
The Parliament of the Commonwealth of Australia

Report on Australia's oil refinery industry

House of Representatives
Standing Committee on Economics

January 2013
Canberra

© Commonwealth of Australia 2013

ISBN 978-0-642-79831-2 (Printed version)

ISBN 978-0-642-79832-9 (HTML version)

Cover image courtesy of *Thinkstock*.

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia License.



The details of this licence are available on the Creative Commons website:
<http://creativecommons.org/licenses/by-nc-nd/3.0/au/>.



Chair's foreword

Australia is a net exporter of energy and has a positive energy future. As the world's ninth-largest energy producer, Australia is the largest coal exporter and third largest uranium producer in the world. In future years, we are projected to be the world's second largest liquefied natural gas exporter, and are geographically well placed to cement our role as a leading energy supplier to our regional neighbours.

The oil refining industry is not experiencing the same growth as other areas of Australia's energy sector. The global oil refining industry is undergoing significant structural change. Larger, more efficient refineries are being established in the Asian region resulting in increased competitive pressures on refining operations in other regions. The expansion of refining capacity in Asia has led to the rationalisation of refining in established markets such as Europe and the United States of America.

Australia's domestic refining industry is similarly facing competitive pressures. Evidence shows that Australian refineries are not competitive when compared to the new and expanding mega refineries in Asia. The domestic context of high operating costs, ageing facilities, increasing sea miles for the transport of crude to the refineries, shallow berths that are not suitable for large crude carriers, increasing technical complexity needed for refining of the broad range of crude oil and the high Australian dollar, put Australia at a competitive disadvantage, resulting in the closure of some domestic refineries that are no longer commercially competitive.

Following the closure of the Clyde and Kurnell oil refineries, refinery capacity in Australia will decrease by about 28 per cent and leave five operating refineries. Domestic refiners will produce just over half the fuel consumed in Australia with the remainder being imported. Consequently, concerns have been raised about

the viability of Australia's oil refinery industry, and the potential impacts of declining domestic refinery capacity on the economy, energy security and employment in the sector.

The most pessimistic view was that this is the beginning of the end of Australian refining, and the most optimistic view was that there is a future for Australian refining, albeit under increasing competitive pressure. The committee noted that during the last decade the oil industry has invested over \$9 billion in its Australian refineries.

While Australia's proximity to the Asian region does pose some challenges for domestic refineries, it also provides opportunities to take advantage of Asia's surplus refining capacity and to continue to strengthen supply chains in the region.

The energy industry is in a state of change, both with the global rationalisation of the traditional liquid fuel industry, and the growth in alternative and new types of energy sources. Australia's liquid fuel needs should be seen as one part of our energy future, albeit an extremely important one. The market for liquid fuels is robust and, from the available evidence, it is operating soundly. Australia is well serviced by reliable and diverse supply chains.

The closure of the refineries will not lead to negative price outcomes for consumers. Australian fuel prices reflect an import parity price, which is the price in international markets. The Australian Competition and Consumer Commission was clear in its advice to the committee that as a result of import parity pricing, the retail price for petrol is not impacted by refinery closures.

The changes in domestic refining capacity to date will not impact on Australia meeting its liquid fuel requirements. There are reliable, mature and highly diversified international fuel supply chains, which provide Australia with economic security. The Australian Institute of Petroleum and refiners were also confident about the reliability of Australia's supply chains and infrastructure to continue to meet local fuel demands, as it has done over many decades.

It should be noted that while Australia has both crude oil reserves and a refining capacity it is not self-sufficient. In 2010–11 Australia imported around 83 per cent of its crude oil and other refinery feedstock. It has and continues to import both crude oil and refined fuels. Following the closure of the Clyde and Kurnell refineries, Australia will refine 50 per cent of its fuel needs onshore, predominantly from imported crude.

The Energy White Paper (EWP) noted that 'our lack of self-sufficiency and the prospect of further refinery rationalisation does not in itself compromise or reduce our energy security'.

Energy security is fundamental to Australia's prosperity. It helps to deliver the economic and social outcomes we expect. The National Energy Security Assessment (NESA) found that Australia's energy security situation is meeting Australia's economic and social needs, albeit with some emerging market policy uncertainties that could have implications for managing our current level of energy security.

Our liquid fuel energy security remains largely unchanged from 2009 and is assessed as high trending to moderate in the long term. High energy security is when the economic and social needs of Australia are being met. Long term trends reflect uncertainty in predicting that far ahead, but also reflect the likelihood that crude will have to be sourced from countries that are not geopolitically stable, and from non-conventional sources, which will be more expensive to extract.

As part of considering the economic impacts of refinery closures it is also essential and timely to note the importance of fuel quality standards and their bearing on environmental and health outcomes.

The committee noted concerns by stakeholders that the move towards imported refined fuel might reduce standards both in terms of environmental outcomes and quality control. While the committee is not in a position to assess the validity of the claims, it agrees that rigorous monitoring is important to ensure that imported refined fuels are meeting Australia's fuel quality standards. It is also worth noting that fuel standards are steadily improving in key oil refining countries from which Australia sources its refined products.

In respect to any implications of domestic refinery closures on Australia meeting its liquid fuel needs, evidence to the committee indicated that diversity of supply is at the core of Australia's energy security. The key to our high energy security is our access to well-functioning markets for liquid fuels and supply chains with a high degree of resilience. This means that Australia can source its liquid fuel needs from a diversity of sources so that if one source becomes unavailable other sources can meet demand.

The closure of some domestic refineries poses little threat in a market of rapid expansion in Asia leading to an oversupply that is likely to last for some time. It is less easy to predict whether maintaining a strong ability to refine crude, including our own, will be a necessary part of the energy security mix 20 years from now and, if so, whether Australia's aging refineries will be suitable and for how long and at what cost.

We do know that Australia is blessed with energy options and that energy security is enhanced by diversifying options, as long as the market is able to supply those options in an affordable and reliable way.

NESA provides a positive assessment about Australia meeting its energy security needs. In addition, there is an emergency response capacity to deal with the impact of a sudden oil supply shortage. At the national level, the *Liquid Fuel Emergency Act 1984* provides the Australian Government with the authority to prepare for, and manage, a national liquid fuel emergency. In addition, Australia is a member of the International Energy Association (IEA), which can provide coordinated measures by IEA member countries to increase supply and reduce demand.

As a net oil importer, Australia is obligated to maintain reserves of crude oil and/or product equivalent to 90 days of the prior year's average net oil imports. While Australia is not currently meeting this obligation, the Australian Government has acknowledged this issue and is already investigating options to address Australia's non-compliance.

While it is anticipated that domestic refinery closures will not impact negatively on price outcomes for Australians or on our energy security, unfortunately closures have, and will, result in job losses at specific refineries. Evidence presented showed that the people employed in the oil refinery industry are highly skilled, productive and, as is indicated by the average length of service, loyal.

The energy sector is a major employer providing work directly and indirectly for over 100 000 Australians, with jobs in the sector to grow by 3.9 per cent annually, for the next five years. However, employment in the oil refining sector diverges from the wider energy sector. At present, 5 500 people are directly employed in the sector with growth declining because of reducing refining capacity.

Where closures are inevitable, reducing undue stress and assisting workers to adjust to changing employment circumstances should be a priority for both industry and government. This can only occur when there is a level of certainty for workers and targeted support. To date, structural changes have occurred in a relatively orderly manner, with long lead times between closures being announced and workforce having to adjust. Efforts to redeploy and reskill displaced workers must remain a priority.

Despite the changes over the last decade and recent closures, evidence to the committee suggests that going forward there is a role for the Australian oil refinery industry, with groups acknowledging that some domestic refining capacity is a worthwhile complement to imports as part of having reliable, mature and diverse supply chains for liquid fuels.

Contents

Chair's foreword	iii
Membership of the Committee	x
Terms of reference	xi
List of abbreviations	xii

REPORT

1	Introduction	1
	Referral of the inquiry.....	1
	Background	1
	Objectives and scope of the inquiry.....	2
	Conduct of the inquiry.....	2
	Structure of the report.....	3
2	Australia's oil refinery industry.....	5
	Overview	5
	Industry changes.....	7
	Domestic refining capacity	10
	Challenges to Australia's competitiveness	12
	Conclusion	19
3	Domestic economic impacts of declining refining capacity	23
	Introduction	23
	Background	23

Discussion	27
Will supply chains meet requirements?	27
Import price outcomes for consumers	32
Energy White Paper – Liquid fuel market policy actions.....	36
Conclusion	37
 4 Energy security	 41
Introduction	41
Background	42
Energy White Paper	42
National Energy Security Assessment	44
Liquid fuels vulnerability assessment	47
Discussion	47
Australia's energy security outlook.....	47
Impact of refinery closures	50
Transport fuel needs	55
Market approach	56
Disruptions in the supply chain.....	58
Self-sufficiency	60
Role for government.....	61
IEA 90 day oil stockholdings	64
Conclusion	66
 5 Employment issues.....	 69
Introduction	69
Background	69
Discussion	71
Employment conditions	71
Employment in the sector and the impact of closures	73
Downstream impacts.....	75
Skills retention.....	76
Alternative employment opportunities	77
Conclusion	80

APPENDICES

Appendix A – List of Submissions	83
Appendix B – Hearing and Witnesses	85
Appendix C – List of reports.....	89



Membership of the Committee

Chair	Ms Julie Owens MP
Deputy Chair	Mr Steven Ciobo MP
Members	Mr Scott Buchholz MP
	The Hon Joel Fitzgibbon MP
	Mr Stephen Jones MP
	Dr Andrew Leigh MP
	Ms Kelly O'Dwyer MP
	Mr Craig Thomson MP

Committee Secretariat

Secretary	Mr Stephen Boyd
Inquiry Secretary	Ms Samantha Mannette
Senior Research Officer	Ms Zoë Smith
Administrative Officers	Ms Natasha Petrović
	Ms Carissa Skinner



Terms of reference

On 1 November 2012 the Minister for Resources and Energy, the Hon Martin Ferguson AM MP, referred the following terms of reference for inquiry and report by 5 February 2013.

1. Identify the current international and domestic trends and pressures impacting on the competitiveness of Australia's domestic oil refineries.
2. Investigate the impact of declining refinery capacity in Australia on the economy. This should include analysis of:
 - a) current supply chains and their effectiveness in meeting Australia's liquid fuel requirements;
 - b) import price outcomes for consumers from the current arrangements;
 - c) direct and indirect employment impacts;
 - d) any relevant information on the impact of the closure of Australian refineries, including on downstream activities.
3. Identify any potential issues for Australia's energy security from possible further closures of oil refinery capacity, noting the findings of the National Energy Security Assessment (December 2011).
4. Consider the implication of refinery closures on the associated workforce, including age profile, alternative employment opportunities and labour force mobility.



List of abbreviations

ACCC	Australian Competition and Consumer Commission
ACPMMA	Australasian Convenience and Petroleum Marketers Association
AIP	Australian Institute of Petroleum
AMWU	Australian Manufacturing Workers' Union
AWU	Australian Workers' Union
CERM	Co-ordinated Emergency Response Measures
CFMEU	Construction, Forestry, Mining and Energy Union
EWP	Energy White Paper
IEA	International Energy Agency
IPP	import price parity
LFE Act	<i>Liquid Fuel Emergency Act 1984</i>
LFVA	Liquid fuels vulnerability assessment
NESA	National Energy Security Assessment
NOSEC	National Oil Supplies Emergency Committee
RET	Department of Resources, Energy and Tourism

