



PRELIMINARY ASSESSMENT
PROPOSED BIODIESEL PROJECT
49 FRIENDSHIP ROAD PORT BOTANY

1.1 Introduction

Vopak Terminals Sydney Pty Ltd and Natural Fuels Australia Ltd (NFAL) (together known as 'the proponent') are proposing to construct and operate a biodiesel facility within an existing chemical and petroleum handling facility at Port Botany NSW. The existing facility is owned and operated by Vopak Terminals Sydney Pty Ltd. The proposal would utilise existing infrastructure and expand the Vopak site for the purpose of producing, storing and distributing biodiesel.

Vopak Terminals Sydney Pty Ltd is a company that provides bulk liquid services (storage, transport, bulk handling, packaging and distribution) and access to distribution facilities to independent operators and large corporations. These bulk liquids include fuel-based products used for energy and transport functions throughout NSW.

NFAL was incorporated in February 2005. The company was formed to build a sustainable and renewable energy business in emerging yet strong alternative energy growth markets.

The proponent operates two bulk liquid storage terminals in Port Botany, approximately 13 km south of the Sydney CBD. The first is known as the Site A Terminal and is located at 49 Friendship Road. The second facility, known as the Site B Terminal, is located at 20 Friendship Road. Both sites store petroleum products. The proposal would take place upon land at the Site A Terminal but would integrate with other existing facilities, including the Site B Terminal.

This Preliminary Assessment has been prepared to initiate the assessment of the proposal under Part 3A of the Environmental Planning and Assessment Act 1979 (the Act). The expansion area would take place on a 0.8 hectare parcel of land within the boundaries of the Site A Terminal on land described as Lot 5 DP 635791 at 49 Friendship Road Port Botany. The proposal also includes utilisation of existing Vopak Site A infrastructure and integration into the wider regional fuel distribution network, including Vopak Site B, via the use of pipeline transfers.

1.2 Background

1.2.1 What is biodiesel?

Biodiesel is a form of biofuel – a fuel that is derived from a renewable source of combusted material that can be beneficially used for energy purposes. Biofuels stem from agricultural products and the carbon dioxide produced from their combustion can be recycled as renewed biofuel.

Biodiesel is a liquid made from animal fats and vegetable oils. It has properties similar to petroleum based diesel. The production of biodiesel involves a process of transesterification, which includes mixing of vegetable oils (or animal fats) with alcohol (e.g. methanol) in the presence of a suitable alkaline catalyst (such as sodium methylate).

After the chemical reaction takes place within the mixing trains, the product is separated within a settler tank and allowed to separate into an ester-rich phase (which is upgraded to biodiesel by washing with water) and a denser glycerine (which is vacuumed dried, distilled and refined to pharmaceutical grade



glycerine).

The benefits of biodiesel is that it provides an alternative to fossil fuel based product by either substitution in its entirety (called B100) or blended into petroleum diesel products as a percentage (e.g. B10 or B20). The advantage of a B10 or B20 grade of biodiesel is that it provides a "drop in" technology in that no new equipment, or equipment modifications, is necessary.

The biodiesel market is a significant step forward in the development of cleaner alternative fuels and the benefits of such fuels include:

- ▶ Improved urban air quality, giving improved public health;
- ▶ Reduced emissions of greenhouse gases;
- ▶ Assisting the Australian economy generally, either through import substitution or kick-starting a new industry;
- ▶ Improved energy security; and
- ▶ Regional development.

1.2.2 The Vopak Site A Terminal

The existing Site A Terminal was established in 1979 to serve an identified need for an independent bulk liquid chemical distribution facility in the greater Sydney Region. The facility caters for the distribution of bulk liquid chemicals to chemical manufacturers, oil companies, and chemical traders who sell into the local markets.

The current facility is also integrated into a wider network of petroleum and liquid fuels transport infrastructure with other Vopak facilities (Vopak Site B), oil industry corporations including Caltex Banksmeadow and Caltex Kurnell, Terminals Pty Ltd, and the Sydney Ports Corporation. Consequently, Vopak infrastructure is a critical part of the network to ensure other bulk liquid and cargo distribution facilities in the immediate area operate in an efficient and environmentally safe manner.

1.3 Site location

The Site A Terminal is a four hectare site located at 49 Friendship Road, Port Botany and comprises:

- ▶ Lot 3 DP 635791 (2.477 hectares);
- ▶ Lot 4 DP 635791 (0.7580 hectares); and
- ▶ Lot 5 DP 635791 (0.7792 hectares).

Vopak is currently negotiating the extension of its lease with the Sydney Ports Corporation for a 20 year option over the site.

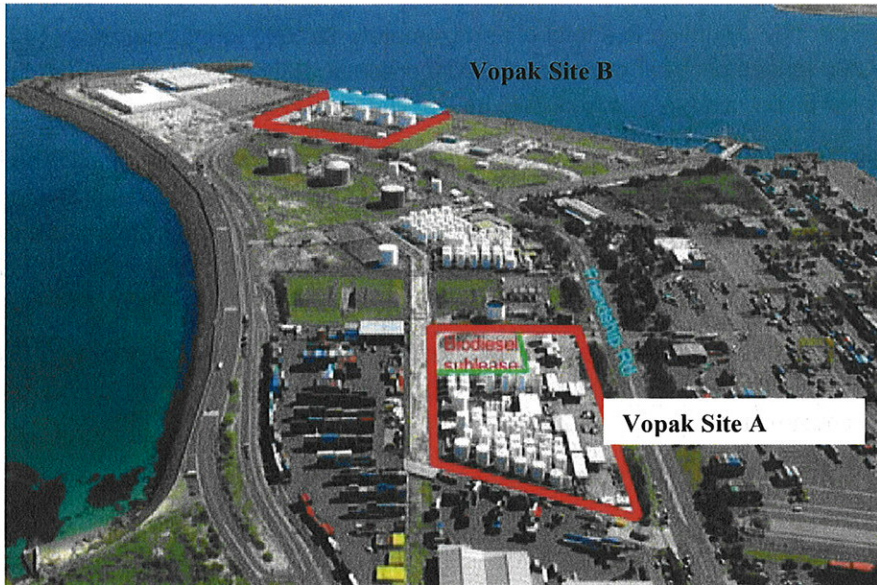


Figure 1 Location of the proposal

The Vopak Site A Terminal is located on relatively flat, stable land with few undisturbed natural features and to the south of Brotherson Dock, a container dock facility (where Patrick Stevedores, Port Botany Container Park and Port Botany Transfer Station, amongst others, are located), refer to Figure 1.

Nearby suburbs include Banksmeadow, Botany, Matraville, Phillip Bay, La Perouse, Little Bay and Chifley. These suburbs are characterised by a mix of port related and industrial uses, residential and commercial services. Kingsford Smith Airport is located nearby, making the area an important gateway transfer point for Sydney, NSW and Australia to the global economy.

1.4 The proposal

1.4.1 Generic description

The proposal is the construction and operation of a biodiesel processing plant, storage tanks and associated infrastructure. Vopak would provide storage and distribution infrastructure, utilities and infrastructure management facilities. NFAL would provide the biodiesel processing plant and associated infrastructure.

The proposal will require refurbishment of the Vopak Site A Terminal (Lots 3 and 4) and to re-use some of the existing tanks, pumps, loading/unloading facilities, fire protection system and other miscellaneous facilities. In addition, the proposal will require construction of a biodiesel processing plant and associated facilities on a cleared portion of the Vopak Site A Terminal (Lot 5).

The development is to be achieved in two stages. During the first stage, a one train biodiesel plant and associated infrastructure, storage and utilities would be provided. The second train of the same capacity and the necessary additional facilities will be provided during stage two.

NFAL plans to engage Lurgi Pacific Pty Ltd to deliver the complete biodiesel processing plant train for stage one of the proposal. The plant train would be designed for a continuous 24-hour production of 360