ENVIRONMENTAL ASSESSMENT

South East Fibre Exports
5.5 MW Biomass Power Plant

Volume 2 – Appendices

March 2010

Environmental Assessment Requirements

Appendix A

NSW GOVERNMENT
Department of Planning

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Our ref: *S08/01909*

Mr Peter Mitchell
General Manager
South East Fibre Exports Pty Ltd
PO Box 189
EDEN NSW 2551

Dear Mr Mitchell

Proposed 5 Megawatt Baseload Biomass-Fired Power Station, Edrom Road, Twofold Bay (Eden) -Bega Valley Local Government Area (Application Reference: S08_01909)

The Department has received your major project application for the proposed 5 megawatt biomass-fired power station project.

I have attached a copy of the Director-General's requirements (DGRs) for the preparation of an Environmental Assessment for the project. These requirements have been prepared in consultation with the relevant government agencies. I have also enclosed a list of relevant guidelines that you may wish to refer to during the preparation of the Environmental Assessment.

It should be noted that the Director-General's requirements have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the Proponent seeking approval for the project.

I would appreciate it if you could contact the Department at least two weeks before you propose to submit the Environmental Assessment for the project to determine:

- the fees applicable to the application.
- relevant land owner notification requirements.
- consultation and public exhibition arrangements that will apply. • options available in publishing the Environmental Assessment via the Internet. and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

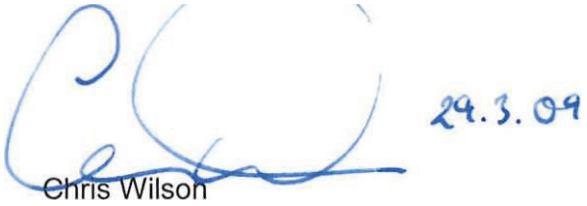
Prior to exhibiting the Environmental Assessment, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require the Proponent to revise the Environmental Assessment to address the matters notified to the Proponent. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your project includes any actions that could have a significant impact on matters of National Environmental Significance, it will require an additional approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of the Environment, Heritage, Water and the Arts to determine if an approval under the EPBC Act is required for your project (6274 1111 or http://www.environment.gov.au).

Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements will need to be issued.

If you have any enquiries about these requirements. please contact Ms Anna Tirnbrell, Environmental Planning Officer. Major Infrastructure Assessments on 02 9228 6345 or via email (anna.timbrell@planning.nsw.gov.au).

Yours sincere y



Chris Wilson

Executive Director
Major Project Assessments
as delegate of the Director-General

Director-Generals' Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Project	Construction and operation of 5 megawatt biomass-fired power station.
Site	Edrom Road, Twofold Bay (Eden), on the southern shoreline of Twofold Bay, approximately 35 kilometres south of Eden in the Bega Valley local government area.
Proponent	South East Fibre Exports Pty Ltd
Date of Issue	March 2009 29
Date of Expiration	29 March 2011
General Requirements	The Environmental Assessment (EA) must be prepared to a high technical and scientific standard and must include: • An **executive** summary. • A **detailed description** of the project • including: — construction, operation, staging (timeline) and decommissioning detaiis — identification of all fuel sources, including the relationship **to** native forest harvesting — the location and dimensions of all project components (eg. exhaust stack location including heights, fuel storage **areas,** electrical substations, transmission connections, intake and discharge pipelines etc.) • Consideration of any **relevant statutory provisions** including the consistency of the project with the objects of the *Environmental Planning and Assessment Act* 1979. • An assessment of the environmental impacts of the project, with a particular focus on the **key assessment requirements** specified below. • A **draft Statement of Commitments** detailing measures for environmental mitigation, management and monitoring for the project. • A **conclusion justifying the project** taking into consideration the environmental, social and economic impacts of the project, the suitability of the site, and the public interest. • **Certification by the author** of the EA that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	The EA must include assessment of the following key issues: • **Strategic Justification** — The EA must demonstrate the need, scale, scope and location for the project in relation to the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies. This should include capacity of the power station in relation to the fuel supply. — A clear demonstration of quantified and substantiated greenhouse gas benefits, taking into consideration sources of electricity that could realistically be replaced and the extent of their replacement. — Include an analysis of the suitability of the project with respect to potential land use conflicts with existing and future surrounding land uses (including rural residential development, land of significant scenic or visual value, land of high agricultural value, mineral reserves and conservation areas), taking into account local and strategic land use objectives. With regard to potential land use conflict, you should consider the adjoining Department of Defence site and wharf and extent to which the proposed development falls within any "safeguarding lines" for public safety identified by Defence for the loading and unloading of ammunition. — Describe alternatives considered (location and/or design, fuel source) and provide justification for the preferred project demonstrating its benefits on a local and strategic scale and how it achieves stated objectives.
	• **Biomass Materials** — Provide a breakdown of volumes (in tonnes) of hardwood and softwood received for processing annually by the premises. A detailed description of each type of biomass proposed to be used as fuel (eg. hardwood screenings, mill waste, sawdust shavings

	and municipal wood waste), the source of each waste and the quantity to be used annually should be supplied. — Detail types and volumes (in tonnes) of wood waste to be sourced onsite and offsite for fuel on an annual basis, and the sources (including company names locality, etc.) of all wood waste. — Demonstrate, and provide a guarantee, that no native or plantation forests will be felled for the particular purpose of fuelling the proposed power station • **Air Quality** — The EA must include a comprehensive air quality impact assessment prepared in accordance with the *Approved Methods and Guidance for Modelling and Assessment of Pollutants in NSW* (DEC 2005) with a focus on wood waste burning, particulates and the impact of cumulative air emissions on the local area. This must include an assessment of the effects of adverse meteorological conditions. — Include a robust Air Quality Impact Assessment (AQIA) based on dispersion modelling. The facility must be designed, operated and maintained so that there is no offensive odour beyond the boundary of the premises. — Details must be provided on the proposed air pollution control techniques and emission monitoring and demonstrate that the proposal will meet the requirements of relevant legislation including Schedule 4 of the Protection of the Environment Operations (Clean Air) Regulation 2002. — Note: there is a potential for low levels of contamination when mining for waste wood from sources such as municipal landfill, as proposed in the Preliminary EA. In accordance with the DECC Guidance Note: Assessment of Nonstandard Fuels, wood waste which is used or is potentially contaminated is classified as a non-standard fuel. The proposal must be assessed against this guidance note and demonstrate that emission control is commensurate with the potential contaminates which may be found in the types of wood waste to be used. • **Water Quality** — The EA must demonstrate the project's capacity to comply with section 120 of the *Protection of the Environment Operations Act* 1997 (being the prohibition of water pollution). — Describe the intake and discharge stream volumes, position of intakes and discharges, thermal dilution of discharge, water quality at point of discharge, water quality at edge of mixing zone, and plume movement under a range of conditions. ○ Identify and estimate the quality and quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented. This should be undertaken for the construction and operational. — For all chemicals used in the process such as biocides, corrosion inhibitors, antiscalants, etc. an assessment should be undertaken of the potential for environmental impact at the discharge point. — Show the impact upon water quality in Twofold Bay from the proposed power station and safeguards to mitigate any impact upon water quality for both construction and ongoing operation. This should include full details of proposed erosion and sediment controls and stormwater and water quality management for the development. — An assessment of the direct and indirect impacts of the development (including cooling water extractions and discharges) on nearby aquaculture operations (mussel farms), and recreation and commercial fishing in Twofold Bay, especially in terms of water quality, food safety impacts, access issues tor restrictions on fishing areas or boat movements. — The EA must include an assessment of the visual impact of the project from key viewing points within the local area and from nearby residential areas. — Provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. This should describe community and stakeholder values of the local and regional visual amenity and quality, and perceptions of the project based on surveys and consultation. — Provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented —

- **Noise Impacts**
  - The EA must include a noise impact assessment for the project, conducted in accordance with the *NSW Industrial Noise Policy* (EPA 2000)
  - Identify all potential sources and describe the extent to which noise emissions are likely to impact on any residential andlor other sensitive receivers in the vicinity
  - Take into account both the construction and operational phases of the development, clearly specify the proposed hours of operation for both phases, and take into account adverse weather conditions including temperature inversions. The probability of such occurrences must also be quantified
  - Noise impacts, associated with an increase in traffic due to the proposal along the main access routes to the site, need to be assessed in accordance with the *Environmental Criteria for Road Treffic Noise* (DEC 1999). Where disturbances are likely to exceed recommended criteria, the EA must describe measures proposed to mitigate the impacts and the extent to which the measures are likely to be effective in achieving the relevant criteria
  - Any vibration effects from the project must also be considered taking into account the *Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZECC 1990) -7 Outline the noise mitigation, monitoring and management measures the Proponent intends to apply to the project. This must include an assessment of the feasibility, effectiveness and reliability of proposed measures and any residual impacts after these measures have been implemented.
- **Flora and Fauna**
  - The EA must include an assessment of all project components on flora and fauna and their habitat in accordance with the *Threatened Species Assessment Guidelines* (DECC 2007).
  - Include details on the existing site conditions and quantity and likelihood of disturbance. Consider the likely impact on regionally significant protected and threatened species and their habitat
  - Consider the impacts (both temporary and permanent) of the proposal to the Twofold Bay region and adjoining Twofold Bay Estuary and any associated threatened flora and fauna species including but not limited to:
    - Seagrass beds, including sensitive *Poseidon* seagrass populations and habitat
    - Microalgae -seaweeds
    - Fish -including any aquatic threatened species or protected species listed under the *Fisheries Management Act* 1994 -ego black cod *(Notothenia microlepidota),* seahorses (syngnathids), benthic organisms and the intertidal zones
    - Cetaceans -including migratory species such as Humpback Whales *(Megaptera novaeangliae),* Southern Right Whales *(Eubalaena austrelis)* and Blue Whales *(Balaenoptera musculus)*
    - Birds -including Black Bittern *(Lxbrychs flavicollis),* Sooty Oystercatcher *(Haematopus fuliginosus),* Pied Oystercatcher *(Haematopus longirostris)* , Sanderling *(Calidris alba),* Lesser Sandplover *(Charadris mongolus),* Hooded Plover *(Thinornis rubrico//is),* Little Turn *(Sterna albifrons)*

  This should include assessment of both direct impacts (removal, disturbance) and indirect impacts (eg. water temperature changes) of the proposed development, especially impacts of the proposed extraction and discharge of cooling water and any anti-fouling agents to Twofold Bay.
  - Details of how flora and fauna impacts would be managed during construction and operation including adaptive management and maintenance protocols.
  - Describe measures to avoid, mitigate or offset impacts consistent with "improve or maintain" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project.

	• **Greenhouse GasIClimate Change** — The EA must include a comprehensive report on the project's predicted greenhouse gas emissions and mitigation measures. — Emissions should be calculated using an appropriate methodology in accordance with NSW, Australian and international guidelines, be expressed in tonnes of Carbon Dioxide equivalents (tC02-e), and provided as annual emissions for the year of the project. — In accordance with Greenhouse Gas Protocol, emissions should be reported broken down by: Direct emissions; Indirect emissions from electricity; Upstream and downstream emissions, and; Emissions from biomass burning and biomass harvesting. — Greenhouse emissions intensity (per unit of production) should be compared before and after the project, and if possible, with best practice. — The EA should identify which emissions will be covered by the proposed Carbon Pollution Reduction Scheme (CPRS) and Renewable Energy Target (RET) scheme. • **Indigenous Heritage** — The EA must include an assessment of the potential impact of the project components on indigenous heritage values (archaeological and cultural). — Demonstrate effective consultation with indigenous stakeholders during the assessment and in developing mitigation options (including the final recommended measures) consistent with *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005). • **Hazard/Risks** — The EA must include an assessment of the potential impacts on bushfires, communication systems and electric and magnetic fields, plume rise and any land contamination issues. • • **Traffic and Transport** — The EA must assess the construction and operational traffic impacts of the project including: details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads, bridges and intersections, including any proposed road upgrades and repairs. • **General Environmental Risk Analysis** — Notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the EA.
Consultation Requirements	The Proponent must undertake an appropriate and justified level of consultation with the following parties during the preparation of the EA: • Bega Valley Shire Council • Department of Environment and Climate Change • Department of Water and Energy • Department of Primary Industries • NSW Roads and Traffic Authority • Country Energy • NSW Rural Fire Service • Southern Rivers Catchment Management Authority • Commonwealth Department of Defence • Civil Aviation Safety Authority • Airservices Australia • Local community and landowners The EA must clearly describe the consultation process and indicate the issues raised by stakeholders during consultation and how these matters have been addressed.
Deemed refusal period	60 days