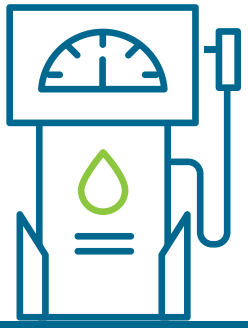
Australian Institute of Petroleum

DOWNSTREAM PETROLEUM

NATIONAL FUEL QUALITY STANDARDS



KEY MESSAGES

- Government regulated fuel quality standards facilitate the introduction of advanced engine technologies. Benefits include improved urban air quality (reduced smog and particulates), reduced greenhouse gas emissions, and improved fuel efficiency.
- Better fuels require major refinery investment, cost more to produce and lead to higher CO2 emissions from refineries.
- Benefits of further tightening fuel standards for petrol do not outweigh the costs of such action.

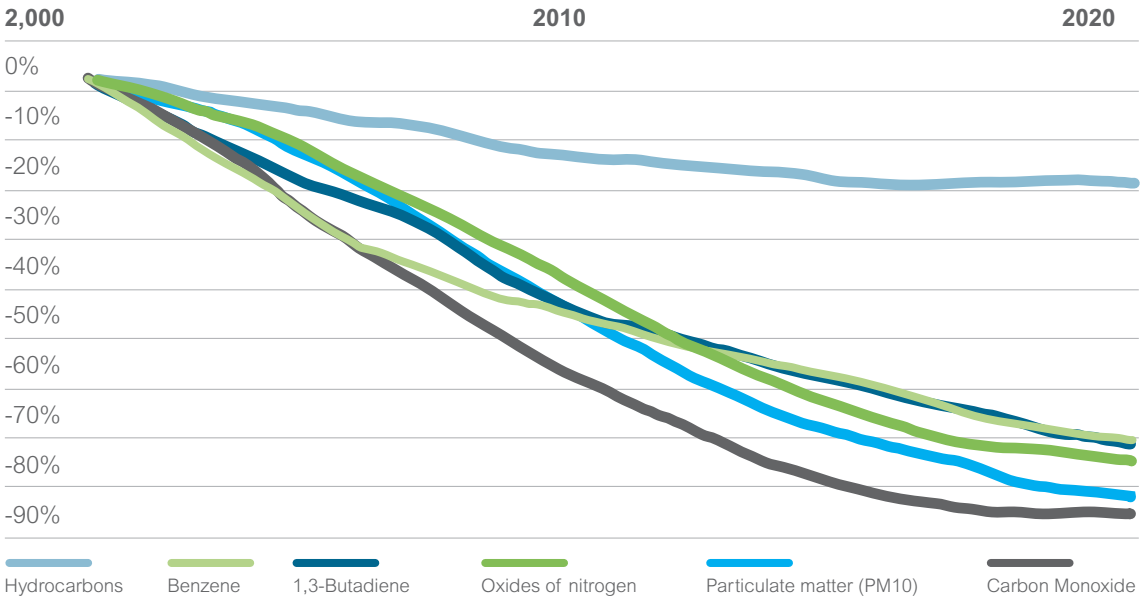
AIP supports appropriate national fuel quality standards to facilitate the introduction of advanced engine technologies and so help reduce scientifically established urban air quality impacts.

The Fuel Quality Standards Act 2000 provides the regulatory framework for fuel quality standards in Australia. AIP continues to work closely with governments and the motor vehicle industry to ensure that fuel quality standards are consistent across Australia, and predictable, so that participants in the market have sufficient time to implement and adjust to any new standards.

Over the past decade the Australian refining sector has invested well over $3 billion to implement the Australian Government's Cleaner Fuels Program.

This program was designed to help significantly improve urban air quality, including an 80 per cent reduction in nitrogen oxides by 2020. New vehicle technologies, particularly high compression, direct injection petrol engines and high compression, common rail diesel engines will enable further improvements in fuel economy and lower emissions to be achieved.

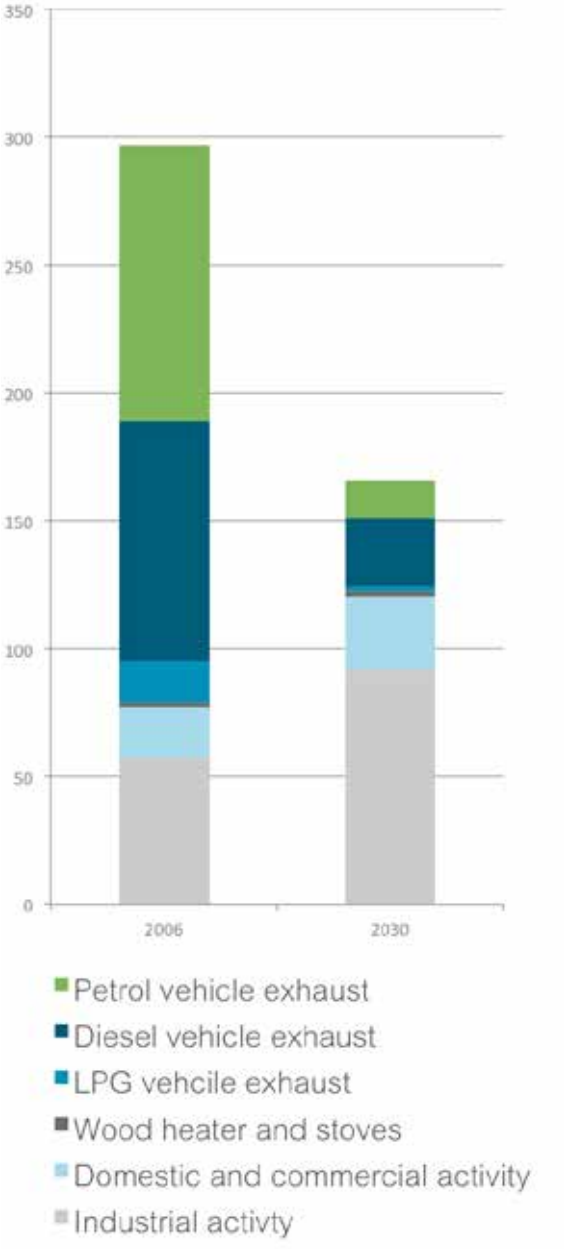
REDUCTION IN VEHICLE EMISSIONS FROM CLEANER FUELS



Modelling of Victorian air quality by CSIRO confirms these reductions in motor vehicle emissions and projects that by 2030 emissions from motor vehicles will become a relatively small source of nitrogen oxide emissions compared to other domestic and industrial sources.

AVERAGE DAILY NOx EMISSIONS:

Tonnes per day



Source: CSIRO

The current petrol and diesel standards when combined with complementary engine technologies will address all national air quality issues that can be controlled by regulating fuel quality.

ALL PROSPECTIVE MAJOR PETROL VEHICLE TECHNOLOGIES, EXCEPT FOR LEAN BURN GASOLINE DIRECT INJECTION (GDI), CAN OPERATE ON FUELS ALREADY AVAILABLE IN THE AUSTRALIAN MARKET

Some lean burn GDI engines require 10 ppm sulfur (Euro 5) PULP to operate.

However, this technology is only used in the very small, high performance, luxury segment of the vehicle market, so production and distribution of a boutique fuel for such a small market segment is not commercially viable. Lean burn technologies are no longer produced in Japan and are largely phased out in Europe.

No further major adjustments to Australian fuel quality standards are required to meet identified technology facilitation, urban air quality or climate change emission reduction objectives.

Given the absence of vehicle operability issues and the limited environmental benefits from further changes to Australian fuel standards for petrol and diesel, any proposals for changes to these fuel standards must:

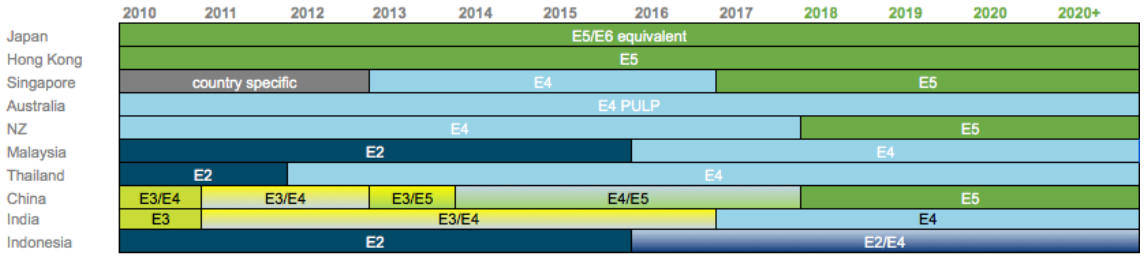
- be based on a sound and thorough evaluation of the scientific and economic basis for such change, and
- account for the long lead times (which are getting longer due to resource and labour constraints) required to make the necessary engineering changes to refineries.

ASIAN FUEL STANDARDS

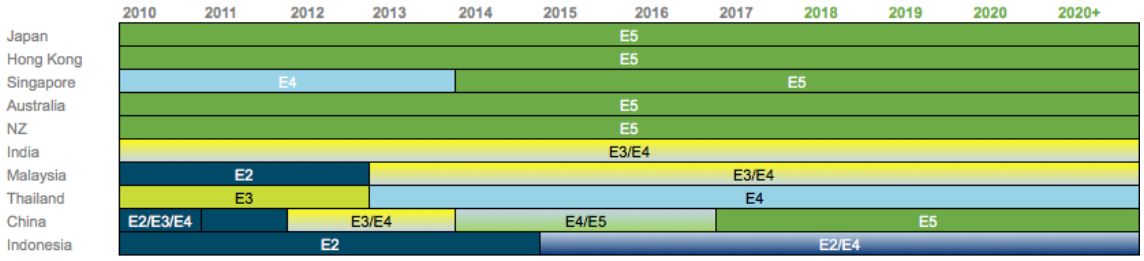
Countries in the Asia–Pacific region are mandating cleaner fuels on different timelines. A key driver in a number of cases, particularly China, has been a desire by governments to begin to address extreme urban air quality problems.

As demand for higher quality fuels has increased, refineries in the region are now producing these fuels as standard products rather than as boutique fuels for specific markets. This has resulted in increased availability of these fuels.

PETROL REGULATORY OUTLOOK IN THE ASIA-PACIFIC REGION



DIESEL REGULATORY OUTLOOK IN THE ASIA-PACIFIC REGION



MINISTERIAL FORUM ON MOTOR VEHICLE EMISSIONS

- AIP supports orderly transitions to cleaner fuel standards where a community benefit has been demonstrated.
- AIP has been unable to support the introduction of 10ppm sulfur petrol because of the lack of operability benefits, limited environmental benefits and significant cost impacts.
- The current petrol average sulfur levels in the Australian market are already well below the regulated maximum limits.
- The refining industry would have to invest approximately $979 million which could threaten their economic viability
- In responding to the Government's imperatives, it is possible to introduce 10ppm sulfur across all petrol grades by 1 July 2027.
- The transition to 10 ppm sulfur could be supported by an interim reporting mechanism to safeguard the current petrol sulfur levels.
- This position does not guarantee that each Australian refinery will continue to operate into the future but rather allows careful consideration of the most cost effective solution.

Further detail is available at:
➤ Click here to see the report

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