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Ms Julie Owens MP  
Chair  
House Standing Committee on Economics  
PO Box 6021  
Parliament House  
CANBERRA ACT 2600

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Dear Ms Owens

BP Australia Pty Ltd (BP) welcomes the opportunity to assist the Committee with the Parliamentary Inquiry into Australia's Oil Refinery Industry. Please find enclosed our submission.

BP is qualified to respond to most of the Terms of Reference, but not all, and has restricted its comments where appropriate.

Yours sincerely

Richard Wise

bp



**SUBMISSION TO PARLIAMENTARY INQUIRY INTO  
AUSTRALIA'S OIL REFINERY INDUSTRY**

**BP AUSTRALIA PTY LTD  
19 November 2012**

BP is a fully integrated refiner-marketer of petroleum products. BP imports both crude oil and refined products, operates two refinery facilities (one in Queensland and one Western Australia), stores and ships product in terminals, sells products at the wholesale and retail levels and manages a national petroleum distribution network. BP's Australia-wide downstream operations cover the full range of products, including bitumen for roads, jet fuel to supply the military and civilian aviation industry, and diesel, which is used primarily in the resource sector, as well as the full range of fuels for road use by motorists.

### **Fuel and Energy Policy Principles**

BP believes the ongoing supply of secure, reliable and competitively priced fuel will rely on competitive international and domestic fuel markets operating within a stable government policy framework.

The volatility in world energy prices in recent times has primarily been determined by supply and demand factors, and more recently the global financial crisis. The daily movement in domestic fuel prices illustrates the impact of international and local market forces and exchange rate movements on local petrol prices.

Government policy that provides stable regulation, removes barriers to investment, improves access to resources and modernises tax structures will encourage the necessary investment in energy security. New policy development should drive efficiency, be fair and equitable, and not materially upset the basis on which previous investment decisions were made.

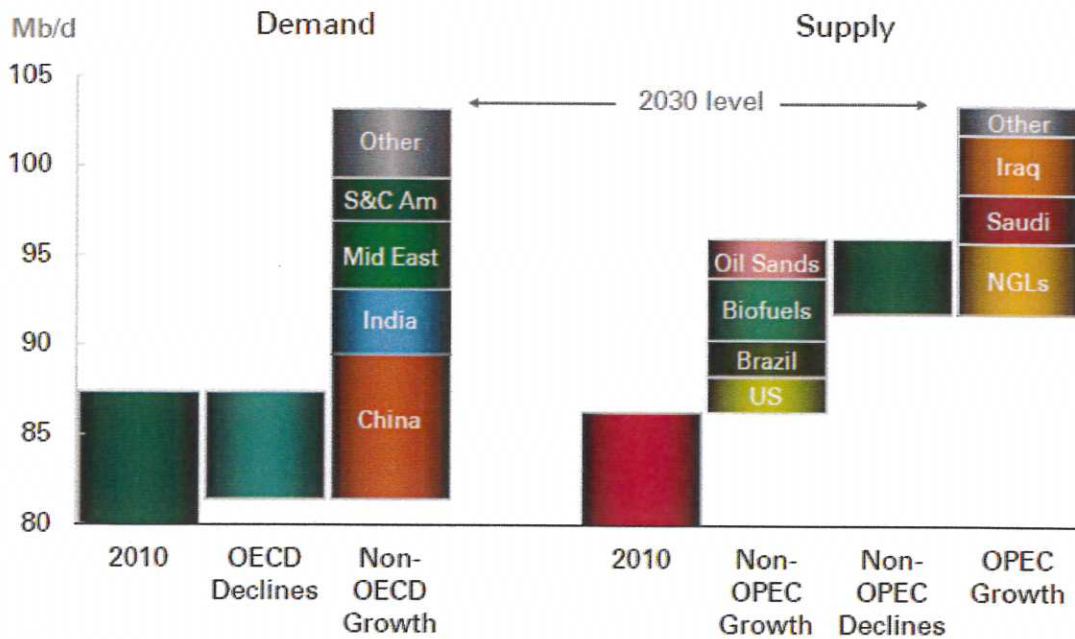
The solution to the challenges identified by the Inquiry's Terms of Reference lie within the efficient and timely development of energy resources, efficient functioning fuels markets, driving and harnessing the continuous improvements and efficiencies provided by technology, and the application of a balanced energy policy. The Federal Government's recent Energy White Paper addresses all of the above.

### **International and domestic trends in refining**

The industrialisation and economic re-emergence of Asia has dominated the global energy supply and demand trend.. It is BP's view that the growth in demand will continue for at least another 20 years and only be partially offset by a decline in demand from the OECD (*Chart one: BP Energy Outlook 2030<sup>1</sup>*). Importantly, much of the expected rise in supply of crude oil will come from OPEC, where output is expected to rise by 12 million barrels per day (12 Mb/d), while non-OPEC supply will continue to rise, growing by 5Mb/d due to strong growth in the Americas, – US and Brazilian deepwater, Canadian oil sands, and US shale oil.

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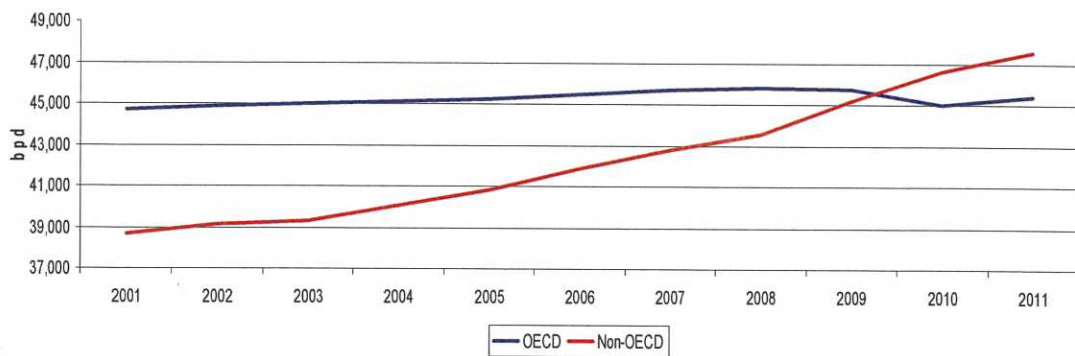
<sup>1</sup> BP Energy Outlook 2030, Page 22, Jan 2012 (www.bp.com)



Consistent with the increase in demand for energy from the non OECD, and Asia in particular, has been non-OECD investment in technologically advanced and large scale refineries (popularly referred to as 'mega-refineries').

A comparison of OECD and non-OECD refining output over the past ten years is displayed in chart two (*BP's Statistical Review of World Energy*<sup>2</sup>), and illustrates the growth in non OECD output to match, then over-take, the OECD in 2009-10.

Chart two - OECD vs non-OECD



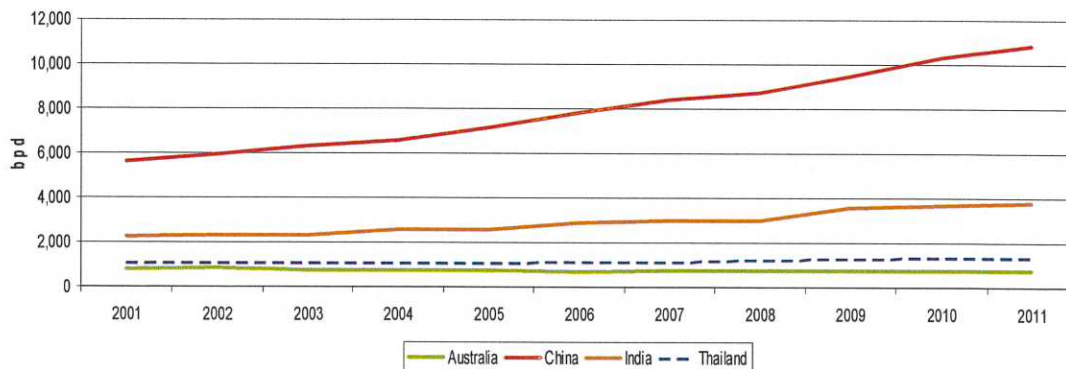
In this regard, BP's observation of the trends in international refining and the subsequent pressures on Australia's domestic facilities is similar to what has been widely reported in the media.

Refining capacity expansion is most prevalent in the South East Asia region, where over a ten year period significant *increases* in refining capacity have occurred in

<sup>2</sup> BP Statistical Review of World Energy, Page 16, June 2012 (www.bp.com)

China (92%), India (68%), Taiwan (37%), and Thailand (22%) compared to Australia, which has *decreased* refining capacity by 10% via refinery closures (Chart three<sup>3</sup>).

Chart three - Regional refining growth



For the 2012 calendar year, BP estimates that the net additions to refining capacity is likely to total 200,000 barrels per day (200 Kb/d), with large growth in some regions offsetting large reductions in others.

In detail, over the past year China has installed gross capacity of 800 Kb/d, with a similar amount added (or restored in the case of Japan) elsewhere in Asia Pacific. A further 700 Kb/d has been installed in other regions, giving gross global additions of 2.3 Mb/d for 2012.

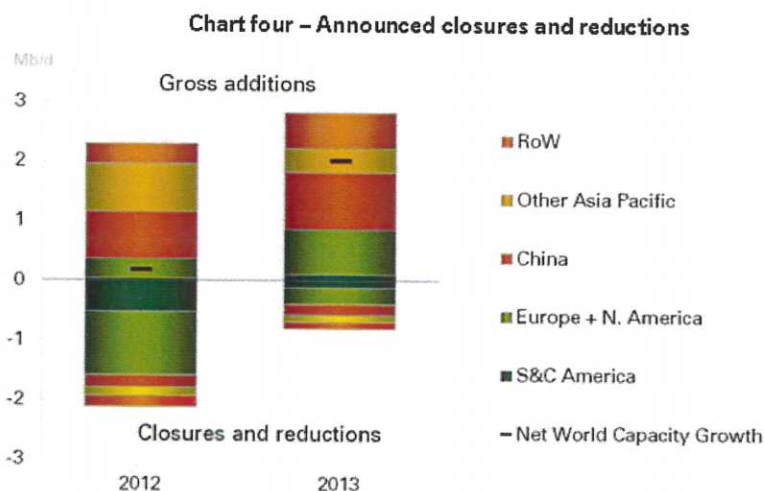
Offsetting these has been the closure of 14 refineries in Eurasia, the Americas and OECD Asia Pacific – including sites that closed in 2011 but that generate year-on-year capacity reductions in 2012. In total, 1.3 Mb/d of global capacity has been closed in 2012. A further 800 Kb/d has been lost due to temporary site closures, the closure of individual crude units and reductions in the rated capacity of others.

The small headline net capacity growth figure (200 kb/d) therefore hides a great deal of throughput re-optimisation and product trade rebalancing.

More importantly this pattern of regional expansion will accelerate in 2013 when global gross capacity additions total 2.8 million barrels per day (Mb/d) which is (so far) offset by only 800 Kb/d of announced site closures and capacity reductions. (Chart four<sup>4</sup>).

<sup>3</sup> BP Statistical Review, Page 16, June 2012

<sup>4</sup> BP Refining Outlook November 2012



A number of these new refineries include those commissioned and operated by National Oil Companies (NOCs), who are able to operate beyond the commercial constraints of other market participants.

This trend is confirmed to continue over the next four years at least, with an estimated 9.1 Mb/d in gross additions to capacity (5.3 Mb/d in net additions to capacity).

Again these investments are dominated in the non OECD region<sup>5</sup>:

<b>Gross Additions</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
N. America	231	498	20	7
S & C America	33	103	370	267
Europe	101	253	0	28
FSU	140	364	45	50
Africa	97	97	30	0
Middle-East	101	127	402	760
OECD Asia Pacific	329	91	20	45
China	795	963	888	710
Non-OECD Asia Pacific	469	317	226	190
<b>WORLD</b>	<b>2296</b>	<b>2813</b>	<b>2001</b>	<b>2057</b>

<b>Net Additions</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
N. America	-92	444	-50	7
S & C America	-490	-13	312	247
Europe	-640	34	0	28
FSU	-10	268	45	-10
Africa	62	82	30	0
Middle-East	101	127	392	700
OECD Asia Pacific	181	-29	-340	-100
China	600	781	823	690
Non-OECD Asia Pacific	469	317	226	190
<b>WORLD</b>	<b>181</b>	<b>2011</b>	<b>1438</b>	<b>1752</b>

<sup>5</sup> Internal analysis by BP Australia using public and private information

To help put this data in a local context, Australia has a relatively small refining sector when compared to the immediate region. For example Australia's largest refinery, BP Kwinana in Western Australia, with a published capacity of 146Kb/d, is dwarfed by the Jamnagar Refinery with a capacity of 668 Kb/d (operated by Reliance Industries in Gujarat India).

Further, the Jamnagar Refinery is part of a larger refining hub within India, which includes another recently commissioned 580 Kb/d refinery (to total 1.2 Mb/d) capable of processing over 20 types of crude and exporting to over 26 countries.

### **Competitiveness of Australian refining**

Some of our locally based competitors have closed, or are closing their refineries. While not privy to their decision making it is BP's experience that Australian refining does suffer a competitive *disadvantage* which is born from a higher operating cost-base and lack of economies of scale compared to regional competitors.

Whilst the materiality of these higher costs present themselves in a number of ways they are dominated by labour costs, the relative age and scale of Australian refinery assets and the high Australian dollar.

#### *Labour costs*

Benchmarking Australian refineries to South East Asian peers indicates that while productivity per person is higher, this is more than offset by higher cost structures. The Australian personnel cost index (that is, the cost of labour per barrel produced) is some four times more expensive in Australia than in the region. This is not just a challenge in comparison to Asian economies. On a global scale, skilled worker costs in US and European competitors are now substantially lower on a USD equivalent basis through a combination of exchange rate movements and the very high domestic wage inflation over recent years, which have not been compensated for in productivity improvements. This is compounded by comparatively generous non-cash benefits of domestic labour and its impact on productivity.

As labour is the second largest cost to a refinery (following crude feedstock – to which all refineries compete equally), Australia's relative expense is material to the commercial viability of a refinery. This viability is exacerbated by the relatively small size of refining assets compared to mega-refineries which are able to leverage the fixed costs of labour over a much larger product output.

#### *Relative Age*

BP's two refineries in Kwinana (Perth) and Bulwer Island (Brisbane) were commissioned in 1955 and 1965 respectively. Whilst numerous expansions and upgrades have taken place over the years, the technology used in these refineries is different to that of contemporary designs with improved energy and catalyst efficiency.

The age and design of BP's Australian refineries result in higher levels of maintenance (with associated labour cost impacts) to maintain integrity.

Furthermore there is the requirement to continually invest capital to ensure the ongoing operational and environmental integrity of refining infrastructure, as well as the attainment of Australian fuel standards. This investment is significant for each refinery (more than \$50 million per year each), yet it rarely relates to commercial advantage.

#### *High Australian dollar*

As refiners purchase crude oil in US dollars (USD) and sell refined fuel products in Australian dollars (AUD) based on market-set import parity pricing, the exchange rate between the two currencies has a very significant impact on the economics of Australian refineries.

As is widely known the USD has declined in value to the AUD over the past decade and this has put local refining margins under significant additional pressure, which in turn creates a more difficult competitive landscape for domestic refiners as regional competitors operate with economic currencies in many cases linked directly to USD.

#### **Economic impacts of declining refinery capacity**

In submissions provided elsewhere, BP has consistently made the point that the secure supplies of energy, as an input into the domestic economy, should remain a priority of public policy making. Access to secure and competitively priced energy has helped support Australia's economic growth for decades and will continue to support national prosperity into the future. Asia does not just want our LNG or coal, it wants our iron, gold, copper, nickel; our alumina, bauxite and zinc; our beef, wheat and wine; and our expanding services sectors.

These industries need fuel and a failure to provide it securely and at a fair market price would affect the economy across all sectors.

There can be no economic security for Australia without energy security, and energy security requires stable investment frameworks in order to attract and facilitate investment in operational energy systems.

Fortunately Australia has benefitted from industry deregulation over recent decades, as the level of state control has been gradually unwound by governments acknowledging the role a more dynamic and market driven industry plays in sustaining a competitive, secure and growing economy.

The culmination of successive downstream reforms has allowed petroleum markets to reflect the real cost of product based on international pricing of crude oil and petroleum products. As a result:

- petrol pricing in Australia is one of the most transparent of all commodities,
- Australia has one of the most competitive retail markets environments in the OECD;
- the market is subject to competition at every stage of the supply chain, from crude to the pump; and



- the industry has evolved into a sophisticated, resilient, dynamic, innovative, competitive and adaptable supplier of energy.

*Effectiveness of Australia's current supply chains*

BP agrees with the 2011 NESA finding that Australia has "*robust and flexible supply chains with a significant degree of resilience*" and that as imports of petroleum products rise due to demand growth and domestic refinery consolidation they "*are not expected to have a material impact on Australia's liquid fuel security in short to medium term*"<sup>6</sup>.

BP strongly contends that the NESA conclusion is, in large part, due to the extensive investment and ongoing optimisation of the distribution and terminal networks made by the industry in its response to market reforms.

Certainly Australia is neither self-sufficient in crude oil nor refining capacity, and we will be increasingly reliant on international markets and overseas suppliers. However to provide some context, BP currently imports more than 100 cargoes of refined product into Australia each year and we do not envisage significant problems with increasing these volumes due to a consolidation of the refining industry and/or market growth.

While maintaining a flexible and robust supply chain against a backdrop of refining consolidation does represent a challenge for policy makers and industry (such as securing the required investment in import infrastructure to accommodate increased levels of imports), BP is confident there is more than enough refining capacity available in the region meet market needs.

Indeed, consistent with the need for a diverse supply chain BP maintains trading agreements with up to 50 independent (non BP) refineries in the region at any one time.

*Potential issues for Australia's energy security from possible further refinery closures*

BP endorses the National Energy Security Assessment (NESA) 2011 findings that Australia's liquid fuel security is assessed as "high", trending to "moderate" in the longer term in recognition of factors including the investments required for enhanced import and storage infrastructure.

Ultimately it is less relevant, in BP's experience, whether the imports are crude oil or refined products. Geopolitical concerns and disruptions to shipping routes are raised from time to time but in around 100 years of peacetime importation of both crude and refined product into the Australian market, BP has not experienced a significantly concerning supply disruption that would warrant overt market intervention.

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<sup>6</sup> National Energy Security Assessment, Page 8, Dec 2011 ([www.ret.gov.au](http://www.ret.gov.au))

*Import price outcomes for consumers*

Given the recent publicity concerning the impact of refinery closures on pricing for consumers it should be reiterated that ex-refinery prices are based on the landed price of Australian fuel grade standard product, ie - the Import Parity Price (IPP). If a refinery tried to sell product above the IPP other companies would simply import the product. Thus refinery sales and margins in Australia are governed by the landed cost of internationally traded petroleum products as reflected in the IPP.

BP believes that the petroleum industry in Australia is highly competitive, contestable at all levels, and the price build ups are among the most transparent of any industry in the country. The ACCC stated in their most recent fuel monitoring report that "Australian consumers pay a price for petrol that is, on average, reflective of the relevant benchmark prices"<sup>7</sup> and "there is evidence of competitive tension"<sup>8</sup> in the industry.

There is nothing to be gained, and much to be lost, by market intervention and price regulation under the guise of 'energy security'. In BP's view, any intervention should be rejected on the basis that it will raise the cost of petroleum products to Australian consumers and businesses, and is more likely to reduce, rather than increase, infrastructure investment and competition in the industry,

From a consumers perspective the most significant impact on prices under the current arrangements has been prevalence of recent regulatory creep that has impacted on other areas of the industry.

Most notably the New South Wales biofuels mandate which IPART has reported is forcing a large number of motorists up the octane scale and into premium grade fuels<sup>9</sup> and, as reported by the ACCC, a narrowing of the price differential between E10 and RULP.<sup>10</sup>

Similarly the New South Wales Government's recent changes to its Fair Trading Act which will require the industry to replace its price boards (for no demonstrated benefit), a move that will require BP to invest an estimated \$40 million in an activity that will fail to produce a revenue gain or growth.

Another example of regulatory issues that have potential to impact current domestic prices and supply security are the recent changes to Australia's shipping laws impacting BP's optimised supply chain costs and making it more difficult to do business in Australia.

*Employment at BP refineries*

BP refineries in Kwinana and Bulwer Island directly employ some 455 and 373 employees respectively. Non-direct labour (such as specialist engineering, maintenance and associated services) accounts for approximately another 500

<sup>7</sup> ACCC Monitoring of the Australian petroleum industry, Page xix, December 2011

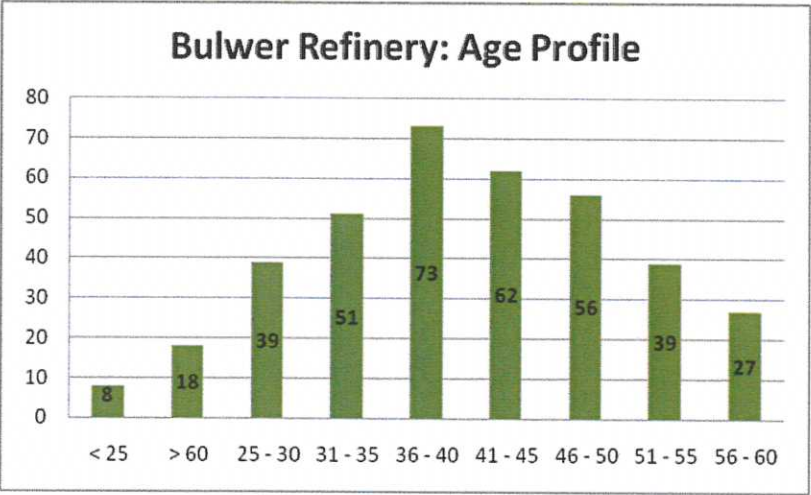
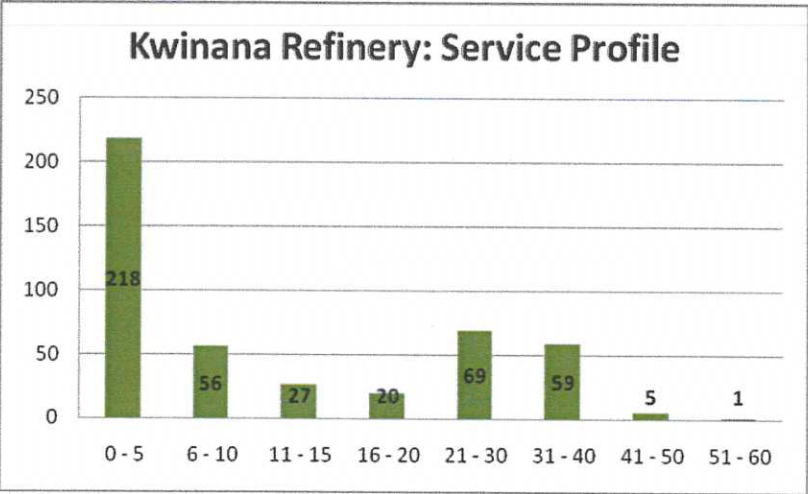
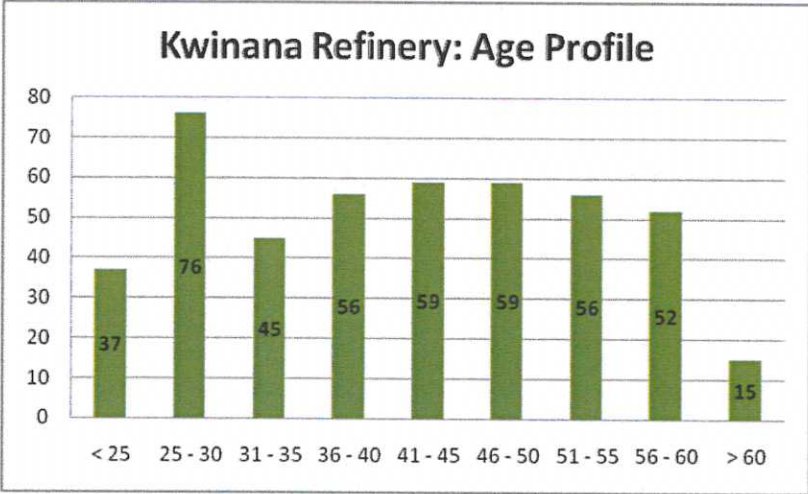
<sup>8</sup> ACCC Monitoring of the Australian petroleum industry, Page xxi, December 2011

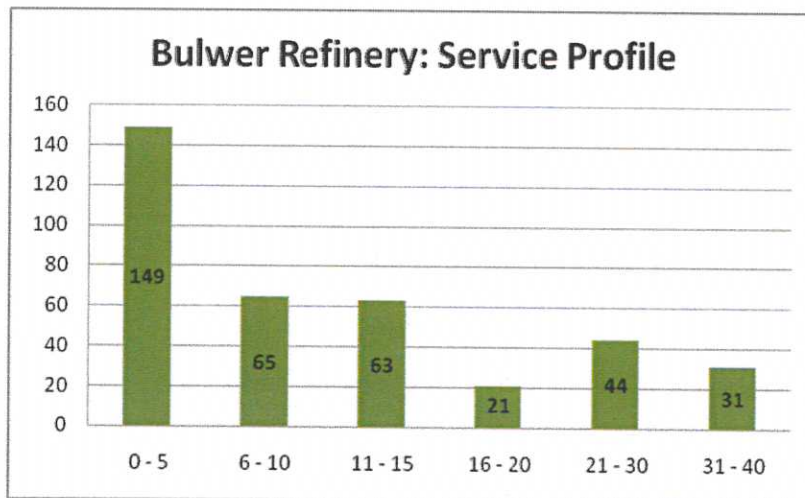
<sup>9</sup> NSW IPART, Ethanol supply and demand in NSW, Page 3-4, March 2012

<sup>10</sup> ACCC Monitoring of the Australian petroleum industry, Page 100, December 2011

employees at each site. This indirect labour peaks with a further 500 employees during shutdown activities (known as 'Turnaround' events), where the refinery ceases production for intensive maintenance, typically on a 4-yearly basis.

Demographic details for the Kwinana and Bulwer Island refineries are below:





Both refineries are characterised by balanced age profiles with longer than average lengths-of-service. Apparent in both charts is an increase in recruitment over the past five years in response to higher (than historical) turnover and preparation to transfer knowledge from a mature workforce readying for retirement.

Both refineries source labour from either the Perth or Brisbane market. Both of these markets are highly buoyant for technical and professional engineering skills due to the ongoing growth and sheer scale in onshore and offshore oil & gas and resources sector activity, which has driven high levels of wage inflation in recent years.