

8. AUSTRALIA

8.1 Energy Policies and Actions

In June 2004, the Australian Government released the Energy White Paper "Securing Australia's Energy Future"¹⁰⁹, which sets out a comprehensive strategy for sustainable energy for the next 20-30 years.¹¹⁰ Some updates for the White Paper were issued in July 2006.¹¹¹ A number of initiatives were announced to achieve the Australian Government's energy objectives. These include:

- a complete overhaul of the fuel excise system to remove AU\$1.5 billion in excise liability from businesses and households in the period to 2012-13
- the establishment of a AU\$500 million fund to leverage more than AU\$1 billion in private investment to develop and demonstrate low-emission technologies
- a strong emphasis on the urgency and importance of continued energy market reform
- the provision of AU\$75 million for Solar Cities trials in urban areas to demonstrate a new energy scenario, bringing together the benefits of solar energy, energy efficiency and vibrant energy markets
- the provision of AU\$134 million to remove impediments to the commercial development of renewable technologies
- incentives for petroleum exploration in frontier offshore areas as announced in the 2004-05 budget
- new requirements for business to manage their emissions wisely
- a requirement that larger energy users undertake, and report publicly on, regular assessments to identify energy efficiency opportunities¹¹²

Energy use is the dominant source of greenhouse gas emissions in Australia, contributing 69 per cent in 2004 of the nation's total emissions. Although Australia has declared its intention not to ratify the Kyoto Protocol, it has been pursuing active climate policies. The Australian Greenhouse Office, within the Department of the Environment and Water Resources, is implementing a range of programmes designed to reduce emissions from the energy sector while meeting the needs of the community for ecologically sustainable energy services. Below shows some of the programmes:

(i) Australian Coal Mine Methane Reduction Programme (ACMMRP)

In order to help reduce fugitive emissions from Australian black coal mines, the Australian government has established and is implementing the ACMMRP.¹¹³ This programme is designed to reduce methane emissions from Australian underground

¹⁰⁹ Full document can be found in the link, http://www.dpmc.gov.au/publications/energy_future/docs/energy.pdf

¹¹⁰ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/energy/index.html>

¹¹¹ The updated document for the version in July 2006 can be obtained from: http://pmc.gov.au/energy_reform/docs/energy_update_july2006.rtf

¹¹² Extracted from the Energy White Paper "Securing Australia's Energy Future", http://www.dpmc.gov.au/publications/energy_future/docs/energy.pdf

¹¹³ Details of the programme can be referred to:

<http://www.greenhouse.gov.au/coalminemethane/pubs/coalminemethane-guidelines.pdf>

coal mines in the Kyoto target period 2008-2012.¹¹⁴

(ii) Greenhouse Gas Abatement Programme (GGAP)

The GGAP aims to reduce Australia's net greenhouse gas emissions by supporting activities that are likely to result in substantial emissions reductions or activities to offset greenhouse emissions, particularly in the period 2008-2012. The programme leverages private sector investment in activities or technologies through projects, which are based on energy efficiency, alternative fuels, coal mine gas technologies, fuel conversion, etc.¹¹⁵

(iii) Low Emissions Technology and Abatement (LETA) initiative

The LETA initiative is a \$26.9 million measure to reduce greenhouse gas emissions over the longer term by supporting the identification and implementation of cost effective abatement opportunities and the uptake of small scale low emission technologies in business, industry and local communities.¹¹⁶

(iv) Low Emission Technology Demonstration Fund (LETDF)

The LETDF supports the commercial demonstration of technologies that have the potential to deliver large-scale greenhouse gas emission reductions in the energy sector. The fund is designed to address the technical risk and capital costs of demonstrating low emissions technologies to ensure they are commercially viable in the longer term.¹¹⁷

(v) National Framework for Energy Efficiency (NFEE)

State and territory governments are critical to achieve improved energy efficiency across the whole economy. The Government looks forward to continued cooperation with all state and territory governments in developing and implementing the NFEE, which includes energy efficiency programmes for appliances and equipments, standards for buildings, and energy efficiency measures across the commercial, government and industrial sectors.¹¹⁸

¹¹⁴ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/coalminemethane/index.html>

¹¹⁵ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/ggap/index.html>

¹¹⁶ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/leta/index.html>

¹¹⁷ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/demonstrationfund/index.html>

¹¹⁸ Referenced to the web site of the Department of the Environment and Water Resources, Australia Greenhouse Office, <http://www.greenhouse.gov.au/energy/publications/govt-response.html>

8.2 Environmental Evaluation/SEA in Australia

In Australia, it is a statutory requirement under Part 10 section 146 of the Environment Protection and Biodiversity Conservation Act (EPBC Act, 1999) that an SEA-type process (underneath called “Strategic Assessment”) is required for policies, plans and programmes, triggered by agreement with the Federal Minister for the Environment (hereafter called “the Minister”).¹¹⁹

A guideline on the EPBC Act was issued in May 2006¹²⁰ that assist persons to decide whether or not they should submit a referral to the Australian Government Department of the Environment and Heritage (DEH) for a decision by the Australian Government Environment Minister on whether assessment and approval is required under the EPBC Act.

Under Part 3 of the EPBC Act¹²¹, assessment and approvals are required for policies, plans and programmes that are likely to have a significant impact on (i) national environmental significance (ii) the environment of Commonwealth land (even if taken outside Commonwealth land) (iii) the environment anywhere in the world (if the action is undertaken by the Commonwealth). Thus, an agreement should be made between the Minister and the person responsible for adoption or implementation of such policy, plan or programme.¹²²

Under the SEA-type framework stipulated in the EPBC Act, there are five types of assessment approach, which the Minister must choose one of them for assessing the relevant impacts of a policy, plan or programme, namely:

- assessment by an accredited assessment process
- assessment on preliminary documentation
- assessment by Public Environmental Report (PER)
- assessment by Environmental Impact Statement (EIS)
- assessment by public inquiry

Before making the decision of choosing the assessment approach, the Minister should consult the Minister of the State or Territory, consider information available about the relevant impacts of actions and the guidelines published which set out criteria for decision on approach used. Once the report of the assessment is given to the Minister, he or she must decide whether or not to approve the policy, plan or programme, and what conditions to attach to any approval.

¹¹⁹ Strategic Environmental Assessment: A sourcebook and reference guide to international experience, Barry Dalal-Clayton and Barry Sadler, 2004, http://www.iied.org/Gov/spa/documents/SEAbok/Chapter3_Oct04.pdf, Ch. 3.3.1, page 49

¹²⁰ Full document of the guideline can be obtained from this link:
<http://www.environment.gov.au/epbc/publications/pubs/commonwealth-guidelines.pdf>

¹²¹ Details can be found at
[http://www.comlaw.gov.au/ComLaw/legislation/actcompilation1.nsf/0/C8E992E70DE300F9CA2573050000E31C/\\$file/EnvProtBioDivCons99Vol1WD02.pdf](http://www.comlaw.gov.au/ComLaw/legislation/actcompilation1.nsf/0/C8E992E70DE300F9CA2573050000E31C/$file/EnvProtBioDivCons99Vol1WD02.pdf)

¹²² Details can be found at
[http://www.comlaw.gov.au/ComLaw/legislation/actcompilation1.nsf/0/C8E992E70DE300F9CA2573050000E31C/\\$file/EnvProtBioDivCons99Vol1WD02.pdf](http://www.comlaw.gov.au/ComLaw/legislation/actcompilation1.nsf/0/C8E992E70DE300F9CA2573050000E31C/$file/EnvProtBioDivCons99Vol1WD02.pdf), page 237

Under Part 8 of the EPBC Act, the Minister must prepare written guidelines for the content of a draft public environmental report (PER) and environmental impact statement (EIS) about the relevant impacts of the policy, plan and programme.¹²³

For the assessment on preliminary documentation which requires public consultation, the assessment report is a public document and is provided to the Minister as one component of the package of matters to be considered in making an approval decision.¹²⁴

Assessment by Accredited Process is where a State or Territory will manage the assessment, or the Commonwealth will do so under other legislation. This assessment approach allows appropriate case-by-case accreditation of State, Territory or Commonwealth assessment processes in situations where bilateral agreements and declarations do not apply.¹²⁵

For public inquiry, the Minister must appoint commissioners as a commission to conduct the inquiry and report to the Minister in relation to the policy, plan and programme. A commission must comply with the terms of reference in conducting its inquiry. A hearing held as part of an inquiry must be conducted in public.¹²⁶

The process flow chart for Strategic Assessment conducted in Australia is presented in **Exhibit AU-1**. Overall stages for Strategic Assessment conducted in Australia include:

Stage 1: Screening - the Minister decides whether assessment is required for the proposed project; and the level of assessment approval required.

Stage 2: Scoping - the Minister prepares written guidelines for the scope of the assessment.

Stage 3: Preparing the Environmental Assessment Report - the proponent prepares the report based on guidelines provided by the Minister and the comments raised during public consultation. Then Secretary prepares report for the Minister.

Stage 4: EA Review and Project Appraisal - The Minister seeks reviews of relevant Commonwealth Ministers.¹²⁷

¹²³ EPBC Act,

[http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/\\$file/EnvProtBioDivCons99Vol1WD02.pdf](http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/$file/EnvProtBioDivCons99Vol1WD02.pdf), section 97, 101, originated from the web site of Australian Government Attorney-General's Department

¹²⁴ refer to web site of Department of the Environment and Heritage, Australia Government, <http://www.deh.gov.au/epbc/assessmentsapprovals/assessments/onprelimdoc.html>

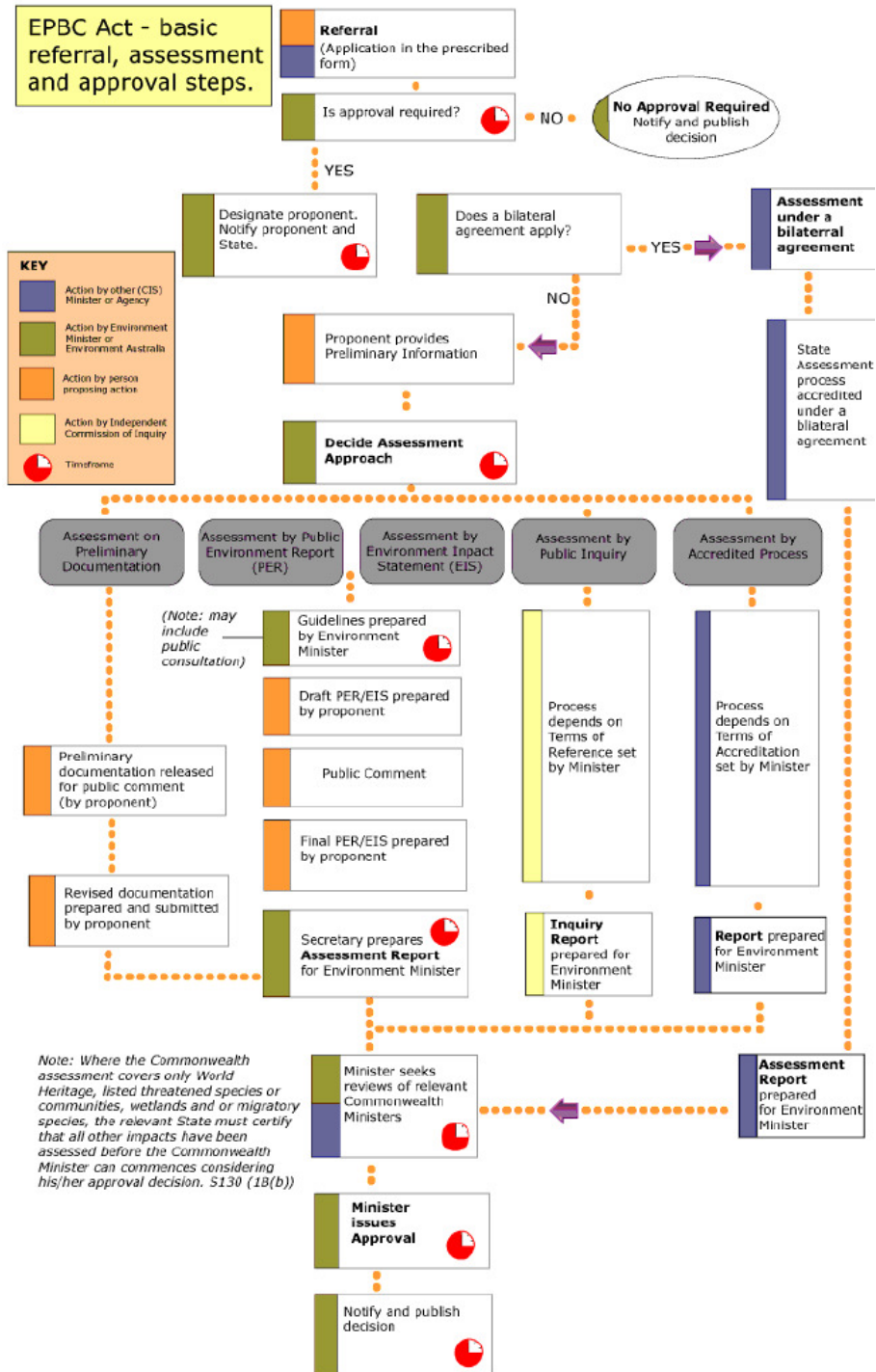
¹²⁵ refer to web site of Department of the Environment and Heritage, Australia Government, <http://www.deh.gov.au/epbc/publications/assessment.html>

¹²⁶[http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/\\$file/EnvProtBioDivCons99Vol1WD02.pdf](http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/$file/EnvProtBioDivCons99Vol1WD02.pdf), section 106-109, originated from the web site of Australian Government Attorney-General's Department

¹²⁷ EPBC Act,

[http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/\\$file/EnvProtBioDivCons99Vol1WD02.pdf](http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/ABBCB4F786833CAFCA257000000A5185/$file/EnvProtBioDivCons99Vol1WD02.pdf), page 101, 122-123, originated from the web site of the Commonwealth of Australia Law

Exhibit AU-1 Process flow chart for the overall process of Strategic Assessment¹²⁸



¹²⁸ Extracted from the web site of the Department of the Environment and Heritage, Australian Government, <http://www.deh.gov.au/epbc/assessmentsapprovals/flowchart.html>

8.3 Environmental Evaluation/SEA on Energy Policies and Actions in Australia

In Australia, energy-related policy, plan or programme which involves matters of national environmental significance covered by the EPBC Act should follow the requirements of the EPBC Act in relation to making a decision whether the policy, plan or programme requires environmental assessment and approval. Reference shall be made to Section 8.2 for details of the EPBC Act.

A number of offshore oil and gas exploration and development proposals have been assessed and approved under the EPBC Act. In cooperation with the offshore oil and gas exploration industry, the DEH has developed guidelines on the application of the EPBC Act to interactions between offshore seismic operations and larger cetaceans. Greater certainty for the offshore petroleum exploration industry is being provided through a strategic assessment of offshore exploration and appraisal activities. The assessment will examine the principal sources of impacts on matters of national environmental significance of proposed petroleum exploration and appraisal, and strategically identify concrete and effective measures for mitigating these impacts.

Besides, the construction and operation of a number of wind farms have been assessed and approved under the EPBC Act. The DEH is working with a technical reference group to prepare guidelines for development of low-impact wind energy facilities.¹²⁹

A summary table for the energy policies and actions and SEA status in Australia is presented in **Exhibit AU-2**.

Exhibit AU-2 Summary of Energy Policies and Actions and SEA Status in Australia	
(a) Energy Policies and Actions	
Energy Policies and Actions	Policies: <ul style="list-style-type: none"> ● Energy White Paper "Securing Australia's Energy Future" Actions: <ul style="list-style-type: none"> ● Australian Coal Mine Methane Reduction Programme (ACMMRP) ● Greenhouse Gas Abatement Programme (GGAP) ● Low Emissions Technology and Abatement (LETA) initiative ● Low Emission Technology Demonstration Fund (LETDF) ● National Framework for Energy Efficiency (NFEE)
Guidance/Legislations for Energy	N/A
(b) Environmental Evaluations / SEA Status in Energy Policies and Actions	
Type of Assessment	Strategic Assessment
Requirement Mechanisms	Statutory
Legislation for Environmental Evaluation / SEA	Environment Protection and Biodiversity Conservation Act
Applications	Policies, Plans and Programmes

¹²⁹ Referenced to the Energy White Paper "Securing Australia's Energy Future", http://www.dpmc.gov.au/publications/energy_future/docs/energy.pdf, pages 158-160

8.4 Analysis and Conclusions

The Energy White Paper “Securing Australia’s Energy Future” released by the Australian Government sets out a comprehensive strategy for sustainable energy. Energy use is the dominant source of greenhouse gas emissions in Australia. Though Australia has declared its intention not to ratify the Kyoto Protocol, it has been pursuing active climate policies. The Australian Greenhouse Office implements a range of programmes, namely Australian Coal Mine Methane Reduction Programme, Greenhouse Gas Abatement Programme, Low Emissions Technology and Abatement (LETA) initiative, Low Emission Technology Demonstration Fund and National Framework for Energy Efficiency. These programmes aim to reduce emissions from the energy sector while meeting the needs of the community for ecologically sustainable energy services.

For the energy situation in Hong Kong, the government has been aware of the negative effects of energy generation from burning of fossil fuels as it is the main energy source for electricity generation in Hong Kong. As a result, other alternatives like renewable energy are considered as an energy source substituting fossil fuels. The government developed the Energy Efficiency Office in order to provide to the public useful information on renewable energy technologies, so as to facilitate the wider adoption of such technologies in Hong Kong. Other ways to tackle the global problem of climate change and increasing trend in energy consumption in Hong Kong include launching different programmes and campaigns to promote energy conservation and efficiency, to arouse public awareness in global warming and to educate the public the correct ways to consume energy.

For the Environmental Evaluation/SEA in Australia, it is a statutory requirement under the Environment Protection and Biodiversity Conservation Act (EPBC Act, 1999) that an SEA-type process is required for policies, plans and programmes, including those energy-related policy, plan or programme which involves matters of national environmental significance covered by the EPBC Act.

In view of the SEA process adopted in Australia, there is an initial step of “screening” to decide the need and level of assessment requirement before the scoping procedure. On comparing the environmental evaluation framework with that in Hong Kong, it is believed that such preliminary screening would be a good reference to Hong Kong’s EIA procedures such that it can save time and money by carrying the appropriate type of assessments.



Wind farm¹³⁰



Use of solar energy¹³¹

¹³⁰ Source: <http://www1.sedo.energy.wa.gov.au/pages/waproj.asp>

¹³¹ Source: <http://www.greenhouse.gov.au/renewable/recp/pv/fifteen.html>

8.5 Examples of Energy Policies/Actions or their Environmental Evaluation/SEA

Example AU-1 Assessment Report For the Public Environmental Report For the Myponga/Sellicks Hill Wind Farm Proposal ¹³²	
Type of Study	Strategic Assessment (Required statutorily under the EPBC Act)
Description of Study	This Assessment Report assesses the social, environmental and economic impacts of the proposal for the construction of a wind farm comprising 20 wind turbine electricity generators and associated infrastructure including access tracks, underground and overhead wiring, substation, and operations and maintenance compound.
Summary of Alternatives	No alternatives were described in the study.
Scope of Assessment/ Study	The evaluation parameters in the study include: <ul style="list-style-type: none"> ● Erosion control and storm water management ● Noise management: ● Air quality ● Flora ● Fauna: ● Waste minimisation and management ● Chemical management and monitoring ● Protection of cultural and natural heritage issues
Environmental Measures	The mitigation measures proposed in the study include: <ul style="list-style-type: none"> ● Erosion control and stormwater management – To minimise the quantity of soil lost during construction and operation to protect existing drainage systems and waterways from silt and chemical contamination ● Noise management – To minimise noise emissions arising from the construction and operation of the wind farm ● Visual effects – Minimise or where possible avoid visual impact on surrounding residences ● Air quality – To minimise air emissions due to construction and operation activities (including exhaust emissions and airborne dust emissions) ● Flora – To minimise the disturbance to native vegetation and prevent the introduction of weeds during construction and operation ● Fauna – To minimise the impact on fauna and fauna habitats and to prevent pest species during construction and operation of the wind farm ● Waste minimisation and management – To ensure waste is managed appropriately and to minimise waste generated from construction and maintenance activities ● Chemical management and monitoring – Manage chemicals on-site, particularly dangerous goods and hazardous materials to avoid pollution of the environment or harm to persons ● Protection of cultural and natural heritage issues – To minimise the potential impacts associated with removing or discovering heritage items during construction and operational activities
Outcome of Study	This Assessment Report concludes that the proposed wind farm is appropriately located and will not have a significant detrimental effect on the environment or the community provided that the wind farm shall be developed in accordance with the site layout plan, the access route plan, and the electrical layout and connection routes plan.

¹³² <http://dataserver.planning.sa.gov.au/publications/960p.pdf>, Page 1,21-28 ,49, 51,63

Example AU-1 Assessment Report For the Public Environmental Report For the Myponga/Sellicks Hill Wind Farm Proposal ¹³²	
	In conclusion, the site is considered to be an appropriate location due to the wind resource, proximity to the grid and acceptable environmental and community impacts.

Example AU-2 Portland Wind Energy Project Environment Effects Statement and Planning Assessment Report ¹³³	
Type of Study	Sustainability Study (environmental, economic and social)
Description of Study	This study was prepared about the integrated development of four wind farms near Portland and Yambuk of Australia. This study describes the rationale for the Portland Wind Energy Project, the development proposal at each site of wind farms, potential economic, environmental and social impacts and recommended management measures. This study includes the conclusions which are drawn from the site-specific assessments, as well as a sustainability assessment of the overall project.
Summary of Alternatives	The alternatives for the wind farm site include: <ul style="list-style-type: none"> ● Cope Bridgewater ● Cape Nelson ● Cape Sir William Grant ● Yamnuk
Scope of Assessment/ Study	The evaluation parameters considered in the study: <ul style="list-style-type: none"> ● Natural ecosystems and biodiversity ● Landscape and visual ● Noise ● Surface water and groundwater
Environmental Measures	<p><u>Natural ecosystems and biodiversity</u></p> <ul style="list-style-type: none"> ● To minimise native vegetation clearance, the turbines, access roads and underground cables will be located to avoid areas of native vegetation and minimise impacts on areas of semi-native vegetation. ● Develop revegetation strategy in consultation with landowners and other stakeholders <p><u>Landscape and visual</u></p> <ul style="list-style-type: none"> ● The proposed wind farm layouts will be designed to comprise groupings of wind generators that integrate with the existing natural and cultural environments and which maintain the character of key views. <p><u>Noise</u></p> <ul style="list-style-type: none"> ● The wind farm layouts for each of the sites are predicted to result in operational noise levels at each residence that are below the recommended compliance noise level <p><u>Surface water and Groundwater</u></p> <ul style="list-style-type: none"> ● Maintenance of drainage patterns ● Minimisation of soil erosion and sediment containment of watercourses ● Dust control ● Management of hazardous materials and wastes in accordance with good

¹³³ <http://www.mretreview.gov.au/pubs/mret-submission224d2.pdf>, Pages 3, 8-22

Example AU-2 Portland Wind Energy Project Environment Effects Statement and Planning Assessment Report ¹³³	
	practice and legislation
Outcome of Study	<p>The sustainability assessment of the study considered the benefit of economic, environmental and social. The sustainability assessment of the proposed development indicates a strong compatibility with the principles of economic development, environmental sustainability and community well being. It is believed that the project will generate substantial net benefits in each sector of economic, environmental and social.</p> <p>For the location of wind farms, if deletion of any one of the proposed sites, particularly on Cape Bridgewater or Cape Nelson or other energetic locations at any of the sites would have the risk on the possible feasibility of the project and the establishment of a wind energy manufacturing industry in Victoria. The current scale and siting of the proposed development is difficult to achieve the benefits for the generation of 7% of the Commonwealth Government’s mandated renewable energy target.</p>