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1.1 Background

South East Fibre Exports Pty Ltd (SEFE) operates a woodchip mill and export facility at Eden, NSW, approximately 400 km south of Sydney. The Munganno Point mill site is located on the southern shoreline of Twofold Bay (**Figure 1-1**) and has been in operation for some 40 years. The existing facility includes log receival and storage, debarking, chipping and an associated process plant, and wharf / ship-loading facility for the export of woodchips.



Figure 1-1 SEFE's Munganno Point mill site

SEFE generates approximately 35,100 t of wood waste each year which is currently being disposed of in the burner (**Figure 1-1**) or sold as mulch to markets in Sydney and Canberra.

With the rising cost of energy and the rapid growth in the technology of biomass fuel systems, SEFE has identified an opportunity to become self sufficient in its energy needs, to be a net generator of electricity and to add value to a renewable biomass material that is currently burnt for no energy recovery or commercial return.

SEFE plans to construct a Wood Waste to Energy (Biomass) facility (Power Plant). SEFE would use the wood waste generated from its operations together with a further 22,600 t of wood waste available from local timber processing operations.

SEFE 5.5 MW BIOMASS POWER PLANT - ENVIRONMENTAL ASSESSMENT

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The proposed Power Plant will be located within SEFE's existing Munganno Point mill site on the current site of the wood waste burner. Seawater will be drawn from Twofold Bay via an intake suspended from SEFE's existing wharf. Cooling water from the Power Plant will also be discharged from the wharf.

The Power Plant would have a capacity of around 5.5 MW and would burn around 57,700 t of wood waste to produce around 31 GWh of electricity per annum. Around 9 GWh will be used to supply the mill and Power Plant with the balance (22 GWh) being exported to the grid.

1.2 Project Outline and Objectives

The Power Plant would be constructed in the area currently occupied by SEFE's mill waste burner (**Figure 1-1**). Fuel would comprise hardwood screening fines, pine bark and fines, mill waste and sawdust / shavings.

The project would include:

- an uncovered area for the storage of biomass fuel;
- weatherproof fuel storage bunker;
- fuel reclaim bunker and feed conveyor to supply wood waste to the Power Plant;
- fuel storage bin;
- grate furnace;
- steam boiler;
- ash handling systems;
- exhaust stack with an electrostatic precipitator to remove fly ash from the flue gas stream;
- multi-stage steam turbine;
- generator set connected to the existing bus located in SEFE's existing high voltage switch yard;
- vacuum steam condenser and cooling water system;
- seawater intake structure, delivery and return water pipelines, and diffuser;
- ancillary plant items such as boiler make-up water treatment plant, condensate pumping system and control room; and
- the in-forest application of ash.



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The key objectives of the project are to:

- protect SEFE's future interests in relation to security of electricity supply;
- provide electricity with improved environmental outcomes due to lower greenhouse gas emissions per unit of output compared to conventional power generation technologies such as coal; and
- capitalise on the opportunities presented by way of incentives established to encourage transition to renewable electricity generation.

1.3 The Proponent

The project proponent is South East Fibre Exports Pty Ltd (SEFE), a timber processing and exporting company jointly owned by Nippon Paper Industries (62.5%) and Itochu Corporation (37.5%). Nippon Paper Industries is the second largest Japanese domiciled producer of pulp and paper products. Itochu Corporation Limited is a Japanese domiciled trading house with extensive forestry-based interests in Australia and other countries.

Since establishing in Eden in 1968 (as Harris-Daishowa Australia Pty Ltd), SEFE has invested in excess of \$68 million and owns and manages a plantation estate of 3900 ha.

SEFE has been exporting woodchips since 1971 with total export value almost \$2 billion. Apart from a trial shipment of 12,000 t of pine chips in 2001, up until 2008 all exports were of hardwood chip. In 2008 commercial shipments of pine chip commenced.

SEFE's direct employment is 77 and a further 300 persons are employed in the direct supply chain and in forest management. A similar number of indirect jobs attach to the SEFE operation. SEFE's markets are integral to the financial viability of 11 regional sawmills and will also be important to the large softwood sawmill planned for Bombala.

SEFE operates an ISO 14001 Environmental Management System and SEFE plantations and private forest operations are managed and operated to the Australian Forestry and Chain of Custody Standards.

1.4 Environmental Assessment Process

1.4.1 Overview

The *Environmental Planning and Assessment Act* 1979 (EP&A Act) and its supporting Regulation, the *Environmental Planning and Assessment Regulation* 2000 (EP&A Regulation), provide the framework for the assessment and approval of proposed developments within NSW.

Part 3A of the EP&A Act provides a process for the assessment of developments which are considered to be "Major Projects" as declared by *State Environmental Planning Policy (Major Projects)* 2005 (Major Projects SEPP) or by order of the Minister in the Government Gazette.

Pursuant to section 75B of the EP&A Act, the Minister for Planning declared the proposed development a project to which Part 3A applies.

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The proposed Power Plant is subject to the development and assessment processes and requirements of Part 3A of the EP&A Act. A Development Application and Preliminary Environmental Assessment were submitted by SEFE to the Department of Planning in January 2009.

On the 29th March 2009 Environmental Assessment Requirements were issued for the Project pursuant to section 75F(2) of the EP&A Act (**Appendix A**).

A flow diagram of the assessment process under Part 3A of the EP&A Act is shown in Figure 1-2.







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1.4.2 Environmental Assessment Preparation and Exhibition

This Environmental Assessment has been prepared in accordance with Part 3A of the EP&A Act and the Director-General's Environmental Assessment Requirements.

The objectives of the Environmental Assessment are to:

- comply with the requirements of the EP&A Act, as formalised in the Director-General's Environmental Assessment Requirements;
- provide the Minister for Planning with sufficient information to determine the environmental impacts and benefits of a Biomass Power Plant at SEFE's Eden operations; and
- inform the community about the Biomass Power Station in the Eden region.

1.4.3 Decisions and Assessments

Subsequent to exhibition of the Environmental Assessment, copies of all submissions will be provided to SEFE and relevant Government authorities. SEFE will review the submissions and respond to the issues raised which are relevant to the Power Plant proposal.

The Director-General will prepare an assessment report on the Power Plant which will take into account comments from relevant Government authorities as well as other stakeholders and the community. The assessment report will be provided to the Minister for Planning who will determine whether to grant project approval and, if so, conditions under which the Power Plant would operate.

1.4.4 Key Assessment Requirements

The Director-General's Environmental Assessment Requirements identified specific issues to be addressed in the Environmental Assessment. These comprised:

- strategic justification;
- fuel types and sources;
- water quality;
- noise;
- greenhouse gases;

- land use;
- air quality;
- visual impacts;
- flora and fauna;
- indigenous heritage;

• hazard and risks; and

• traffic and transport.

These key issues are addressed with specific investigations. These investigations were used as source materials for this Environmental Assessment. Where these investigations are very detailed they are presented in the appendices and summarised in the relevant sections of this main report. In other instances the whole assessment forms the relevant section of this main report.

The Environmental Assessment Requirements also require that any additional environmental impacts associated with the project are identified and that appropriately detailed impact assessment is undertaken where necessary. For this project no new issues have been identified that have not been adequately covered by the Environmental Assessment Requirements.



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1.5 Document Structure

The Environmental Assessment document is divided into the following parts:

- *Executive Summary* This provides a brief description of the key issues and findings detailed in the other parts of the Environmental Assessment.
- *Introduction* **Chapter 1** briefly outlines the project, the proponent and the environmental impact assessment process.
- *The Project* **Chapters 2 and 3** describes the project in detail, provides justification for the project and the alternatives considered for various project components.
- Statutory Planning– Chapter 4 includes the relevant controlling Commonwealth and State legislation, and nominates the various licences and approvals required to enable the proposed Power Plant to proceed.
- Consultation Chapter 5 summarises the issues raised during consultation with statutory and other relevant authorities, and the local community. The issues raised during the consultation process are then prioritised for the following sections of the Environmental Assessment.
- Environmental Assessment Chapters 6 to 17 provide an overview of the existing environment, an assessment of the likely impacts of the project and the identification of appropriate mitigation measures to safeguard the environment.
- Draft Statement of Commitments Chapter 18 consolidates SEFE's commitment to implementation of environmental management measures to safeguard against any potential impacts.
- *Conclusions* **Chapter 19** addresses the principles of Ecologically Sustainable Development and provides justification for the proposed development.
- *References* **Chapter 20** provides a list of materials referenced during preparation of the Environmental Assessment.
- *Appendices* These contains the correspondence received and the detailed assessments conducted for the Environmental Assessment.

