

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Australia

Biofuels Annual

2012

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Report Highlights:

Biofuels production for 2012 is estimated at 555 ML, comprised of about 440 ML of ethanol (largely unchanged from 2011) and 115 ML of biodiesel (up from 80 ML in 2011). Imports of Biodiesel from the US are subject to a "Countervailing Duty" and "Dumping Duty" which is expected to be in place for a total of five years and, per Post calculations, would expire on April 18, 2016. Despite the implantation of these measures, official trade data shows the continued importation of biodiesel from overseas suppliers, including the US and Canada. On September 13, 2011 a Memorandum of Understanding was signed between the United States of America and Australia to conduct research and development regarding the safe use of sustainable aviation alternative fuels.

Post:

Canberra

Summary:

The Australian economy continues to evidence strong growth, fueled by the rapid expansion of the minerals and energy sectors. Australia's overall energy production continues to exceed domestic energy consumption, making Australia a significant net energy exporter. In terms of energy sustainability, Australia's proven reserves of brown coal, black coal and conventional gas are expected to last 500 years, 100 years, and 60 years, respectively.

Despite the energy surplus, Australia is a net importer of liquid hydrocarbons (including crude oil, liquid petroleum gas (LPG) and other refined and semi-refined petroleum products). Australian reserves of crude oil and condensate represent only a small proportion of total world reserves.

In 2012, Australia was estimated by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), to have produced 26,856 million liters (ML) of crude oil and condensate, up from 25,192 ML for 2011. Exports of crude oil were estimated at about 20,718 ML (also up on the previous year) and imports estimated at 32,125 ML. This places Australian consumption of crude oil and condensate at around 38,263 ML. Long term projections have production peaking at 30,221 ML in 2013/14, exports peaking at 22,341 ML in 2013/14 and imports peaking at 30,803 ML in 2016/17.

Biofuels production for 2012 is estimated at 555 ML, comprised of about 440 ML of ethanol (largely unchanged from the previous year) and 115 ML of biodiesel (up from an estimated 80 ML in 2011). According to an Australian government report, biofuel accounts for around 0.4 percent of total transport fuel consumption.

Actual biofuel production is dependent upon the proportion of capacity that can be utilized by biofuel plants. Factors that influence this are profitability, supplies of feedstock, competition from imports and plant shut downs (due to maintenance, technical difficulties or discontinuation of production). According to industry sources, capacity utilization varies widely between sources. Some sources have quoted biodiesel capacity at levels as high as 500ML – however, Post believes that much of that capacity is unlikely to enter production and so has only counted a smaller proportion of this as capacity.

On June 22, 2010 Australia's Customs and Border Protection Service launched concurrent dumping and countervailing duty investigations into U.S. exports of pure biodiesel and biodiesel blends.

Following this investigation, Australian customs published a dumping notice and a countervailing notice. This decision was appealed, however, the appeal was unsuccessful and the decision to impose measures upheld. According to official trade statistics, imports of biodiesel continue despite the recently introduced protective trade measures. Industry sources suggest that the importation of biodiesel will likely continue unabated.

1. Policy and Programs

International

Australia has been a member of the APEC biofuels task force since its inception in 2006. This task force was created by APEC in response to high oil prices in that same year. Other member countries of the APEC biofuels task force include Canada, Japan, Korea, New Zealand, Singapore, Chinese Taipei, Thailand, the United States and Vietnam. Malaysia, Mexico and Brazil subsequently joined the group. The main objective of the biofuels task force is to assist APEC members to better understand the potential for biofuel to displace oil in transport.

Federal

Historically, the Federal government has had a broad range of policy instruments that affect the production of biofuels. These instruments include a production target, fuel taxes (excise), fuel quality standards, grants and labeling (as reported in GAIN Report AS 7032). The production target was set at 350 ML and was surpassed some time ago.

Both locally manufactured ethanol and biodiesel continue to enjoy effective freedom from Federal excise taxes, currently applied to diesel and petrol at AU\$0.38143 per liter. Both ethanol and biodiesel pay excise, if produced in Australia and "excise equivalent customs duty" if imported from overseas at a rate of AU\$0.38143 per liter.

Biodiesel is reimbursed AU\$0.38143 per liter through the "Energy Grants (Cleaner Fuels) Scheme" which is administered by the Australian Taxation Office. This assistance is applied to both locally produced and imported biodiesel.

Under the new alternative fuels legislation the "Energy Grants (Cleaner Fuels) Scheme" was scheduled to cease on December 1, 2011. However, Post understands that plans to have biofuel effectively taxed have been shelved and consequently biofuel is expected to continue to enjoy freedom from the Federal excise tax.

Under this proposal, Post understands that the phase-in of federal excise tax would not begin until 2021 for Ethanol or Biodiesel. Methanol and renewable diesel are also exempt until 2021; however Australia is not producing commercial quantities of these fuels at present.

The Federal Government has introduced carbon tax legislation that is scheduled to take effect from July 1 2012, and although complex, its affect on the biofuel industry will become clearer only over time. Under this legislation, biofuel is regarded as "zero rated" for carbon emissions and so potentially favored by larger users when considering carbon output into the future. Industry sources believe that domestic consumption of biodiesel could increase over time due to the new carbon tax arrangements.

State

From October 2011, the NSW State government increased its mandate for ethanol inclusion to six percent, from the previous level of four percent. Under this mandate, each supplier of wholesale fuel for sale is required to provide evidence that total ethanol sales equal or surpass six percent of total sales. According to sources, the NSW mandate was expected to be the primary driver for growth in ethanol demand in Australia. A biodiesel volumetric inclusion mandate has been set at one percent.

The state of Queensland has suspended the implementation of a five percent volumetric inclusion mandate by 2011 (From December 31, 2010 onwards). Industry sources remain hopeful that a mandate will be set in the second half of 2012.

Trade Policy

All biodiesel and ethanol imports to Australia attract a Customs Duty rate of AU\$0.38143 per liter. However, countervailing and dumping duties have been added to biodiesel imports from the United States following concurrent dumping and countervailing duty investigations.

On June 22 2010, Australia's Customs and Border Protection Service (Customs) launched concurrent dumping and countervailing duty investigations into U.S. exports of pure biodiesel, specifically, B99, and biodiesel blends above 20 percent, during the period from April 1, 2009 through March 31, 2010.

Customs found that biodiesel exported from the United States to Australia were:

- Dumped with margins of 40 percent
- Subsidized with margins of 55 percent
- A cause of material injury to the Australian industry
- Likely to cause further injury if trade continued

As a result of this investigation, a "Countervailing Duty" and a "Dumping Duty" were imposed on imports of biodiesel from the US. Post has been advised that, in order to determine the total duty payable on imported bio diesel, the "Countervailing Duty" is added to the "Dumping Duty" which is then added to the difference between the Dumping export price and the "Ascertained Export Price". Under the current dumping and countervailing duty schedule, the "Countervailing Duty", "Dumping Duty" and "Ascertained Export Price" all remain confidential. Post understands that imports must be paid for in full prior to Australia's Customs and Border Protection Service applying the confidential duties.

<http://www.customs.gov.au/webdata/resources/files/110418-D27101180-110418.pdf>

According to Customs officials, the decision to take measures against imported biodiesel was appealed by an affected party – however, following an inquiry, the decision to take measures was "affirmed". The "Countervailing Duty" and "Dumping Duty" is expected to be in place for a total of five years and, per Post calculations, would be due to expire on April 18, 2016.

Post has been advised that prior to the expiration of the imposed measures, as a matter of course, Customs would likely write to affected parties to ask affected parties to "apply for a continuation of measures".

Despite the implantation of these measures, official trade data shows the continued importation of biodiesel from overseas suppliers, including the US and Canada.

2. Bio Ethanol

2.1 Production

Actual ethanol production is estimated at 440 ML for CY 2012, unchanged from the estimate for the previous year. This figure remains in-line with the Australia Biofuel apex industry body. Industry sources believe that production is unlikely to increase in 2013, despite the prospect of two new ethanol plants coming on-line in 2012.

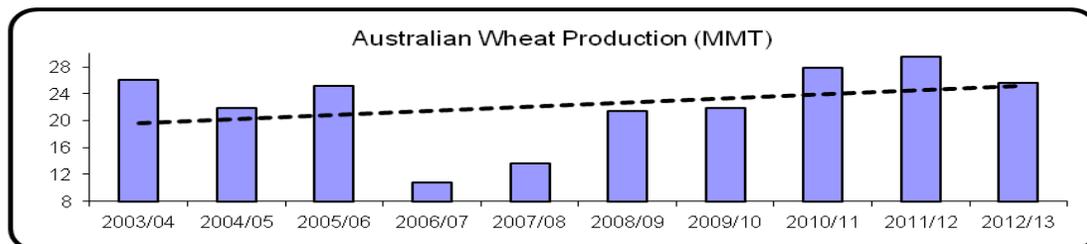
Production is expected to increase over the longer term as availability of feedstock improves following the conclusion of a near decade-long drought. Previous large increases in production have been driven by the state government mandate in NSW, however future increases in production will likely rely upon increased feedstock supply and improved productivity.

Conventional & Advanced Bioethanol (million liters)						
Year End July	2007	2008	2009	2010	2011	2012
Production	84	149	203	380	440	440
Imports	0	0	0	0	0	0
Exports	0	0	0	0	0	0
Consumption	84	149	203	380	440	440
Ending Stocks	2	3	4	5	6	7
Production Capacity (Conventional Fuel)						
No. of Biorefineries	4	4	4	3	3	3
Capacity	120	189	456	440	440	456
<i>Source: Australian Government, the Department of Resources, Energy and Tourism/Post estimate</i>						

Beyond CY 2012 Post expects capacity and production to grow slowly without new state inclusion mandates or increases in existing mandates. Any significant increase in demand is expected to be driven by state mandates such as the mandate in NSW. However, political pressure for larger mandates appears to be easing somewhat and this may constrain growth into the future.

Suitable feedstock supply for biofuel production, such as grain, reached historically low levels during the prolonged and severe drought which began in 2002. Post estimates have domestic wheat supply at record levels during 2010 and 2011.

Grain prices remained high throughout 2011 and into 2012 due to strong export demand, despite a sharp increase in domestic production. The benefits to biofuel producers of increased grain inventories have been somewhat offset by continued high grain and stockfeed prices.

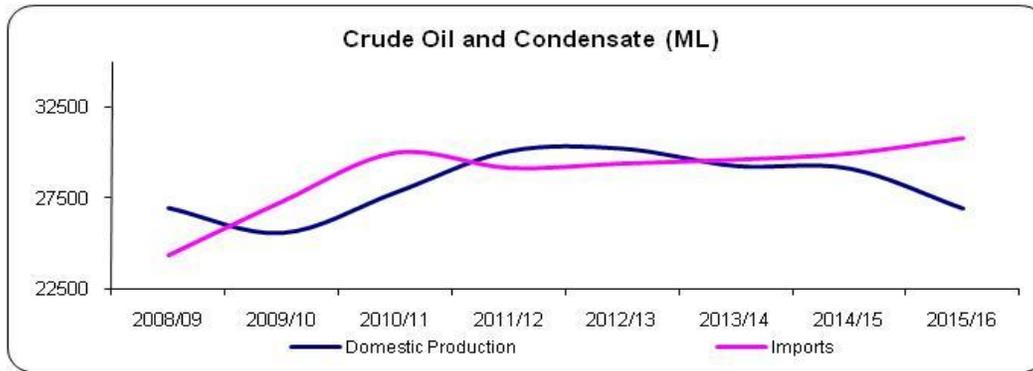


Source: ABARES Data

2.2 Consumption

According to the department of Resources Energy and Technology (RET), energy consumption in Australia is growing at a slower pace than domestic energy production, as exports have driven production and have partially displaced domestic consumption.

Despite increased production and exports, the “reserves to production” ratio for energy, including oil and gas, has remained relatively steady over the past ten years. However, Australia continues to rely on imported fuel for transport purposes.



Source: ABARES Data

According to government reports, the demand for diesel has been growing roughly three percent faster than automotive gasoline which has been growing at a rate of about 1.2 percent. Despite the growth in diesel fuel consumption, the overwhelming majority of new cars sold in Australia are run on automotive gasoline.

Retail prices for transport fuels have fallen from record highs in 2008 and this is expected to constrain larger increases in production of biofuel over the medium term. This indicates that consumption has fallen to be more in line with supply. However, since the global financial crisis, prices have firmed slightly and are expected to continue to rise slowly for the foreseeable future.

According to ABARES, Australia currently has the lowest pre tax price for transport fuel and the fifth lowest post tax price in the OECD (behind Mexico, the United States, Canada and New Zealand).

2.3 Trade

Australia has placed tariffs on imported ethanol which, according to sources, can usually be imported below the cost of local production. The excise equivalent customs duty of \$A 0.38143 cents per liter (which, unlike biodiesel, cannot be reimbursed by government programs) reduces the competitiveness of imported fuel ethanol, particularly from Brazil. The production cost of Brazilian ethanol is reported to be well below the cost of production for Australian ethanol. Furthermore, according to government sources, imported ethanol also attracts a tariff of five percent. These measures have effectively prevented commercial trade in ethanol for consumption as transport fuel.

3. Biodiesel

3.1 Production

Post estimates biodiesel capacity for 2012 at 215 ML, while production is estimated well below capacity at 115 ML. There are some estimates which put biodiesel capacity well above 500 ML but post believes much of this capacity is unlikely to come into production.

Conventional & Advanced Biodiesel (million liters)						
Year End July	2007	2008	2009	2010	2011	2012
Production	43	54	98	80	80	115
Imports	5	4	11	8.5	25	20
Exports	0	0	0	0	0	0
Consumption	47	58	109	88.5	105	125
Ending Stocks	2	2	6	7	9	10
Production Capacity (Conventional Fuel)						
No. of Biorefineries	7	9	8	6	7	7
Capacity	174	136	283	215	215	280
<i>Source: Government of Australia, the Department of Resources, Energy and Tourism/World Trade Atlas/Post Estimate</i>						

Supplies of by-products for biodiesel, such as tallow, will likely improve in the future due to improved seasonal conditions and the prospect of fatter slaughter cattle. However, this will likely be balanced by lower slaughter figures. Supplies of waste vegetable oil, the other large feedstock source for biodiesel, will likely remain largely unchanged.

3.2 Biodiesel Trade

Post advises that official trade data suggests that imports of biodiesel have continued to grow despite the Australian Customs Service published dumping notice. Post estimates biodiesel imports for 2011 at 25 ML. Post advises that it is difficult to put an exact figure on biodiesel imports due to inconsistent tariff code classification and some imports not being used as biodiesel. Some sources argue that biodiesel imports could have been as high as 35 ML in 2011, if other tariff codes are taken into account.

Total Australian Imports of Biodiesel (Liters)						
	2006	2007	2008	2009	2010	2011
Biodiesel Component Of Blends Of Biodiesel And Oth HS 3824.90.30.46	0	1,599,210	1,367,340	18,069	0	0
Biodiesel Manufactured By Chemically Altering Vege 3824.90.20.20	2,144,814	5,154,193	2,523,420	11,104,577	8,531,071	24,981,584
Total Liters	5,154,193	4,122,630	12,471,917	8,549,140	8,531,071	24,981,584

Industry sources advise that a high Australian dollar is supporting imports from the United States despite the recently introduced customs measures. Re-refining demand within Australia is supporting imports of biodiesel from Indonesia.

Post has used HS codes 3824.90.30.46 and 3824.90.20.20 to estimate imports. Post advises however, that other biodiesel imports may have been recorded under other HS codes (such as 2710.11.80.11, 2710.19.80.21 and 2710.91.80.82).

Australian Imports of US Biodiesel from the United States (Liters)							
	2005	2006	2007	2008	2009	2010	2011
HS 3824903046 Biodiesel Component Of Blends Of Biodiesel And Oth	0	0	0	0	18,069	0	
Biodiesel Manufactured By Chemically Altering Vege 3824902020	0	0	1,204,232	0	11,104,107	8,531,071	12,419,293
Total Liters	0	0	1,206,239	0	11,124,185	8,533,081	12,419,293

4. Advanced Biofuels

Investigations conducted by Post have not revealed any significant commercial production of advanced biofuels. However, there has been some U.S. investment in a commercial algae production facility in Western Australia. The algae extracted from the production facility will be used to produce several different product lines including biodiesel. The company is in the final phase of testing and ramping up to begin commercial production sometime in 2012. Industry sources, however believe that Australia will not likely lead the world in production of advanced biofuels but will likely follow other countries. However, many new developments have occurred in advanced fuel sources for non-transport energy such as landfill gas, sewerage gas and wood waste.

5. Bio Mass for heat and power

According to ABARE, renewable energy accounts for around five percent of Australia's total energy consumption. Biomass electricity production in Australia is provided (almost exclusively) by the Australian sugar industry which produces its own electricity (as well as a surplus) using Bagasse as a fuel source. Bagasse accounts for over one third of renewable energy production according to ABARE data.

The primary driver of Australia's renewable energy development is the Australian Government's Mandatory Renewable Energy Target (MRET) which aims to increase Australia's electricity generation from renewable sources by 9,500 gigawatt hours per year by 2010. The source which have experienced the greatest growth under this policy are wind and solar. Recent legislation, passed in August 2009 commits the Australian government to ensuring that 20 percent of Australia's electricity is generated from renewable sources by 2020.

POLICY INITIATIVES FOR BIOFUEL

Memorandum of Understanding

On September 13, 2011 a Memorandum of Understanding was signed between the United States of America and Australia to conduct research and development activities to support the safe use of sustainable aviation alternative fuels to meet the demands for safe and efficient use of such alternative fuels. The principal objectives of this MOU are to provide opportunities to exchange ideas, information, skills and techniques to collaborate on problems and projects of mutual interest in relation to sustainable aviation alternative fuels development, production and use, with both parties having a collective interest in moving toward carbon neutral or carbon negative growth for aviation, and to enter into cooperative agreements.

CSIRO Report

The global aviation industry has set greenhouse gas emission targets, aiming to achieve carbon neutral growth from 2020. The Commonwealth Scientific Industrial Research Organization ([CSIRO](#)) released a report "Flight Path to Sustainable Aviation".

The report outlines key challenges and opportunities for sustainable aviation fuels along with recommendations for the future. The aviation sector continues to meet rising demand for air transport services and this is driving the need to diversify and conserve fuel supplies into the future, as well as working towards reducing its environmental impacts, particularly greenhouse gas emissions.

The Great Green Fleet

A plan has been released by the US Navy to have an entire fleet of warships running on biofuels by 2016 – reported as "the great green fleet". This plan, which was announced in Australia at an international biofuels conference, will require the US Navy to source biofuel from Australian producers. According to media reports, this plan potentially reduces the need to source fuel from countries which are unstable or unfriendly.