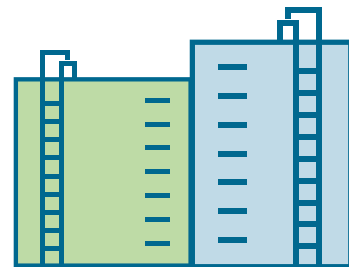


DOWNSTREAM PETROLEUM



AUSTRALIAN REFINERY COMPETITIVENESS



KEY MESSAGES

- Over the past decade, the industry has been through a period of significant restructure.
- The Australian refining industry is part of a highly competitive global oil market.
- Profitability and ongoing viability will be determined largely by supply and demand in the Asian refining industry.
- Australian refineries see a long-term viable future as long as productivity can be improved, costs can be controlled and new costs are not borne by industry as a result of unnecessary regulation.
- Australian refineries are smaller than regional competitors, but do have their own competitive advantages including market access and integration, efficiencies reliability, and speciality products production.
- Australian refineries continue to be challenged:
 - excess refinery capacity in Asia
 - increased competition from mega-refineries in Asia
 - commercial pressures for increased business efficiencies and avoidance of new costs
 - general tightening of regulatory requirements
 - implementation of climate change policies
 - competing demand and high cost for maintenance and construction services, and skilled labour
- Continued viability of Australian refineries will require a stable policy and investment environment and energy policy based on open, efficient and competitive market principles.

Over the past decade, Australia's refining industry has been through a period of substantial restructure. As a result, Australia now has four refineries, each with its own discrete competitive advantages that has ensured its current viability. Although the refineries were generally constructed in the 1950s and 1960s, they have been extensively upgraded since then, notably during 2005 and 2006 in order to meet tighter fuel standards. These refineries are relatively small by world standards, with the largest having a capacity of 8 830 ml pa (megalitres per year), compared with the four largest Asian refineries which produce between 30 000 ml pa and 70 000 ml pa. Australian refineries offer none of the economies of scale benefits that are available from these larger refineries.

AUSTRALIAN REFINERIES 2019

Refinery	Capacity (ml pa)
Lytton (Caltex—Brisbane)	6300
Altona (Mobil—Melbourne)	5220
Geelong (Viva Energy—Geelong)	7470
Kwinana (BP—Kwinana)	8830
Total	27 820

REFINERY COMPETITIVENESS

Economies of scale provide a key competitive advantage in refining, with larger refineries having lower unit costs of production and the ability to purchase inputs (e.g. crude oil) in larger parcels hence at lower unit costs.

Economies of scale arise from larger production runs, lower capital and labour costs per unit of production, and lower purchasing costs for larger volumes of inputs, such as crude oil and energy. Newer refineries also benefit from the latest technology with efficiencies realised from greater flexibility in the crude oil inputs and product slates produced.

Refiners seek to run the optimal mix of crude oils through their refineries, depending on the relative price of available crudes, the specific refinery equipment, and the desired

output mix to meet the demand and quality standards of their target markets.

Each Australian refinery will seek to maintain an individual competitive advantage through concentrating on areas where a significant cost or efficiency advantage is evident. For example, the use of domestic advantageously priced feedstock, high utilisation rates, establishing niche markets and access to key markets all underpin competitive advantage.

While the cost of crude oil is the major input cost for refineries (around 90 per cent according to the ACCC), other key expenses for refineries include:

- crude oil shipment and storage,
- utilities and energy charges,
- additives, catalysts and chemicals,
- capital costs, financing and depreciation,
- wages and salaries,
- plant maintenance,
- site security and systems,
- regulatory measures,
- product shipment and storage, and
- government taxes and charges.

Refineries seek to manage the challenges they face by improving the efficiency of their operations through enhanced refinery yields, reliability and cost containment. Continued availability of highly trained technical staff and contractors can contribute to high levels of refinery efficiency.

Compared to refineries across Asia, Australian refineries suffer from substantial disadvantages in operating and capital costs that virtually preclude Australia from consideration for major new refinery projects. The relatively small Australian refineries offer no economies of scale benefits. Australian labour and construction costs for new and expanded refinery investments remain high compared to costs in most countries in Asia.

AS AN INDUSTRIALISED NATION, AUSTRALIA OFFERS NONE OF THE CAPITAL OR OPERATING COST BENEFITS AVAILABLE IN MANY DEVELOPING COUNTRIES

The taxation and investment regimes applying in Asia are also highly attractive for new facility construction and for substantial refinery upgrades, through the provision of taxation holidays, substantial investment allowances and investment facilitation.

These competitive disadvantages for Australian refineries compared to Asia can impact adversely on the decisions that must be taken locally on investments in major refinery upgrades and overhauls. The closure of the Clyde refinery in 2009 was a direct result of these disadvantages that included:

- not regionally competitive because of the small scale,
- did not generate sufficient cash to justify further investments, and
- alternative supplies could be sourced from the Asian region.

More complex and costly environmental and other regulatory measures also pose significant constraints on new investment in Australia and provide ongoing challenges for existing Australian refineries. Overlapping federal, state and local government regulations also increase the complexity of operations and raise the costs of doing business in Australia.

THE ROLE OF GOVERNMENT

AIP considers that the key role for governments is to provide a clear, stable longer term policy framework, underpinned by a strong market-based approach.

Government policy should:

- ensure a competitive and open market is maintained in Australia,
- ensure that the local refining industry is not competitively disadvantaged in the Asian region, and
- maintain a strong commitment to technical skills development in the Australian education system.

Government policies will impact on the ability of Australian refiners and fuel importers to attract further investment funds for refinery and import terminal upgrades, and ultimately for major maintenance programs.

Key policy influences on the competitiveness of the Australian downstream petroleum industry are:

- fuel quality regulation,
- energy policy,
- liquid fuel supply reliability and security policies,
- alternative fuels policies and mandates,
- fuel and corporate taxation,
- industrial relations frameworks, skilled labour availability and training,
- climate change policy,
- environmental and OHS regulation,
- competition regulation, and
- fuel retailing regulation.

In each of these areas, AIP and member companies advocate policies that are harmonised across all Australian jurisdictions, apply equally to all industry participants and are based on sound science supported by comprehensive economic analysis.

Proposals for changes to current market-based policy settings need to clearly demonstrate that:

- a real market failure or vulnerability exists within the industry,
- new policy measures will produce a net benefit to the community and will not impact adversely on the competitiveness of the industry or liquid fuel supply security and reliability, and
- continued reliance on domestic and international markets is unable to deliver a similar outcome.

Any proposals for governments to intervene in the operation of the fuels markets should be on the basis of a demonstrated market failure which the market or consumers cannot, or cannot efficiently, resolve.



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