia is one of the biggest users of LPG on a per capita basis. It is our third most commonly used fuel, accounting for nearly 7 per cent of road transport fuel sales.⁵²

51 See www.makecarsgreen.com/10-points.html

52 See www.ret.gov.au

Car-sharing services

Membership of a car-sharing service is a useful and cost-effective addition to promoting walking, cycling and public transport. Cheaper than taxis or rental cars, car-share services can free your business and employees from the expense of vehicle ownership. By joining a service, you get the use of a shared car fleet when needed, with vehicles based at a wide range of locations and accessible 24 hours a day.

Members pay for use according to the distance travelled and the length of time used – you can rent the car for as little as one hour, to as long as you like. Though most common in Sydney and Melbourne, car-sharing services are also starting to take off in other capital cities as higher housing density and traffic congestion makes driving and parking a chore. They're an ideal solution for SMEs looking to save money and reduce emissions.

Ethanol

Ethanol in Australia is currently derived from cereals, sugarcane, crop waste and the waste from flour production. It's a renewable fuel and is mainly added to petrol in blends of E5 to E10 which is now readily available in service stations around the country. E10 is completely safe for most vehicles produced from 1986 and of the cars produced in 2009, 99.44 per cent could take an ethanol blend. However, there are global concerns about the environmental impact of using land to make ethanol from crops like corn when it could be used for food production or forest eco-system preservation.

Electricity

Electric cars don't just reduce pollution in our cities. They're also fast. The first car to break the 100 km/h land speed record in 1899 was an electric car called La Jamais Contente. Hybrid cars that use petrol and electric motors have mainstreamed electric cars, with Toyota selling more than two million of them. Coming soon to the mainstream Australian car market are Extended Range Electric Vehicles (EREV) and a wide range of electric cars. The recharging times for electric cars continues to improve, so in coming years expect wider availability in the marketplace.

Case study: GoGet – a car-share service

As the owner of Meerkat Computer Services, Sven Knutsen is based in inner-city Sydney where car parking spaces are difficult to find.

At no cost, his business joined the GoGet Carshare service which has eight cars in permanent designated parking spots all within 10 minutes walk of his workplace. All he has to do is book a car on the website at www.goget.com.au and then pick it up. For him, using GoGet is sometimes faster than getting a taxi and it works out a lot cheaper.

Using a car-share service has helped to reduce transportation costs of getting Sven to and from clients. He gets to take all his equipment and tools with him and he can hire the car by the hour for as little or as long as he wants. Most important of all, using the service helps the environment, saves him money and he still gets to his clients on time.

SMEs in inner-city Sydney also use station wagons from car-share services to deliver supplies or use hire cars to go to meetings. Using a car-share scheme can be a cheaper way to give your business flexibility in your transportation requirements.

Flexicar has car-share vehicles available in both Sydney and Melbourne. Go to www.flexicar.com.au for further information.

The benefits of car-sharing services include:

- when a vehicle is not needed for frequent daily use, car-sharing alleviates the high fixed costs of ownership, such as registration and insurance (often amounting to thousands of dollars per year), as well as helping to reduce traffic and parking congestion
- many car-sharing fleets use the most modern, eco-efficient models

- research suggests that, because cars are expensive to own but relatively cheap to use, car ownership encourages more driving, even when other options would be as convenient or healthier; car sharing therefore promotes walking, cycling and using public transport, with car sharers driving a lot less than car owners.

2. Supply chain

A number of transportation companies such as Linfox are making real efforts to reduce the amount of fuel they use and their emissions. Is your current delivery company or courier service one of them?

Ask your delivery company about the actions they're taking to reduce their emissions and fuel use. Are they actively measuring the impact they have on the environment? Are they using fuel-efficient or alternative-powered vehicles? Are they driving in a more fuel-efficient way? If not, it is an opportunity to talk to them about 'greening' their performance.

3. Business travel

Here is a quick run-down of the key things to consider.

Telecommuting

Overseas governments are promoting telecommuting from home as a way of combating traffic congestion and air pollution. As Internet speeds soar, more Australian companies are also looking at this option. It doesn't suit every person or workplace – and it does require a workplace culture where output is rated more highly than the length of time a person is 'seen' to be doing their job.

The potential savings make it worth exploring. Workers save time and money on travel, while your business saves on real estate and parking costs. Businesses with employees that telecommute are expected to supply the equipment needed to enable them to work from home. This would include items such as a laptop, webcam and internet connection and the company would also contribute to the cost of electricity. This can often cost far less than having that person full time in the office.

Businesses that do have employees working from home should undertake a site inspection to ensure the office location meets all Occupational Health and Safety standards.

Go to www.lifehacker.com.au/tags/telecommuting/ for more information.

‘Virtual’ meetings

Remember the Yellow Pages® advertising slogan ‘Let your fingers do the walking®’? Well, that’s even truer these days. It’s not called the information superhighway for nothing!

Online communication is revolutionising business by eliminating the need for employees to hit the road. While ‘face time’ is still important, there are many instances where meeting in person can be replaced by teleconferencing, web-conferencing or video-conferencing. All involve a fraction of the time, money and energy.

For more information, guides and tips on ‘virtual’ meetings, see www.telstraenterprise.com/conferencingcollaboration

The great thing about a webcam or video-conference meeting is that you get to see the person you’re talking to, allowing you to pick up on their body language. If both parties have high speed internet, you can even have the video meeting in full screen mode on your computer or monitor – something that makes for very productive meetings.

Video-conferencing programs like Skype, iChat and Windows Messenger are free of charge – iChat also allows you to bring in people from multiple locations on video. But you do need to ensure that all parties taking part have good internet connections.

Commercial programs from companies like Adobe and Webex also allow all parties in the meeting to interact with documents as well. There are many tools out there that can help SMEs to be more productive and are far cheaper than a face-to-face meeting.

Air travel

The cost of air travel is not just financial. There’s a big environmental cost as well. Air travel produces significantly more carbon emissions than other types of passenger transportation. Aircraft emissions have a greenhouse effect that’s a number of times greater than road vehicle emissions. This is because they’re released at higher altitude where they remain in the atmosphere for longer periods of time.

According to Qantas, a return trip to London from Sydney generates 3.8 tonnes of CO₂-e per passenger. Going the same distance in multiple short-haul flights produces even more emissions due to the amount of fuel burnt during each take off and landing.

By utilising video-conferencing, SMEs can save time and money by:

- avoiding the need for so many flights – flights between the capital cities can cost hundreds of dollars

- reducing the use of taxis – getting taxis to and from the airport can be expensive and there’s often a big queue
- not driving to the airport means no airport parking costs
- the time wasted travelling to and from the airports at both ends is avoided.

Go to www.travelsmart.gov.au for more useful information about travel.

If you must travel, why not carbon offset your air flights? Qantas, Virgin and other airlines offer these offsets as part of the ticket buying process. It’s as easy as ticking a box and best of all, it’s very cheap to do. Offsetting your flights is a very economical way to make a real difference to your company’s greenhouse emissions.

4. Encouraging employees

Walking and cycling – get on your bike

Many people already own a bike and in 2008, bicycles outsold cars with more than one million bikes sold.⁵³

In today’s busy world, many employees are working longer hours and don’t always have the time to keep as fit as they should. There’s a downside to this from a business perspective as unfit employees are not going to work to their optimum potential.

An easy way to get your employees fit and reduce your environmental footprint is to get them to ride to work. For those who don’t own a bike, how can you make it easy for them to do so?

One Dutch company called Waterschap Veluwe gave a free pushbike to all employees who lived within 10 kilometres of its office. It put in place shower facilities, changing rooms and bike sheds and even offered employees an allowance for getting home on rainy days. As a result, 40 per cent of the employees cycle to work, making for a fitter and more emissions-friendly workplace.⁵⁴

53 ‘Bicycle sales race ahead as city dwellers go green’, *The Australian*, December 6, 2008

54 See www.travelsmart.gov.au

Walking to work

Why not encourage your employees to walk to work? A good time to start such a push is on the national Walk to Work day. Run by the Pedestrian Council of Australia, the scheme encourages businesses small and large to get their employees fitter and become more environmentally friendly in the way they travel to work. Go to www.walk.com.au for more information.

Research suggests that those who get in 30 minutes of physical activity five times a week significantly reduce their chance of developing a serious illness and they also improve their mental alertness. Fitter employees are better employees as they're healthier and less likely to take time off work. Investing in bike-friendly facilities and promoting incentives to encourage walking or cycling therefore makes good business sense.

Walking or travelling to work on public transport one day a week can cut a regular car commuter's weekly fuel use and greenhouse emissions by up to 20 per cent.

If your business is interested in becoming bike-friendly, it should:

- provide showers and lockers for cyclists
- ensure there's a secure, sheltered area to lock up bikes
- provide financial incentives, such as salary sacrificing so employees can purchase bike equipment or consider providing long-serving employees with a free bike as part of their overall package
- make walking and cycling part of a team-building exercise by involving your business' bike riders in charity fundraising events.

Case study: Coles – ride to work initiative

In 2009, the Coles headquarters in Melbourne created secure cage parking facilities for 120 pushbikes. In addition to providing an air pump for flat tyres, they also put in place 30 showers, clothes dryers and ironing boards. For people affected by rain and wind, they've even provided a hair straightener.

Case study: Monash University – Bike Share Scheme

In 2009, Monash University started a Bike Share Scheme at its Clayton campus. Seventy bikes made up of recycled parts have been made available for the scheme and each bike comes complete with a free helmet, lights and a 'shopping trolley' locking system. This makes it very easy for the students and employees to get around. Could your business do something similar for your employees?

For more information on these and other case studies, visit the TravelSmart Victoria website at www.travelsmart.gov.au

For information on creating a more bike-friendly workplace email bicyclevic@bv.com.au or go to www.bv.com.au and type in 'workplace'.

You can read the Australian Greenhouse office case study at www.travelsmart.gov.au/employers/cyclefriendly.html for more information on managing an employee bike fleet.

Go to www.tmr.qld.gov.au for information on setting up a workplace bike pool.

Public transport

If 50 people catch a bus or train that's potentially 50 fewer cars on the road. The environmental benefits are obvious. But let's face it, there's a reason people prefer cars: public transport isn't always convenient, and people's use of it depends very much on the frequency of services and travel times.

Create a workplace culture that actively encourages the use of public transport wherever possible:

- provide interest-free loans or let employees salary sacrifice the purchase of periodic travel passes
- provide easy access to public transport maps and timetables
- where possible provide some flexibility for those who might find it easier to start and finish work earlier or later, depending on available services
- consider giving regular public transport users Cabcharge vouchers as a fallback plan when they work late.

It's also important to promote the positive benefits of public transport to your employees:

- it's cheaper than driving a car to work
- coming to work on a bus or a train allows people time to read a book or a newspaper
- they don't have the stress of traffic jams, so there's a better chance they'll arrive at work happier.

Car pooling

If you've ever been stuck in peak-hour traffic, you might have noticed that the majority of cars only hold one person. Why not encourage your employees to share the commute to work by car pooling. It's better for the environment and it will save them money.

For a typical 6-cylinder family sedan doing the average number of kilometres, the estimated cost of owning and running it in NSW is up to \$265 per week.

With car pooling, your employees can potentially halve their costs. This figure can be even higher if your employees go without their car altogether.⁵⁵

55 See www.mynrma.com.au

Car pooling is probably the easiest 'sell' to get employees to reduce their transport eco-footprint. They still get the convenience of car travel but save on petrol costs, reduce pollution and greenhouse emissions and get to use the transit lane.

The basic rules of car pooling for your employees:

- they should agree upfront on the terms of their car pool arrangement and how they will share the costs
- they should never be late for the person picking them up
- they should not expect to stop off for milk on the way home!

To encourage car pooling:

- have a postcode coffee morning at work so people who live in similar postcodes can be introduced to each other and arrange to car pool; you might even extend this to include neighbouring businesses
- incentives can also play a key role in getting people to make the switch; offer a guaranteed car parking space for car pooling employees or offer them a free car tune up – for some companies the cost of tuning a car is far cheaper than having to supply a car parking space
- use an online car pooling service like www.thecarpool.com.au
- provide a fallback transport option so employees are never left stranded when plans go awry; if a car pool partner has to rush home because their child is sick at school, guarantee them a ride home – the UK chemist Boots does this and even though they have 7500 employees, this option is reportedly only required a few times a year.

Flexi-time

Flexi-time arrangements contribute to the morale of employees by giving them a greater sense of control over work-life balance and also support eco-efficient transport.

Commuting during morning and afternoon peak traffic is time-consuming and energy-intensive. Half of all travel on Australian roads occurs in congested traffic (moving at less than one-third of free-flowing speeds) or interrupted traffic (moving at less than half free-flowing speeds).

Analysis by the Australian Bureau of Infrastructure, Transport and Regional Economics indicates traffic interruptions account for about 40 per cent of all vehicle fuel consumption in major cities, contributing 17 per cent of total domestic transport greenhouse gas emissions. Yet as little as a 4 per cent change in traffic volume can mean the difference between free-flowing traffic and gridlock.⁵⁶ Whether employees drive, take the bus or ride a bike, flexi-time can help them avoid the crush and reduce travel times.

Case study: Linfox

Changing driving techniques has changed Linfox's bottom line. Linfox drivers undertook the 'Eco Drive' course* as part of a multi-pronged push to successfully reduce the company's carbon emissions by 28 per cent between 2007 – 2009.

Being gentle on the brakes, using the appropriate gear, driving steadily and keeping tyres fully inflated were just some of the techniques that reduced pollution and saved Linfox money. Go to www.linfox.com/environment.aspx for more information.

* See www.ecodesk.com

56 *Greenhouse Gas Emissions from Australian Transport: Base Case Projections to 2020*, – Bureau of Infrastructure, Transport and Regional Economics. See www.bitre.gov.au

