



The global approach

Toyota Australia is committed to environmental excellence. As we cease local manufacturing operations, our direct environmental impacts such as energy use, water use and greenhouse gas emissions will decrease significantly. However, our commitment to upholding our environmental values and our continuous improvement mindset remains strong.

The importance of ‘respect for the planet’ is central to Toyota’s Global Vision. Toyota’s philosophy and policies on the environment are based on the Toyota guiding principles, which can be found on [page 7](#). Policies for environmental initiatives were first developed in the 1990s as the Toyota Earth Charter. This sets out Toyota’s commitment to:

- > contribute to a prosperous 21st century society, in which growth is in harmony with the environment
- > pursue all possible environmental technologies
- > develop a voluntary improvement plan which addresses environmental issues on global, national and regional scales

- > work to build cooperative relationships with individuals and organisations involved in environmental preservation.

In 2015, Toyota published ‘the Toyota Environment Challenge 2050’, an ambitious commitment to go beyond zero environmental impact to achieve a net positive impact. This consists of six challenges that address global environmental issues such as climate change, water shortages, resource depletion and declining biodiversity. More information can be found on TMC’s website at www.toyota-global.com/sustainability/environment/challenge2050/.

Five-yearly Toyota Environmental Action Plans are developed to provide a framework for implementation, and a series of action items and specific goals are formulated. The sixth Toyota Environmental Action Plan, which covers the period from 2016/17 to 2020/21, was produced with input from global Toyota affiliates. More information can be found on TMC’s website at

www.toyota-global.com/sustainability/environment/management/actionplan/plan6.pdf

In March 2017, representatives from Toyota Australia joined colleagues from Asia Pacific affiliates at the seventh consecutive Environmental Management Conference in Bangkok, Thailand. Delegates shared best practice environmental initiatives and discussed performance against the sixth Environmental Action Plan.



New vehicle zero CO₂ emissions challenge



Life cycle zero CO₂ emissions challenge



Plant zero CO₂ emissions challenge



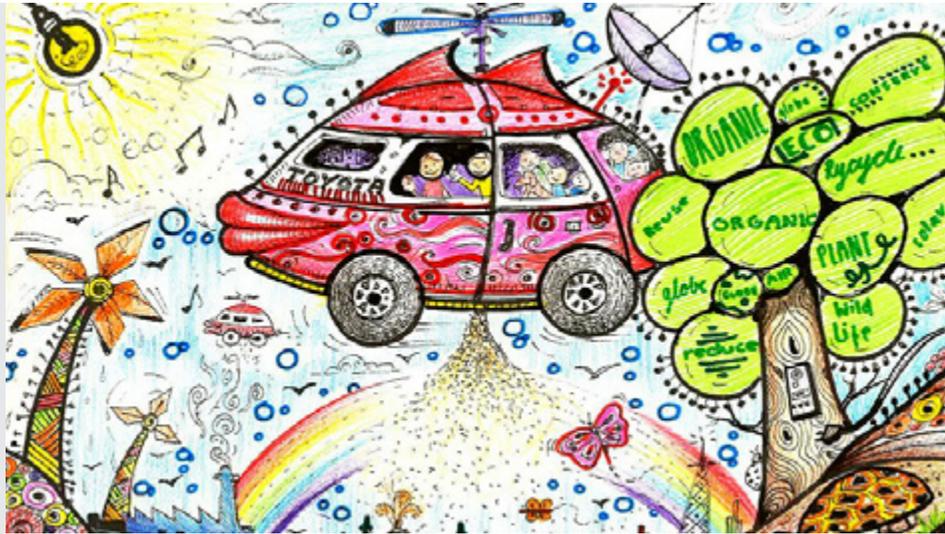
Challenge of minimising and optimising water usage



Challenge of establishing a recycling based society and systems



Challenge of establishing a future society in harmony with nature



Environment month Every June, Toyota affiliates around the world recognise Environment Month. Since 1973, Toyota Global Environment Month has been celebrated. To commemorate, Toyota Australia held a host of activities during June 2016.

The 'Mottainai Warriors' school holiday program was piloted by our Manufacturing division. 'Mottainai' is a Japanese term meaning that things have value and it is important not to waste them. More than 20 children and grandchildren of employees were invited on a tour of our Altona plant, to visit the Powertrain shop, the Japanese garden, the Paint Shop sludge pool, the waste and recycling centre and Assembly Shop end of line area. The children were then challenged to help us find ways to reduce our environmental impacts in each of the different areas. Ideas included adjusting heating and cooling set points, improved recycling areas and planting more trees. The feedback from children and staff was overwhelmingly positive.

Toyota Australia

Toyota Australia's environmental strategy and management system is built on the foundations of TMC's environmental approach. We develop our own Environmental Action Plan annually and update our ISO 14001 environmental management system to enable us to reach these targets. Both of these are endorsed by Toyota Australia's Environment Committee. Our most significant environmental impacts occur at our vehicle manufacturing and assembly plant. The site covers 76 hectares next to Kororoit Creek in Altona.

Toyota Australia's Environmental Action Plan 2016–17 sets out TMCA's environmental vision, strategy and focus areas. Key initiatives of the plan are grouped into five focus areas: policy, process, people, property and product.

Looking ahead, the transition from manufacturing to purely sales and distribution will mean that our environmental impacts and priorities will change. To take into account the new business structure and maintain our commitment to environmental protection, we will:

- > develop a workforce that has a heightened awareness of environmental responsibilities and challenges, through education and improved training

- > review our response to end of life vehicles through improved strategy development and hybrid battery recycling and reconditioning
- > develop a green building strategic roadmap to ensure that all new and existing Toyota Australia facilities incorporate sustainability best practice.

Toyota Environmental Management System

Toyota Australia's Environmental Management System (TEMS) combines the requirements of the ISO 14001 Environmental Management System and the Toyota Production System (TPS). This system facilitates the implementation of our own environmental policy and annual plan. Toyota Australia's environmental management is driven by the two key principles of TPS: 'just in time' and 'jidoka'. The TPS principle of 'just in time' espouses making only what is needed, when it is needed, in the amount that it is needed, thus eliminating waste, including wasted time and effort. Jidoka refers to 'automation with a human touch' and is based on taking corrective actions as soon as a problem is identified by halting production.

Environmental compliance

TEMS provides a framework for us to manage our environmental risks and legal compliance. It is certified to the ISO 14001 environmental management standard at four key sites:

- > our manufacturing plant and company fleet and vehicle servicing garage at Altona, Victoria
- > corporate headquarters in Port Melbourne, Victoria
- > New South Wales parts centre
- > sales and marketing office in Woolooware Bay, Sydney.

The ISO 14001 accreditation was recertified by a third party during the reporting period.

Our manufacturing plant in Altona has an accredited environmental licence, issued by Victoria's Environmental Protection Authority (EPA) in 2004. The licence requires us to meet certain criteria across five areas:

- > general conditions
- > discharge to air
- > discharge to water
- > discharge to land
- > amenity (odour, noise and waste).

There were no significant incidents in 2016/17 requiring notification to the EPA. There were also no fines or sanctions for non-compliance with environmental laws and regulations.

We also comply with the National Greenhouse and Energy Reporting Scheme (NGERS) and National Pollutant Inventory (NPI). Details from our NGERS report can be found on [page 41](#) and our NPI report can be accessed at www.npi.gov.au.

Our approach to environmental compliance focuses on risk minimisation in the areas of chemical control, odour, ground water and soil contamination. This approach reflects the precautionary principle as detailed in Principle 15 of the United Nations' Rio Declaration on Environment and Development. This principle states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".

Chemicals used in parts for our locally built vehicles meet strict overseas recycling standards that exceed Australian legal minimum requirements for chemical control. The Altona site's list of banned chemicals meets European and Japanese environmental protection standards.

We have extensive controls and monitoring in place for soil and groundwater contamination prevention. Groundwater at our Altona site is tested annually through 17 wells.



Banksia Awards In late October, Toyota Australia was announced as a finalist in the 28th annual Banksia Sustainability Awards. The company was nominated in the category of Large Business Sustainability Leadership. The Banksia Foundation seeks to raise the profile of sustainability issues facing Australia and recognise leading initiatives. In late October, Toyota Australia was announced as a finalist in the 28th annual Banksia Sustainability Awards. The company was nominated in the category of Large Business Sustainability Leadership. Toyota Australia's entry focused on its long commitment to sustainability in Australia.



National Tree Day National Tree Day and Schools Tree Day, organised by Planet Ark, have grown to be Australia's largest community tree-planting and nature care events, and are proudly sponsored by Toyota Australia and our dealership network. In 2016, National Tree Day celebrated 21 years of environmental action, with over 22.3 million trees planted by 3.8 million people since its inception.

Energy use and greenhouse gas emissions

Energy use

Our largest contribution to greenhouse gas emissions comes from electricity and natural gas used at our Altona plant. Consumption of both was marginally lower in 2016/17 than in previous years, reflecting the lower production volume.

The energy used per vehicle increased marginally, given the energy used for heating, lighting and certain manufacturing processes are fixed, while production numbers have decreased.

Energy use

Item / Year*	2016/17	2015/16	2014/15	2013/14	2012/13
Production electricity use – MWh	81,457	83,808	80,182	86,851	83,188
Production electricity use – kWh/ vehicle manufactured**	931	880	907	847	837
Production gas use – GJ	518,592	526,129	490,019	531,252	534,900
Production gas use – GJ/ vehicle manufactured**	5.93	5.5	5.5	5.2	5.4

* Resources used for vehicle production and the Altona site offices. Does not include resources used at Altona parts and accessories, or Company Fleet located at Altona.

** Electricity and gas used per vehicle manufactured is based on the number of cars that have been built and come off the production line at our Altona site, known as 'line-off'. For the period April 2016 to March 2017 this was 87,464 vehicles. The figure of 87,466 reported on [page 22](#) of this report refers to 'final-finish', which includes 'line-off' plus cars stored in the buffer for testing and checking before being customer ready.

Greenhouse gas emissions

Toyota takes climate change very seriously, as demonstrated by our commitment to achieve zero emissions in our Environmental Challenge 2050 strategy. At Toyota Australia we have implemented a range of measures to reduce our energy consumption through the adoption of best practice technologies and effective management practices.

The majority of our emissions come from electricity and gas used across the Altona manufacturing site. There are also emissions associated with transport at the site as well as Volatile Organic Compounds (VOCs) released in processes using solvents, paints, sealers or hydrocarbon-based chemicals. The largest source of VOCs at Toyota is the solvent in the painting process during vehicle production at Altona.

In 2015/16** total emissions at TMCA were 138,610 tCO₂-e, a decrease from previous years, reflecting decreased production and the divestment of the Sydney City Toyota and Lexus franchises.

Greenhouse gas emissions**

Item / Year	2015/16	2014/15*	2013/14*	2012/13	2011/12
Total TMCA tCO₂-e	138,610	144,893	144,416	153,270	147,070*
Electricity tCO₂-e	103,911	110,828	112,315	117,238	112,343
Gas tCO₂-e	27,559	26,765	24,970	27,866	26,463
Transport tCO₂-e	4,383	4,364	4,189	4,290	5,237
VOC tCO₂-e	808	999	1,133	1,740	963
Engine testing tCO₂-e	1,616	1,937	1,809	2,118	2,063

* Data does not include Sydney City Lexus Waterloo, Sydney City Lexus Darlinghurst, Sydney City Toyota and the Sydney City pre-delivery centre. These premises were sold in March 2015 and are therefore not relevant to the current reporting period.

** Note: the greenhouse information contained in this table is for 1 July 2015 to 30 June 2016, to align with the federal government's National Greenhouse and Energy Reporting Scheme (NGERS).



Water use

Minimising and optimising water use is one of our six environmental challenges. At Toyota Australia the majority of water is used within the manufacturing process and is sourced from municipal water supplies, however we also use rainwater collected

onsite for toilet flushing, irrigation and the clearing and topping up of the sludge pool.

Overall water consumption at Altona was slightly lower than the previous year, but water use per vehicle was slightly higher, due to decreased production.

Water use

Item / Year*	2016/17	2015/16	2014/15	2013/14	2012/13
Total production water use kL	315,119	333,900	312,103	353,784	377,165
Total production water use kL/ vehicle manufactured**	3.6	3.5	3.5	3.5	3.8

* Resources used for vehicle production and the Altona site offices. Does not include resources used at Altona parts and accessories, or Company Fleet located at Altona.

** Water used per vehicle manufactured is based on the number of cars that have been built and come off the production line at our Altona site, known as 'line-off'. For the period April 2016 to March 2017 this was 87,464 vehicles. The figure of 87,466 reported on [page 22](#) of this report refers to 'final-finish', which includes 'line-off' plus cars stored in the buffer for testing and checking before being customer ready.

