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AUSTRALIAN ETHANOL LIMITED

Australian Ethanol Limited is a publicly listed company on the Australian Stock Exchange and in April 2004 acquired the company Australian Biofuels Pty Ltd.

Australian Ethanol Limited's business model is to develop ethanol plants in conjunction with local organisations such as cooperatives, local agricultural service groups and grain aggregators. This model enables local rural communities to invest in a value adding industry, while also increasing the security of supply of key feedstock for the company's planned ethanol plants.

The intent of Australian Ethanol Limited is to project finance, construct, and operate three ethanol production facilities at Condobolin, Coleambally and Oaklands, New South Wales. These three separate applications follow the development approval for Australian Ethanol Limited's first ethanol production facility at Woorinen South near Swan Hill in the north-west of the State of Victoria. It was approved for the annual production of 100 ML per year on 28 September 2004 and construction is planned to commence on 21 August 2006. Australian Ethanol Limited is in discussions with all of the major fuel companies in regard to ethanol off-take, in addition to pursuing regional and export market sales for the three projects.

The demand for ethanol blended fuel in the Australian fuel or motor spirit market is driven by global vehicle compliance with international emissions and vehicle efficiency legislation, cleaner fuel policy and energy security issues faced by consumer countries including Australia. More recently the increase in international fuel prices has triggered the fuel ethanol debate in Australia and internationally.

The fuel ethanol industry in Australia forecasts substantial demand and growth from 2008 onwards. Australian Ethanol Limited intends to be an established producer and distributor of ethanol at that time and be positioned to participate in the anticipated growth of market demand.

1.3

ETHANOL FUEL PRODUCTION OVERVIEW

Ethanol is a liquid fuel, produced principally from natural products, which is non-toxic, water soluble and highly combustible. Ethanol has traditionally been used as a fuel and solvent for hundreds of years and has also been used as drinking alcohol. When blended with petrol, ethanol can displace benzene and other octane enhancers which are known toxic gasoline components and carcinogens. Ethanol fuel blend improves combustion efficiency, lowers tail pipe emission in vehicles and reduces pollutants. Ethanol is renewable and a sustainable option for use in conjunction with petrol, particularly to meet more stringent Australian fuel standards post 2006.

The production of ethanol involves the receipt and storage of grain, milling of the grain to flour followed by a cooking, fermentation and distillation process.

The ethanol production process converts starch which comprises up to 75 per cent of the grain seed to sugar and subsequently to ethanol. The ethanol to be produced on the site will be suitable for use as:

- a fuel blend stock, which is dehydrated (water removed), stored and at the time of dispatch to market mixed with a small percentage of petrol ('denatured'). The majority of ethanol produced by the plant will be for this purpose;
- lesser amounts of export grade industrial ethanol, which requires further processing than fuel blend stock to remove the low traces of impurities; and
- a small proportion of extra neutral (potable) ethanol – requiring further processing to remove impurities.

The co-product of the ethanol production process is wet distiller's grain and solubles (WDGS), which is sold as stockfeed and is in high demand in feedlots, dairies and piggeries. The distiller's grain contains up to 70 per cent water and for commercial reasons is sold within 200km of the production facility. WDGS has a useful shelf life of less than a week.

Australian Ethanol Limited has an off-take arrangement with James & Sons (Grain Merchants) Limited for the off-take or payment of wet distiller's grain from the Condobolin site. James & Son is an international feed marketing firm which will remove and on-sell the WDGS to the Central West Region's intensive agriculture industry.

1.4 CONSULTATION

Representatives from Australian Ethanol Limited and ERM met with the General Manager and other council officers from Lachlan Shire Council to discuss the proposed project on 17 July 2006. Council expressed support for the project with regards to the economic benefit to the region and did not identify any specific areas of concern at this initial stage.

Following lodgement of the preliminary assessment, Australian Ethanol Limited intends to hold a planning focus meeting with the Department of Planning (DOP), Council and relevant government agencies to discuss the project, so that Council, the departments and agencies are able to provide informed input into the Director-Generals requirements for the preparation of the EAR.

The structure of the preliminary assessment is as follows:

- Chapter 1* provides an introduction to Australian Ethanol Limited and the proposed project and sets out the purpose of the report.
- Chapter 2* provides a description of the site and surrounding area.
- Chapter 3* provides a description of the proposed project.
- Chapter 4* outlines the statutory context in which the proposal is to be assessed.
- Chapter 5* provides a preliminary assessment of the project issues such as water, noise, air quality, traffic and ecological impacts, provision of services and potential social impacts.
- Chapter 6* provides a summary of the key environmental issues of the project and a conclusion.

2.1 LOCATION

The site is located off Micabil Road, Condobolin approximately 460 km west of Sydney. The Condobolin township is located approximately 5 km east of the site in close proximity to Mount Tilga the geographical centre of New South Wales.

Condobolin is a country town of approximately 3,500 people in the Central West Region of NSW and is located at the junction of the Lachlan River and Goobang Creek.

Condobolin is not on any major road nor located near any other major centre. However, Condobolin itself is the centre of administration for the Lachlan Shire and wool, wheat, sheep, cattle, fruit and mixed farming are the economic mainstays of this district.

Within a 150 km catchment, Condobolin produced an average of 2.5 million tonnes of grain in the production years of 2000/01 and 2002/03 (Clark and Associates, 2006). The average feed grain demand during this period has been estimated at 379,000 tonnes, leaving an average grain surplus of just over just over 2 million tonnes. Yearly surpluses would be available for use in the ethanol production process.

Condobolin is accessed by Lachlan Valley Way Road, which is accessed from either Newell Highway from the south or the Mid Western Highway from the west.

A passenger rail service the Outback Xplorer runs through Condobolin, linking it to Menindee, Parkes, Orange East, Bathurst, Lithgow and Katoomba. Freight services also operate along the rail line transporting approximately 500, 000 tonnes of freight annually.

An aerial photograph of the site and surrounding area is shown in *Figure 2*.

2.2 SITE DESCRIPTION

The site is comprised of a number of lots as follows:

- Lot 32 on Deposited Plan (DP) 752093; Parcel ID 5804.

The site is located in the Parish of Gulgo County of Cunningham, NSW.

Micabil Road runs along the southern boundary of the property and is adjacent to the Orange-Broken Hill Railway line. The site is roughly triangular in shape and has a total area of 96 hectares. Several fences divide the property from its rural neighbours to the north, east, and west.

The site is relatively flat with a gradual rise to the east. Lachlan Shire Council reported that the site may be on flood prone land however no assessment of flood liability has been made for the site or surrounding area. Council also reported that they have recently initiated a flood plain study of the area although no flood levels or other related information is available at this time. The section 149 (2) and (5) certificates for the site do not indicate any information regarding flood levels for the site and the zoning map for this area does not identify the site as flooding prone, although it is assumed that limited flood studies have been undertaken outside the Condobolin township. There are no policies adopted by Council that restrict development on the site due to flooding.

A preliminary assessment of catchment flows and flood levels will be undertaken to assess the risk of flooding as part of the EAR. Analysis of past hydrological events and flooding, catchment areas, local historical records and survey data for the site will be undertaken. If insufficient information is established through this process, hydrological (RAFTS) and hydraulic (HEC-RAS) modeling will be carried out to estimate the predicted flows and flood levels for the area, and calibrated with known flood events.

Currently the site comprises:

- former agricultural cropping land with an agricultural storage area (mainly small scale farming equipment) in the north;
- stands of pine trees primarily along the property boundaries;
- two shallow dams in the southeast and southwest corners of the site; and
- a metal storage shed of approximately 10x20 m² on the northern boundary towards the centre of the site.

Immediate surrounding areas include the following:

- open agricultural cropping land on the north and west boundaries of the site;
- a rural residential property is located adjacent to the site with a dwelling approximately 50 metres the eastern boundary, beyond which lies open rural land; and
- Micabil Road and the Orange-Broken Hill Railway line run along the southern boundary of the site.

Surrounding areas further out from the boundaries of the site include:

- open agricultural cropping land extending north and west;
- a former abattoir and rural residential housing approximately one kilometre to the east;
- Gum Bend Lake an artificial recreational waterway is located approximately 600 metres south of the site; and
- Lachlan River is located approximately 1 km south of the southern boundary of the site.

Micabil Road, which adjoins the site to the south, is the major road between Condobolin and Kiacatoo to the west, and forms part of a larger network of regional roads which intercept in the township. The Orange-Broken Hill Railway line adjoins the site to the south and is the central freight and passenger line linking Sydney to Broken Hill and South Australia.

The nearest residential area to the site is the Condobolin township, approximately five kilometres to the east, while the closest water body is Gum Bend Lake, approximately 500 metres to the south.

Photographs 1 to 6 show the site and immediate surrounding area.