

SCHEDULE 1

SYDNEY CBD AND INNER SUBURBS 132kV CABLE PROJECT

CONDITIONS OF APPROVAL

The following acronyms and abbreviations are used in this schedule:

ASS	Acid Sulphate Soils
CWG	Community Working Group
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning or delegate
Director-General's Report	The report of the Director-General of the Department of Planning, prepared under section 115C of the Environmental Planning and Assessment Act 1979
DLWC	Department of Land and Water Conservation
DoP	Department of Planning
EIS	'Proposed Sydney CBD and Inner Suburbs 132 kV Cable Project – Environmental Impact Statement' prepared for EnergyAustralia by GHD and dated May 2001
EMF	Electric and Magnetic Fields
EMP	Environmental Management Plan
EMR	Environmental Management Representative
ENCM	Environmental Noise Control Manual
EP& A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
ESD	Ecologically Sustainable Development
KV	Kilovolts
LALC	Local Aboriginal Land Council
L ₁₀	The noise level, which is exceeded for 10 percent of the time and is approximately the average of maximum noise levels.
RBL	Rating Background Level
L ₁₀ 15 minutes 5dB(A)	For construction periods greater than twenty-six (26) weeks the EPA noise criteria is that L ₁₀ 15 minutes construction noise should not exceed the RBL by more than 5dB(A).
Minister, the	Minister for Planning
NPWS	National Parks and Wildlife Service
Proponent	EnergyAustralia
Relevant Councils	South Sydney City Council, Council of the City of Sydney
Representations Report	'Proposed Sydney CBD and Inner Suburbs 132 kV Cable Project Representations Report' prepared by EnergyAustralia and dated October 2001;
RIC	Rail Infrastructure Corporation
RTA	Roads and Traffic Authority

General

1. The proposal shall be carried out in accordance with:
 - (a) the proposal contained in the Environmental Impact Statement (EIS) 'Sydney CBD and Inner Suburbs 132KV Cable Project' prepared for EnergyAustralia by GHD and dated May 2001 and as modified by the Representations Report 'Sydney CBD and Inner Suburbs 132KV

Cable Project' prepared by EnergyAustralia and dated October 2001, and other modifications referred to in section 5 of the Director-General's report;

- (b) all identified Sub Plans, safeguards and mitigation measures identified in the EIS and Representations Report; and
- (c) the conditions of approval granted by the Minister.

Despite the above, in the event of any inconsistency with the proposal as described in the EIS and Representations Report, the conditions of approval granted by the Minister shall prevail.

These conditions do not relieve the Proponent of the obligation to obtain all other approvals and licences from all relevant authorities required under any other Act. Without affecting the generality of the foregoing, the Proponent shall comply with the terms and conditions of such approvals and licences.

It shall be the ultimate responsibility of the Proponent to ensure compliance with all conditions of approval granted by the Minister.

Compliance

General

- 2. The Proponent shall comply with, or ensure compliance with, all requirements of the Director-General in respect of the implementation of any measures arising from the conditions of this approval. The Proponent shall bring to the attention of the Director-General any matter that may require further investigation and the issuing of instructions from the Director-General. The Proponent shall ensure that these instructions are implemented to the satisfaction of the Director-General within such time that the Director-General may specify.

Pre-Construction Compliance Report

- 3. At least two weeks prior to commencement of substantial construction (or within such period as otherwise agreed by the Director-General), the Proponent shall submit for approval of the Director-General a report detailing compliance with all relevant conditions that apply prior to commencement of substantial construction and shall address:
 - (a) the dates of submission of the various studies and/or requirements of various relevant conditions, and their approval and terms of approval; and
 - (b) action taken or proposed to implement the recommendations made in terms of approvals and/or studies.

For the purpose of this clause, substantial construction at the Police Centre site is deemed to commence once the roadheader starts the tunnelling works.

Pre-Operation Compliance Report

- 4. At least one month prior to commissioning of the proposal, the Proponent shall submit for approval of the Director-General a report detailing compliance with all relevant conditions that apply prior to commencement of operation and shall address:
 - (a) the dates of submissions of the various studies and/or requirements of various relevant conditions, and their approval and terms of approval; and
 - (b) action taken or proposed to implement the recommendations made in terms of approvals and/or studies.

The period of one month referred to in this condition above may be altered as agreed by the Director-General.

Dispute Resolution

5. The Proponent shall endeavour, as far as possible, to resolve any dispute with relevant public authorities arising out of the implementation of the conditions of this approval. Should this not be possible, the matter shall be referred firstly to the Director-General and if the matter cannot be resolved, then to the Minister for resolution. The Minister's determination of the disagreement shall be final and binding on all parties.

Contact Telephone Number

6. Prior to the commencement of construction, the Proponent shall institute, publicise and list with a telephone company a 24 hour complaints contact telephone number, which would enable any member of the general public to reach a person who can arrange appropriate response action to the complaint.

Complaints Register

7. The Proponent shall record details of all complaints received during construction and ensure that an initial response to the complaint is provided within 24 hours, and a detailed response within 10 days. Information on all complaints received shall be made available on request to the Director-General and all relevant government agencies. The Proponent shall nominate an appropriate person(s) to receive, log, track and respond to complaints within the specified timeframe. The name and contact details of this person(s) shall be provided to the relevant Council(s) and the Director-General upon appointment or upon any changes to that appointment.

Project Commencement

8. The Proponent shall notify the Director-General and all relevant authorities in writing of the project commencement, both in terms of construction and operation.

Advertisement of Activities

9. Prior to the commencement of construction, the proponent shall undertake consultation with all relevant Councils and the Community Working Group, as specified in Condition 14, to develop appropriate notification requirements and signage. As a minimum, the Proponent shall, prior to the commencement of construction, and then at three-monthly intervals, advertise in relevant local newspapers the nature of the works proposed for the forthcoming three months, the areas in which these works are proposed to occur, the hours of operation and a contact telephone number.
10. The Proponent shall ensure that the local community is kept informed (by way of local newsletters, leaflets, newspaper advertisements, and community noticeboards, etc.) of the progress of the project, including any traffic disruptions and controls, construction of temporary detours and work required outside the nominated working hours, prior to such works being undertaken.
11. All non English speaking background communities (NESB) along the route should be identified and arrangements made for persons from NESB to raise concerns or ask questions before and during construction.
12. The Proponent shall establish a project Internet web site prior to the commencement of construction and maintain the Internet web site until 12 months after commencement of operation of the project. This Internet web site shall contain monthly updates of work progress and consultation activities, including but not limited to:

- (a) a description of relevant approval authorities and their areas of responsibility;
- (b) a list of environmental management plans and reports that are publicly available and the executive summaries of those reports;
- (c) minutes of local community working group meetings; annual reports and other public reports required by this approval, and results and interpretation of monitoring required by this approval;
- (d) links to all newsletters;
- (e) contact names and phone numbers of the project communications staff; and
- (f) 24 hour toll-free complaints contact telephone number.

The Internet address is to be made publicly available.

13. Updates of work progress and construction activities shall be provided more frequently where significant changes in noise impacts are expected.

Community Working Group

14. The existing Community Working Group shall be maintained for the construction period to discuss detailed design issues and methods for minimising the impact on the local community and businesses during the construction stage.

The Proponent shall:

- (a) maintain the representative Community Working Group, having considered the *Guidelines for the Establishment of the Community Liaison Groups* (see Attachment 1);
- (b) ensure that a meeting is held prior to submission of the Construction Environmental Management Plan required under Condition 20;
- (c) nominate a chair to be approved by the Director-General;
- (d) employ a nominated person to serve as Community Liaison Representative. This person shall be approved by the Director-General;
- (e) allow the Group to make comments and recommendations about the implementation of the development and environmental management plans, monitor compliance with conditions of this approval and other matters relevant to the construction of the development;
- (f) ensure that the Group has access to the necessary plans and information for such purposes; and provide appropriate facilities and information to assist the Group in carrying out its functions;
- (g) consider the recommendations and comments of the Group and provide a response to the Group and Director-General;
- (h) ensure that the Group includes the Environmental Management Representative, representatives from the Proponent, the contractor/s, relevant local community and business groups including the Non English Speaking Background community, and relevant Councils unless otherwise agreed by the Director-General.

The Proponent shall bear all costs associated with the establishment and ongoing function of the Group. This includes the cost associated with (d); above: employment of the Community Liaison Representative.

The Community Liaison Representative (CLR) shall resolve community complaints to the greatest extent possible. The CLR shall be experienced in mediating disputes, oversee community consultation, and contact the EMR if an unacceptable noise or other impact is being generated.

The Group may make comments and recommendations about the urban design and construction of the proposal, which shall be considered by the Proponent. Issues for discussion shall include, but not be limited to, property/business impacts; noise control measures; traffic and access arrangements; spoil management; air and water quality; landscaping requirements and any other issues considered relevant by the Group.

Details of the Group, including membership and meeting schedules should be incorporated in the Construction EMP referred to in Condition 20.

Environmental Management Representative

15. The Proponent shall employ an Environmental Management Representative (EMR) who demonstrates compliance with AS/NZS ISO 14012:1996 *Guidelines for Environmental Auditing : Qualification criteria for environmental auditors*.
16. The EMR shall be approved by the Director-General prior to the commencement of construction.
17. The EMR shall be available during construction activity at the site and be present on-site during any critical construction activities as defined in the Environmental Management Plan (EMP).
18. The EMR shall:
 - (a) have responsibility for considering and advising on matters specified in the conditions of approval and compliance with such;
 - (b) review and approve the Proponent's induction and training programme for all persons involved in the construction activities and monitor implementation;
 - (c) periodically audit the Proponent's environmental activities to evaluate the implementation, effectiveness and level of compliance of on-site construction activities with the EMP and associated plans and procedures, including carrying out site inspections at least fortnightly;
 - (d) record and provide a written report to the Proponent of non-conformances with the EMP and require the Proponent to undertake mitigation measures to avoid or minimise any adverse impacts on the environment or report required changes to the EMP;
 - (e) direct the Proponent to stop work immediately where considered necessary, if in the view of the EMR an unacceptable impact on the environment is likely to occur, or require other reasonable steps to be taken to avoid or minimise any adverse impacts;
 - (f) review corrective and preventative actions to ensure the implementation of recommendations made from the audits and site inspections;
 - (g) report monthly to the project manager;
 - (h) review and approve minor revisions to the EMP;
 - (i) provide information for community consultation, liaison with regulators, and respond to customer environmental complaints as required;
 - (j) provide reports to DoP on matters relevant to the carrying out of the EMR role as necessary including notifying DoP of any stop work notices; and
 - (k) certify the Construction and Operational EMP in accordance with Conditions 20 and 22.

Environmental Management System

19. The Proponent shall ensure the appointment of construction and/or operation head contractors that have an Environmental Management System prepared in accordance with the AS/NZS ISO 14000 series or BS7750-1994 certified by an accredited certifier and/or have a proven environmental management performance record.

Construction Environmental Management Plan

20. Prior to the commencement of construction, a Construction Environmental Management Plan (CEMP) shall be prepared, following consultation with the EPA, RIC, RTA, DLWC and relevant Councils. Where construction activities may be undertaken in discrete stages, the Proponent may prepare individual EMPs relating to specific stages of construction. An outline of any proposed staging of EMPs shall require the approval of the Director-General.

The Construction Environmental Management Plan (CEMP) shall be prepared in accordance with the conditions of this approval, all relevant Acts and Regulations and accepted best practice management Sub Plans.

The CEMP shall be certified by the EMR as being in accordance with the conditions of approval prior to seeking approval of the Director-General. The CEMP shall be approved by the Director-General prior to the commencement of substantial construction works.

The Construction Environmental Management Plan (CEMP) shall:

- (a) address construction activities associated with all key construction sites, including staging and timing of the proposed works;
- (b) clearly identify on a map the location of the cable and ancillary facilities;
- (c) cover specific environmental management objectives and strategies for the main environmental system elements and include, but not be limited to: noise and vibration; air quality; water quality; erosion and sedimentation; access and traffic; property acquisition and/or adjustments; heritage and archaeology; groundwater; acid sulphate soils; spoil stockpiling and disposal; contaminated land; waste management; street tree protection; flooding and stormwater control; geotechnical issues and settlement; visual screening, landscaping and rehabilitation; contractors facilities; refuelling and fuel storage areas; hazards and risks; energy use, resource use and recycling; and utilities; and
- (d) address, but not be limited to:
 - (i) identification of the statutory and other obligations which the Proponent is required to fulfil during project construction, including all approvals and consultations/agreements required from other authorities and stakeholders, and key legislation and policies which control the Proponent's construction of the project;
 - (ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to compliance with the EMP;
 - (iii) measures to avoid and/or control the occurrence of environmental impacts;
 - (iv) measures (where practicable and cost effective) to provide positive environmental offsets to unavoidable environmental impacts;
 - (v) the role of the EMR;
 - (vi) environmental management Sub Plans for all construction processes which are important for the quality of the environment in respect of permanent and/or temporary works;
 - (vii) monitoring, inspection and test plans for all activities and environmental qualities which are important to the environmental management of the project, including performance criteria, specific tests, protocols (eg. frequency and location) and Sub Plans to follow;
 - (viii) environmental management instructions for all complex environmental control processes which do not follow common practice or where the absence of such instructions could be potentially detrimental to the environment;
 - (ix) steps the Proponent intends to take to ensure that all plans and Sub Plans are being complied with;
 - (x) consultation requirements with relevant government agencies; and
 - (xi) community consultation and notification strategy (including local community, relevant government agencies, and relevant Councils), and complaint handling Sub Plans.

Specific requirements for some of the main environmental system elements referred to in (c) shall be as required under the conditions of this approval and/or as required under any licence or approval.

The Construction EMP shall be made publicly available.

Environmental Monitoring – Construction

21. The Proponent shall submit to the Director-General a report(s) in respect of the environmental performance of the construction works and compliance with the Construction EMP and any other relevant conditions of this approval. The reports shall be prepared within six months of the start of substantial construction and thereafter at six monthly intervals or at other such periods as requested by the Director-General to ensure adequate environmental performance over the duration of the construction works. The report(s) shall include, but not be limited to, information on the:
- (a) applications for consents, licences and approvals, and responses from relevant authorities;
 - (b) implementation and effectiveness of environmental controls and conditions relating to the work undertaken;
 - (c) identification of construction impact predictions made in the EIS and any supplementary studies and details of the extent to which actual impacts reflected the predictions;
 - (d) details and analysis of results of environmental monitoring;
 - (e) number and details of any complaints, including summary of main areas of complaint, action taken, response given and intended strategies to reduce complaints of a similar nature; and
 - (f) any other matter relating to the compliance by the Proponent with the conditions of this approval or as requested by the Director-General.

The report(s) shall be provided to the EPA, Community Working Group and all relevant Councils, and any other relevant government agency nominated by the Director-General. The report(s) shall also be made publicly available.

Operational Environmental Management Plan

22. An Operational Environmental Management Plan (OEMP) shall be prepared prior to the commencement of operation. The Operational EMP shall be prepared in consultation with the EPA and all relevant Councils and any other relevant government agency nominated by the Director-General. The Operational EMP shall be prepared in accordance with the conditions of this approval, all relevant Acts and Regulations and accepted best practice management procedures.

The OEMP shall be certified by the EMR as being in accordance with the conditions of approval prior to seeking the approval of the Director-General. The OEMP shall be submitted to the Director-General for approval prior to commissioning.

The Operational EMP shall include but not be limited to:

- (a) identification of the statutory and other obligations which the Proponent is required to fulfil, including all licences/approvals and consultations/agreements required from authorities and other stakeholders, and key legislation and policies which control the Proponent's operation of the project;
- (b) identification of environmental performance criteria;
- (c) a detailed description of the sampling strategies and monitoring protocols (eg. specific monitoring requirements, and sampling frequency and location). This description should include the specific requirements of the EPA and how the sampling strategies and monitoring protocols are to be used to test against the environmental performance criteria;
- (d) steps that the Proponent intends to take to ensure compliance with all plans and procedures;
- (e) description of the consultation requirements/arrangements with relevant government agencies, the local community and relevant Councils, including complaints handling procedures; and,
- (f) management strategies for the environmental system elements including, but not limited to: magnetic field monitoring; interference with electrical/electronic and other equipment (such as communication/receival devices and devices required for human health such as pacemakers); property impacts; noise and vibration; water quality; groundwater; settlement; erosion and sedimentation; air quality; access and traffic; hydrology and flooding; visual

screening, landscaping and rehabilitation; maintenance; hazards and risks; waste management (removal/disposal); and energy use, resource use and recycling.

Specific requirements for some of the environmental system elements referred to in (f) shall be as detailed under the conditions of this approval and/or as required under any licence or approval.

23. All sampling strategies and protocols undertaken as part of the Operational EMP shall include a quality assurance/quality control plan and shall be approved by the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring programme. Only NATA accredited laboratories can be used for laboratory analysis.
24. The Operational EMP shall be made publicly available after approval by the Director-General.

Environmental Impact Audit Report

25. An Environmental Impact Audit Report shall be prepared:

- (a) by an independent person(s) or organisation approved by the Director-General, at the Proponent's expense;
- (b) submitted to the Director-General, the EPA, relevant Councils, and upon request by the Director-General, to any other relevant government authority;
- (c) within 2 months after the first 12 months of operation, or at any time as requested by the Director-General.

The Environmental Impact Audit Report shall assess the key impact predictions made in the EIS and any supplementary studies and detail the extent to which actual impacts reflect the predictions during the first 12 months of operation and any other periods as required. The Report shall provide details on actual versus predicted impacts for all key issues identified in the EIS. The suitability of implemented mitigation measures and safeguards shall also be assessed. The Report shall also assess compliance with the Operational EMP. The Report shall discuss results of consultation with the local community in terms of feedback/complaints on the construction and operation phase of the project and any issues of concern raised.

The Report shall be made publicly available after approval by the Director-General. The Proponent shall comply with all requirements of the Director-General, EPA and other relevant authorities with respect to any reasonable measure arising from, or recommendations in, the report.

Demand Management

26. The Proponent is to contribute to a special purpose fund, in partnership with TransGrid, to underwrite a programme of activities to offset the environmental and social impacts of providing additional electricity supplies to the inner Sydney Region, by investigating the potential for reducing the demand for electricity by all classes of consumers.
27. The fund will receive a total injection of \$10m over a period of five years, split equally between the two contributors.
28. The fund will be established and supported by the Director-General. It will be managed by a Committee comprising a nominee of the Director-General and a representative from each of the Proponent and TransGrid. The region covered by the fund will be the distribution sector of the Sydney region generally supplied from the interconnected network between TransGrid's Sydney North, Sydney South and Beaconsfield substations.

29. The Management Committee will produce guidelines describing how the fund will operate and be administered and submit these for approval by the Director-General, who may also approve variations to it on the advice of the Committee. The guidelines will include provisions for independent auditing to ensure transparency and the prudent disposition of the funds in achieving the required outcomes.
30. A report on the activities supported by the fund and its administration will be prepared and made publicly available at the end of each financial year.
31. The activities to be supported by the fund are to include, but not be limited to:

Preparing an inventory of the existing standby generation facilities in public and private sector premises in the CBD and inner Sydney region that may be suitable for supplementing the supply of electricity in the network. The inventory (which can be modelled on the detailed California database) should include:

- (a) the type, age, capacity, location, owner and service contractor for each on-site generator with a nameplate capacity exceeding 300kW;
 - (b) a quantitative and qualitative rating of the generator for its efficiency and environmental performance. The aim would be to identify cleaner systems that may be more appropriate for more extended use and ones with higher emissions and/or lower efficiencies that are suitable for emergency back-up purposes only; and
 - (c) an assessment of the average and peak electricity demand for the sites being supplied and a determination of the likely capacity available for network demand reduction.
32. Subsequent to the preparation of a comprehensive inventory, an implementation strategy is to be prepared demonstrating how each standby generator could best be called upon at times of stress on the supply network to:
 - (a) take load off the system by meeting the load requirements of the sites they serve; and,
 - (b) if practicable, reduce network demand further by supplying any surplus electricity into the network.
 33. The implementation strategy is to recommend technical, commercial and operational approaches to maximising the opportunities to rely on this distributed energy source, and provide a model business case for the owners of standby generators that demonstrates how they could be compensated to make their involvement commercially viable. Following implementation, the model is to be documented and made available for use in other constrained regions in NSW seeking to implement distributed generation.
 34. The strategy is to evaluate the major facilities in the region that offer opportunities for power factor correction. Each site evaluation should include:
 - (a) Measurement of the current power factor;
 - (b) Assessment of opportunities for power factor correction; and
 - (c) Preparation of a summary business case for each site where opportunities exist.

The evaluation approach and summary information is to be documented and made available for use in other constrained regions in NSW seeking to implement a power factor correction initiative.

35. The strategy should evaluate the major facilities for interruptible load opportunities. Each site evaluation should include:
 - (a) identification of any loads that could potentially be interrupted without causing major disruption or inconvenience;

- (b) a technical and commercial assessment of the feasibility of interrupting identified loads; and
- (c) preparation of a summary business case for each site where opportunities exist.

A summary of the database that results from this project is to be documented and made available for use in other constrained regions in NSW seeking to implement load interruptibility initiatives.

36. The strategy should evaluate the major facilities for their energy demand reduction opportunities, including improvements in equipment efficiency, cogeneration and energy management controls. Each site evaluation should include:
- (a) an energy audit, including evaluation of energy usage characteristics and characterisation of thermal loads;
 - (b) technical and commercial assessment of the feasibility of any energy demand reduction opportunities identified;
 - (c) preparation of an energy demand reduction programme; and
 - (d) preparation of a summary business case for each site where opportunities exist.
37. Where relevant to the objectives of providing practical and accurate information on the opportunities for demand reduction, the strategy should support the implementation and promotion of demonstration projects. The range of projects considered should encompass a wide range of target sites and include documentation of the technical and commercial aspects to assist in the dissemination of information to building owners, developers, design professionals, energy service providers, other network service providers and the general public.

Tunnel Structural Integrity

38. The Proponent shall ensure that the structural integrity of the Tunnel Section is certified by a suitably qualified structural engineer prior to the operation of the cable. A copy of the certificate is to be included in the OEMP.

Property and Land Use

39. The Proponent shall consult on a regular basis with all affected landowners regarding any practical and cost-effective measures to minimise impacts which may be implemented prior to the commencement of construction, or within such time as agreed with the relevant landowner.
40. Prior to the placement of permanent rock anchors, the Proponent shall notify the owners of all affected properties of the need for placement of permanent rock anchors. The Proponent must provide sufficient detail to each owner to enable the precise location of such anchors relative to existing buildings to be determined. The Proponent must ensure, if necessary, adjustments to construction methods, at no cost to the property owner, to ensure that the placement of any rock anchors or other such construction stage measure does not impose any unreasonable restrictions on development of the affected property unless otherwise agreed by the landowner.
41. Prior to the placement of temporary soil or sand anchors the Proponent shall notify all affected property owners of the need for placement of temporary anchors and shall provide sufficient detail to determine the precise location of such anchors relative to existing buildings. The Proponent shall instigate, if necessary, adjustments to construction methods at no cost to the property owner, to ensure that the placement of any temporary soil anchors or other such construction stage measure does not impose any unreasonable restrictions on development (existing or proposed) unless otherwise agreed to by the landowner.
42. Structural surveys must be undertaken, prior to commencement of construction works, for all buildings and major structures above the tunnel works and other buildings/structures likely to be affected by tunnel works or other major vibration inducing construction activities in the vicinity of the buildings and structures. The Proponent must ensure that all affected property owners are

notified of the survey and of their rights. A copy of the survey shall be given to each affected property owner upon request. The Proponent shall ensure that any damage occurring as a result of the construction is fully rectified at no cost to the owner(s). The extent of the survey shall be defined in the Construction EMP referred to in Condition 20. A suitably qualified structural engineer must certify that the survey area encompasses the maximum area that could be reasonably expected to be impacted by tunnelling or other major vibration inducing works.

43. Alternative access arrangements shall be provided to the reasonable satisfaction of the relevant Council, to any property or public area that would otherwise be denied access as a result of the construction or operation of the proposal. Such alternative access shall be provided at an appropriate standard to the reasonable satisfaction of the relevant Council. Any temporary access road(s) shall be removed and any affected areas reinstated to the reasonable satisfaction of the relevant Council when no longer required.
44. The proponent shall ensure that any access way affected by the proposal is reinstated to an equivalent standard or that adequate compensation is negotiated with the relevant landowner.
45. A detailed Signage Plan shall be prepared in consultation with the relevant Councils and all potentially affected businesses, with the objective of minimising impact on local businesses during the construction stage.

Traffic and Roadworks

Construction Traffic Management Sub Plan

46. As part of the Construction EMP referred to in Condition 20, a detailed Construction Traffic Management Sub Plan must be prepared prior to the commencement of construction works. The Sub Plan must be prepared in consultation with the RTA, relevant Councils and bus operators. It must address, but is not limited to:
 - (a) Minimising and monitoring use of local roads by heavy vehicles;
 - (b) Identification and designation of heavy vehicle routes, including spoil trucks;
 - (c) Adequate access to properties during construction;
 - (d) Scheduling of works to minimise traffic disruption;
 - (e) Safe pedestrian and cyclist movement;
 - (f) Safe traffic movement and access;
 - (g) Loss of parking spaces and provision of alternative spaces;
 - (h) Minimising worker car use;
 - (i) Minimising disruption to business activities;
 - (j) Ensuring adequate access for buses, and where bus stops are relocated alternatives are provided in close proximity and adequately sign posted; and
 - (k) Ensuring adequate access is available for garbage trucks and other service vehicles.

Castlereagh Street

47. Castlereagh Street is not to be closed unless the Proponent has obtained the Minister's separate and specific approval. In seeking the Minister's approval, the Proponent must:
 - (a) demonstrate that it is essential the site be utilised to ensure the project can be completed within a reasonable time; and
 - (b) prepare a detailed site specific traffic management plan.

The traffic management plan shall address the effects on bus movements, pedestrian access and vehicle access and demonstrate that such impacts can be adequately managed. It must be prepared in consultation with:

- (a) Sydney City Council;

- (b) Roads and Traffic Authority (RTA); and
- (c) State Transit Authority (STA).

The plan must also address the issues identified in Condition 46.

Road Dilapidation Report

48. A road dilapidation report shall be prepared for all non-State roads likely to be used by construction traffic prior to commencement of construction and after construction is complete. Copies of the report shall be provided to all relevant Councils. Any road/footpath damage, aside from that resulting from normal wear and tear, shall be repaired to a standard at least equivalent to that existing prior to the damage, at the cost of the Proponent and should be compliant with *Auspec 306U – Road openings and Restorations*.

Railway Lines

49. Any crossing of railway corridors and use of railway easements must be in accordance with the Rail Infrastructure Corporation's requirements. Any disturbed land and facilities shall be restored at the Proponent's cost to the satisfaction of the RIC.

Noise and Vibration

Pre-Construction Noise Monitoring

50. The Proponent shall undertake site specific ambient noise level monitoring to ascertain background levels at adit sites, material access shaft locations, construction sites, and site compounds.

Pre-Construction Noise Assessment

51. The Proponent shall undertake detailed noise assessments prior to the completion of the Construction Noise and Vibration Management Sub Plan. The noise assessment shall include the scope and nature of noise impacts and proposed mitigation measures associated with the changes to construction methods and scheduling as proposed in section 4.3 of the Representations Report.

Construction Noise and Vibration Management Sub Plan

52. A detailed Construction Noise and Vibration Management Sub Plan shall be prepared as part of the Construction EMP referred to in Condition 20 in consultation with the Director-General, the EPA, and relevant Council(s). In addition to relevant government agencies, Council(s) and the CWG must also be consulted for the tunnel section and adit site. The Sub Plan shall provide details of noise and vibration control and management measures to be undertaken during the construction stage. Detailed analysis and assessment of potential impacts and mitigation measures shall be undertaken for each specific site through the Specific Construction Noise Impact Statements required in Condition 54. The Sub Plan shall include, but not be limited to:
- (a) identification of each work area, site compound and construction depot;
 - (b) identification of general activities that will be carried out and associated noise sources for each work area, site compound and construction depot;
 - (c) identification of the appropriate construction noise objective for the project with regard to the requirements of Condition 55;
 - (d) identification of appropriate construction vibration objectives with regard to the requirements of Condition 70;
 - (e) establishment of procedures for the assessment of noise and vibration impacts from each work site with regard to the requirements of Condition 54;

- (f) details of the overall management methods and procedures that will be implemented to control noise and vibration from the construction stage of the project;
- (g) a pro-active and reactive strategy for dealing with complaints including compliance with Conditions 54, 55 and 70;
- (h) noise and vibration monitoring, reporting and response procedures;
- (i) internal audits of compliance of all plant and equipment;
- (j) construction timetabling, in particular works outside standard hours, to minimise noise impacts;
- (k) procedures for notifying residents of construction activities likely to affect their noise and vibration amenity; and
- (l) contingency plans to be implemented in the event of non-compliances and/or noise complaints.

With respect to b) above, the Proponent shall consider the use of a range of structural and non-structural measures during construction including barriers, acoustic treatment of residences, scheduling of construction activities to minimise impacts and temporary relocation of affected residents.

The Proponent shall submit a copy of the finalised Construction Noise and Vibration Management Sub Plan to the EPA.

Construction Hours

53. All construction activities, including entry and departure of heavy vehicles, and transportation of spoil shall be restricted to the hours of 7.00am to 6.00pm (Monday to Friday); 8.00am to 1.00pm (Saturday) and at no time on Sundays and public holidays.

Works outside these hours that may be permitted include:

- (a) any works which do not cause noise emissions to be audible at any nearby residential property;
- (b) the delivery of materials which is required outside these hours as requested by Police or other authorities for safety reasons;
- (c) emergency work to avoid the loss of lives, property and/or to prevent environmental harm;
- (d) tunnel excavation and other sub-surface activities (excluding the use of rock hammers between 10pm to 7am), providing the criteria in Conditions 55 and 56 can be met; and
- (e) any other work approved by the Director-General through the Noise and Vibration Management Sub Plan (Construction) Process. Potentially affected noise receivers shall be informed of the timing and duration of any such works, at least 48 hours prior to commencement of the work.

Construction Noise Impact Statements

54. Specific Construction Noise Impact Statements shall be prepared in consultation with the Director-General, the EPA, other relevant government agencies, relevant Councils, and the CWG for specific stages of construction. These statements are to be consistent with the Construction Noise and Vibration Management Sub Plan and shall specifically address each of the major construction sites. The statements shall include:

- (a) a description of the proposed processes and activities;
- (b) identification of all potentially affected noise sensitive receivers including residences, schools, commercial premises and noise sensitive equipment;
- (c) determination of appropriate noise and vibration objectives for each identified noise sensitive receiver;
- (d) assessment of potential noise impacts from the proposed construction methods including noise from construction vehicles and noise impacts from required traffic diversions;

- (e) examination of all reasonable and feasible noise mitigation measures including the use of alternative construction methods where potential noise impacts exceeds the relevant objectives;
- (f) description and commitment to work practices which limit noise;
- (g) description of specific noise mitigation treatments and time restrictions including respite periods, duration, and frequency (where possible programming of night works over consecutive nights in the same locality shall be avoided);
- (h) justification for any activities outside the normal hours specified in Condition 53;
- (i) extent of noise monitoring;
- (j) internal noise audit systems including recording of daily hours of construction, progressive impact assessments as the work proceeds, conducting informal checks by the EMR, providing active and continuous communication links to relevant Councils, residents etc;
- (k) community consultation and notification;
- (l) assessment and examination of potential reasonable and feasible offsite mitigation measures for traffic noise; and
- (m) additional noise mitigation measures as successfully negotiated with affected residents and other sensitive receptors.

With respect to (e) above, the Proponent shall consider the use of a range of structural and non-structural measures during construction including barriers, acoustic treatment of residences, scheduling of construction activities to minimise impacts and temporary relocation of affected residences.

The Proponent shall submit a copy of each finalised Construction Noise Impact Statement to the EPA.

Construction Noise Criteria

- 55. The Proponent shall ensure that noise from construction activities is limited to the L_{10} level measured over a period of not less than 15 minutes not exceeding the background level by more than 5dB(A) at any residence or other sensitive receiver unless specified in the Construction Noise Impact Statement prepared in accordance with Condition 54.

For the purposes of the noise criteria for this condition, 5dB(A) must be added to the measured level if the noise from the activity is substantially tonal or impulsive in nature in accordance with the approach specified in Chapter 4 of the NSW Industrial Noise Policy.

Regenerated Noise Criteria

- 56. Regenerated noise from construction works shall not exceed the following criteria as measured at the nearest sensitive receptor:

- (a) 40 dBA between the hours of 6:00 pm and 10:00 pm; and
- (b) 35 dBA between the hours of 10:00 pm and 7:00 am.

These limits shall be implemented unless otherwise approved by the Director-General. The Proponent must provide the following details to the Director-General for consideration:

- (a) identification of potentially affected residences;
- (b) predicted regenerated noise impacts;
- (c) time periods when these impacts will occur;
- (d) duration of the impacts;
- (e) justification as to why the work needs to be undertaken during night time hours;
- (f) an analysis of alternative methods;
- (g) management measures that will be implemented including community consultation and provision of a 24-hour complaints line; and

- (h) contingency measures to be implemented in the event of noise complaints.
57. Prior to commencement of construction, the Proponent shall endeavour through the community consultation process to identify potential highly sensitive facilities, including scientific equipment, measuring equipment, photographic equipment, printing press and the like where the criteria in Condition 55 may not be adequate. Should such cases arise the Proponent shall consult with the potentially affected owners and develop appropriate mitigation measures to ensure impacts are acceptable.
58. The Construction Noise and Vibration Management Sub Plan required by Condition 52 shall address the following issues in relation to regenerated noise:
- (a) identification of known high-risk areas where there is potential for exceedances and measures for dealing with unexpected exceedances;
 - (b) qualification of the potential range of impact above the criterion at the identified receivers;
 - (c) identification of all reasonable and feasible mitigation and management measures that will be applied;
 - (d) establishment of appropriate community consultation procedures to ensure that the community is notified of the potential impacts and community views are considered; and
 - (e) contingency measures where significant community reaction occurs which could include cessation of work or as negotiated with affected residents.

Construction Noise Management

59. The Proponent shall implement all reasonable best practice noise mitigation and management measures including:
- (a) maximising the offset distance between noisy plant items and nearby noise sensitive receivers;
 - (b) avoiding the co-incidence of noisy plant working simultaneously close together and adjacent to sensitive receivers;
 - (c) minimising consecutive night time works in the same locality;
 - (d) orienting equipment away from sensitive areas;
 - (e) carrying out loading and unloading away from noise sensitive areas; and,
 - (f) selecting site access points and roads as far as possible away from sensitive receivers.
60. Construction noise levels shall be monitored to verify compliance with the Construction Noise and Vibration Management Sub Plan. Should monitoring indicate exceedances of the Construction Noise and Vibration Management Sub Plan, the Proponent shall consult with the Director-General and implement best available additional mitigation measures.
61. The Proponent shall ensure that rock breaking, rock hammering, sheet piling and any other activities at or near ground level which result in impulsive tonal noise generation are limited to the following hours unless otherwise permitted by the Director-General:
- (a) 8 am to 12 pm, Monday to Saturday; and
 - (b) 2 pm to 5 pm Monday to Friday.
62. Where these activities are undertaken for a continuous three hour period and are audible to noise sensitive receptors, a minimum respite period of at least one hour shall be scheduled before activities re-commence.
63. The Proponent shall ensure that no public address systems are used at any construction sites outside the standard working hours detailed in Condition 53. Any public address system shall be

designed and installed with their pointing axis directed away from residential buildings and sensitive receptors.

64. In order to minimise noise impacts during construction, the Proponent shall consult with relevant Council(s) and where reasonable and feasible, erect operational noise mitigation measures prior to the commencement of construction.
65. The Proponent shall use only dampened rock hammers and/or “city” rock hammers to minimise the impacts associated with rock-breaking works.
66. The Proponent shall take reasonable steps to control noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks. Examples of appropriate noise control could include efficient silencers, low noise mufflers and alternatives to reversing alarms.
67. The Proponent shall ensure that the entry and departure of heavy vehicles are restricted to the standard daytime construction limitations as specified in Condition 53.
68. The Proponent shall ensure that the noisiest activities associated with night time works are scheduled wherever possible to be completed before midnight.

Blasting

69. The Proponent shall not undertake any blasting.

Vibration Criteria

70. The Proponent shall ensure that vibration resulting from construction of the project is limited to:
 - (a) For structural damage vibration - German Standard DIN 4150 and BS 7385: Part 2 – 1993; and,
 - (b) For human exposure to vibration – the evaluation criteria presented in British Standard BS 6472 or AS2670 for low probability of adverse comment unless as otherwise agreed by the Director-General in consultation with EPA through the construction noise and vibration management sub plan.

Where there is an inconsistency between these standards, the more stringent criteria shall apply.

71. Unless otherwise agreed by the Director-General vibration levels shall not exceed 3 mm/s at the building foundation of heritage buildings and sensitive structures.
72. Prior to commencement of construction activities likely to result in high vibration levels, the Proponent shall endeavour through the community consultation process to identify potential highly sensitive facilities, including scientific equipment, measuring equipment, printing press and the like where the criteria in Condition 70 may not be adequate. Should such cases arise the Proponent shall consult with the potentially affected owners and develop appropriate mitigation measures to ensure impacts are acceptable.

Vibration Management

73. The Proponent shall ensure that wherever practical, piling activities are completed using bored piles. If driven piles are required they shall only be installed with the approval of the Director-General.

Operational Noise Management Sub Plan

74. As part of the Operational EMP referred to in Condition 22 the Proponent shall prepare a detailed Operational Noise Management Sub Plan. The Sub Plan shall provide details of noise and vibration control measures to be undertaken during the operation stages in accordance with the EPA's Industrial Noise Policy. The Sub Plan shall include, but not be limited to:

- (a) predicted noise levels;
- (b) location, type and timing of erection of permanent noise barriers and/or other noise mitigation measures demonstrating best practice including silencers and building treatments for associated plant rooms and enclosures for exposed plant;
- (c) specific physical and managerial measures for controlling noise;
- (d) noise monitoring, reporting and response procedures; and
- (e) the urban design issues relating to noise control measures.

The Proponent shall submit a copy of the Operational Noise Management Sub Plan to the EPA.

Operational Noise Management

75. Monitoring of operational noise shall be undertaken in accordance with the Operational Noise Management Sub Plan. The Proponent shall assess the adequacy of the ventilation noise mitigation measures within six months of opening the tunnel with regard to the criteria specified in the Operational Noise Management Sub Plan. Should assessment indicate a clear trend in noise levels which exceed the defined noise design goals in the Operational Noise Management Sub Plan, the Proponent shall implement further reasonable and feasible mitigation measures in consultation with affected landowners and/or occupiers. The Proponent shall submit a copy of its assessment report to the EPA.

Flooding and Hydrology

76. As part of the Construction EMP referred to in Condition 20, a detailed Flooding Sub Plan must be prepared prior to the commencement of construction works. The Sub Plan must be prepared in consultation with DLWC and relevant Councils. It must address, but not be limited to:

- (a) Means of protecting excavations and tunnel from flooding/stormwater during construction and the means of dealing with any flood water/stormwater that enters excavations and tunnel during construction. This must include identifying any proposed use of existing drainage infrastructure and the means of minimising any adverse impacts, including capacity limitations within the drainage system;
- (b) Means of minimising impacts on existing and proposed drainage systems;
- (c) Means of protecting construction sites from flooding;
- (d) Means of ensuring site works do not exacerbate flooding elsewhere;
- (e) Mitigation measures to ensure that the off site consequences of work sites being flooded are minimised; and,
- (f) Consistency with the NSW Government Flood Policy and Flood Plain Development Manual.

77. The Operational EMP referred to in Condition 22 must identify the means of minimising the entry of flood water/stormwater to the tunnel and the means of disposal of any such water entering the tunnel. This must include identifying any proposed use of existing drainage infrastructure and the means of minimising any adverse impacts, including capacity limitations within the drainage system. The methods must be developed in consultation with DLWC and relevant Councils.

Water Quality Erosion and Sediment Control

Soil and Water Quality Management Sub Plan

78. As part of the Construction EMP and Operational EMP referred to in Conditions 20 and 22, a detailed Soil and Water Quality Management Sub Plan shall be prepared in consultation with the EPA, and all relevant Councils. The Sub Plan shall be prepared in accordance with the Department of Housing's guideline *Managing Urban Stormwater - Soils and Construction*. The Sub Plan(s) shall be prepared prior to construction or operation as appropriate.

The Soil and Water Quality Management Sub Plan shall contain, but not be limited to the following measures or details, that are to be employed to:

- (a) minimise ingress of water into the tunnel (both groundwater and surface water);
- (b) minimise the amount of ingress water discharged to the stormwater system. Wherever possible, the Proponent should employ alternatives methods of disposal such as reuse/recycling, or discharge to the sewer;
- (c) management of the cumulative impacts of the development on the quality and quantity of surface and groundwater, including stormwater;
- (d) details of short and long term measures to be employed to minimise soil erosion and the discharge of sediment to land and/or waters;
- (e) identification of all potential sources of water pollution (including those resulting from maintenance activities) and a detailed description of the remedial action to be taken or management systems to be implemented to prevent discharge of these pollutants from all sources within the subject sites;
- (f) opportunities for recycling/re-use of stormwater;
- (g) detailed description of water quality monitoring to be undertaken during the pre-construction, construction and operation stages of the proposal including identification of locations where monitoring would be carried out;
- (h) contingency plans to be implemented in the event of major fuel spills and other chemicals; and
- (i) a programme for reporting on the effectiveness of the sediment and erosion control system against performance goals.

Erosion and Sediment Control Works

79. The Soil and Water Management Sub Plan shall incorporate detailed erosion and sedimentation controls and site rehabilitation requirements which shall be prepared in consultation with DLWC and in accordance with the Department of Housing's Managing Urban Stormwater – Soils and Construction Manual.

Groundwater

80. As part of the EMPs referred to in Conditions 20 and 22, a detailed Groundwater Management Sub Plan shall be prepared to meet the requirements of DLWC.

The Sub Plan shall:

- (a) provide details of groundwater control measures to be undertaken during both the construction and operation stages;
- (b) include but not be limited to:
 - (i) impacts on nearby structures from potential settlement;
 - (ii) groundwater inflow control;
 - (iii) handling, treatment and disposal of groundwater and contaminated groundwater;
 - (iv) monitoring; auditing; measures for dealing with exceedances; and response actions; and
- (c) aim to achieve reuse wherever practical, in preference to the stormwater system.

Approval from DLWC shall be obtained prior to the commencement of any dewatering work.

Acid Sulphate Soils Management

81. As part of the Construction EMP referred to in Condition 20, a detailed Acid Sulphate Soil Management Sub Plan must be prepared prior to the commencement of construction works. It shall be prepared in accordance with the *ASSMAC Acid Sulphate Soil Manual (1998)* or as revised. The Sub Plan shall be prepared in consultation with relevant Councils. The Sub Plan should assess the potential impacts of acid sulphate soils from:
- (a) the disturbance of sulphidic material or extractive material containing sulphidic material (in the fines);
 - (b) impacts from the alteration of watertable levels (water use, drainage works, change of the bed of rivers, dewatering as component of extraction operation);
 - (c) acid run-off from stockpiles or the acidification of sulphidic fines; and
 - (d) the sale or use of material containing sulphidic material.
82. The Sub Plan shall address how management strategies would be integrated into the construction procedures and how any impacts would be minimised and managed effectively, and include a contingency plan to deal with the unexpected disturbance of potential or actual acid sulphate soils. It should reference the water quality monitoring programme contained in Condition 78.

Urban Design and Landscaping

83. The Proponent shall prepare, as part of the Construction Environmental Management Plan, a detailed Urban Design and Landscape Sub-Plan in consultation with relevant Councils and the Community Working Group. Suitably qualified urban designers and landscape specialists shall be utilised to develop the Sub Plan. The Sub Plan shall detail hoardings, screens, landscaping and other measures to be taken to reduce the visual impact of the proposal during the construction stage.

Tree Management Sub Plan

84. The Proponent shall prepare a Tree Management Sub Plan, addressing but not limited to the following:
- (a) identify any significant trees which may be affected during construction and detail appropriate management measures;
 - (b) use of a suitably qualified Arborist to ensure that the condition of any trees affected is monitored throughout the construction period;
 - (c) proposed measures to protect trees, consistent with Council Tree Preservation Orders;
 - (d) replacement trees and restoration works to the satisfaction of Council;
 - (e) arrangements to be made with Council for bonds for trees; and
 - (f) replacement of any trees lost during construction, using specimens of a similar maturity where practicable unless otherwise agreed with the relevant Council(s).

Heritage

Indigenous Heritage

85. As part of the Construction EMP an Indigenous Heritage Management Sub Plan shall be prepared outlining procedures that are to be implemented if previously unidentified items/areas of potential indigenous archaeological significance are identified during construction works. This shall include the requirement to cease work immediately and contact NPWS and Metropolitan LALC to determine appropriate action.

Non-Indigenous Heritage

86. Prior to construction the proponent shall identify all local and state listed non-indigenous heritage items within the construction zone of influence which may be potentially affected by vibration impacts or any other impacts during construction. The provisions of Conditions 20 and 71 shall apply to all identified items.
87. As part of the Construction EMP referred to in Condition 20, the proponent shall prepare a Non-Indigenous Heritage Management Sub Plan in consultation with relevant Councils and the NSW Heritage Office. The Sub Plan shall include, but not be limited to, the following:
- (a) obtaining excavation permits (in accordance with section 139 of the Heritage Act, 1977) for all excavation works proposed to be undertaken at the following sites:
 - (i) Sydney Police Centre car park;
 - (ii) Roden Cutler House;
 - (iii) Wade Place; and
 - (iv) Castlereagh Street.
 - (b) details of licences/approvals to be obtained in relation to non-indigenous heritage issues including those required under the NSW Heritage Act, 1977;
 - (c) procedures for monitoring of areas of potential archaeological sensitivity during initial clearing and construction activities with the involvement of the relevant Councils and NSW Heritage Office; and
 - (d) procedures to be implemented if previously unidentified items/areas of potential non-indigenous archaeological significance are identified during construction works including the requirement to cease work immediately and contact the NSW Heritage Office to determine appropriate action.

Air Quality and Greenhouse Gas

Construction Stage

88. As part of the Construction EMP referred to in Condition 20, a specific Construction Stage Air Quality Sub Plan shall be prepared. The Sub Plan shall promote the reduction of greenhouse gases by adopting energy efficient work practices and provide details of all dust control measures to be implemented during the construction stage. The Sub Plan shall include but not be limited to, the following:
- (a) measures to reduce dust from stockpiles and cleared areas and other exposed surfaces;
 - (b) monitoring and management and control of methane and other gases in the Tunnel;
 - (c) developing and implementing procedures to minimise energy waste;
 - (d) conducting awareness programmes for all site personnel regarding energy conservation methods; and
 - (e) conducting regular energy audits during the project to identify and address energy wastage.
89. Where there is a risk of losing material, construction vehicles using public roads shall be maintained and covered to prevent any loss of load, whether in the form of dust, liquid, solids. Construction vehicles shall be maintained in such a manner, that they would not track mud, dirt or other material onto any street, which is opened and accessible to the public. In the event of any spillage, the Proponent is required to remove the spilt material within 24 hours.
90. No burning or incineration of materials shall be permitted on project sites.

Operation Stage

91. As part of the Operational EMP referred to in Condition 22, the Proponent shall address air emissions from the Tunnel vent, including the need for microbial control measures and micro climate monitoring. The EMP shall also address monitoring and management of methane and other gases.

Spoil Disposal and Waste Management

Spoil Management Sub Plan

92. As part of the Construction EMP referred to in Condition 20, the Proponent shall prepare a Spoil Management Sub Plan. This Sub Plan shall identify how spoil would be handled, stockpiled, reused and disposed. The Sub Plan shall be prepared in consultation with DLWC and relevant Councils before the commencement of construction at relevant sites. It must address the principles of the Waste Avoidance and Resources Recovery Act 2001. The Sub Plan should also address:
- (a) minimising run off from stockpiles;
 - (b) dust control at stockpile sites;
 - (c) truck movements, including timing, route and minimising impacts on local amenity and other traffic. It must be consistent with the Traffic Management Sub Plan referred to in Condition 46 and 47; and
 - (d) final destinations of spoil.
93. All clean and/or treated spoil shall be reused or recycled where possible and cost effective to do so. Wherever possible, the Proponent shall ensure that the use of spoil generated from construction activities is maximised in preference to any import of fill.

Waste Management and Re-Use Sub Plan

94. As part of the EMP(s) (Construction Stage) and (Operation Stage) as relevant, a detailed Waste Management and Reuse Sub Plan shall be prepared. The Sub Plan shall address the management of wastes during the construction and operation stages respectively. It shall be prepared prior to construction and be consistent with the Waste Avoidance and Resources Recovery Act 2001, and the EPA's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes, and shall identify requirements for:
- a) waste avoidance;
 - b) reduction;
 - c) reuse; and
 - d) recycling,
- and provide details of requirements for:
- e) handling;
 - f) stockpiling;
 - g) disposal of wastes: specifically contaminated soil or water, concrete, demolition material, cleared vegetation, oils, grease, lubricants, sanitary wastes, timber, glass, metal, etc.; and
 - h) identifying any site for final disposal of any material and any remedial works required at the disposal site before accepting the material.
95. Any waste material that is unable to be recycled shall be disposed at a landfill licensed by the EPA to receive that type of waste. The Sub Plan shall be framed using the waste minimisation hierarchy principles of avoid-reduce-reuse-recycle-dispose. This shall also include the demand for water.
96. As part of the Sub Plan, an Action Plan shall be prepared to promote the use of recycled materials, including construction and landscape materials. The Plan shall detail how the proposal gives consideration and support to the Government's *Waste Reduction and Purchasing Policy*. The Plan shall also include details on measures to implement energy conservation best practice.

Contaminated Land

97. The Proponent must conduct a site investigation to determine the nature and extent of contamination. An Investigation Report must be submitted to the Director-General, as part of the EMP referred to in Condition 20, detailing the results of the investigation and an assessment of the potential risk posed by contaminants to health and the environment. The Report must be prepared in accordance with EPA's "Guidelines for Consultants Reporting on Contaminated Sites", and "Contaminated Sites: Guidelines on Significant Risk of Harm from Contaminated Land and the Duty Report".
98. As part of the Investigation Report referred to in Condition 97. The Proponent must include a Contingency Plan for dealing with unexpected occurrences of contaminated material, during the course of work.
99. If the results of the site investigation indicate that remediation is necessary to reduce or remove risks posed by contaminants, then the Proponent must remediate the land in accordance with a Remedial Action Plan approved by the Director-General. The Plan must be prepared in consultation with relevant Councils and land-holders. If contaminated material is disposed of off-site, the Proponent must examine all feasible options and this must be in accordance with the Waste Avoidance and Resources Recovery Act 2001 and the EPA's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes.
100. If remediation is carried out, the Proponent must submit a Validation Report to the Director-General within 1 month of the completion of remediation works. The Report must confirm whether the pre-determined clean up objective has been attained and whether any further remediation works or restrictions on land use are required. The Director-General may require further remediation works if the pre-determined clean up objective has not been attained. The Director-General may also require an independent site audit of the remediation, at the Proponent's expense, if the Validation Report is inconclusive. A copy of the Report must be submitted to the EPA and relevant Councils at the same time the Report is forwarded to the Director-General.
101. All work associated with contaminated spoil, including the preparation of reports, must be carried out in accordance with EPA guidelines and guidelines prepared by the Australian and New Zealand Environment and Conservation Council (ANZECC) and the National Health and Medical Research Council (NHMRC).

Utilities and Services

102. The Proponent shall identify the services potentially affected by construction activities to determine requirements for diversion, protection and/or support. This shall be undertaken in consultation with the relevant service provider(s). Any alterations to utilities and services shall be carried out to the satisfaction of the relevant service provider(s), and unless otherwise agreed to, at no cost to the service/utility provider(s).
103. The Proponent shall ensure that existing cathodic protection systems are not adversely affected and that appropriate measures are put in place to minimise stray currents.
104. The Proponent shall develop a contingency plan, in consultation with the relevant service provider(s), to deal with accidental damage and repair of services.
105. The Proponent shall ensure that disruption to services resulting from the proposal are minimised and shall be responsible for advising local residents and businesses affected prior to any disruption of service.

106. The Proponent shall consult with relevant Councils, Sydney Water and other relevant service providers prior to detailed design of the cable regarding future infrastructure proposals. The Proponent shall consider any identified proposal in finalising the cable design.

Hazards and Risk

Dangerous Goods and Hazardous Materials

Construction Risk Management

107. The Proponent shall prepare and implement a Construction Safety Sub Plan to manage hazardous incidents and public safety during the construction of the electricity cable and associated infrastructure. The Plan shall include, but not necessarily be limited to:
- (a) physical measures to be implemented to minimise the potential for public harm at and in the vicinity of construction areas;
 - (b) a programme to ensure that safety measures implemented to minimise the potential for harm to the public remain in place and are adequately maintained while hazardous situations exist;
 - (c) procedures for the notification of residents in the vicinity of construction sites whose safety may be affected by construction activities;
 - (d) procedures to manage risk to construction workers;
 - (e) identification of pipelines, cables and other utilities that may be affected by construction of the electricity cable and associated infrastructure, either directly or indirectly, and methods to minimise those impacts;
 - (f) procedures to be followed in the event that contaminated material is discovered during any excavation works;
 - (g) measures to be implemented to ensure safe transport of construction materials, including transport routes, transport times, vehicle speeds and driver behavioural requirements;
 - (h) measures to be implemented to ensure the safe handling of hazardous materials and to minimise the potential for spills of those materials;
 - (i) a protocol to manage the on-site refuelling of vehicles during construction; and
 - (j) contingency measures to contain, minimise and rehabilitate a spill of hazardous materials, should it occur.

The Construction Safety Sub Plan shall be submitted for the approval of the Director-General prior to the commencement of any construction activity, or within such period otherwise agreed by the Director-General.

Operation Risk Management

108. The Proponent shall prepare and implement an Emergency Sub Plan to manage emergency events that may arise in relation to the electricity cable and associated infrastructure. The Plan shall include, but not necessarily be limited to:
- (a) identification of emergencies that may arise in relation to the electricity cable and associated infrastructure;
 - (b) procedures to be followed to address potential emergencies and minimise the impacts of emergencies on surrounding land uses;
 - (c) monitoring and communication systems installed to indicate an emergency;

- (d) details of fire safety measures where relevant. This may include the need for use of sprinkler systems and lighting. The measures shall be developed in consultation with the NSW Fire Brigade;
- (e) procedures for the notification of relevant emergency services, authorities and affected receptors of an emergency situation; and
- (f) a system to investigate and address the cause(s) of any emergency to prevent recurrence.

The Emergency Sub Plan shall be submitted for the approval of the Director-General prior to the commencement of operation of the electricity cable, or within such period otherwise agreed by the Director-General.

109. The Proponent shall prepare and implement a Security and Crime Management Strategy to prevent unauthorised public ingress or access to relevant components of the electricity cable and associated infrastructure, and to minimise the potential for crime in the vicinity of cable infrastructure (eg vandalism, loitering, illegal dumping etc). The Strategy shall be generally in accordance with the principles outlined in the joint Department and Police Service publication *Crime Prevention and the Assessment of Development Applications*, and be developed in consultation with the NSW Police Service and relevant councils. The Strategy shall include, but not necessarily be limited to:

- (a) details of security arrangements to prevent unauthorised access to all relevant components of the electricity cable and associated infrastructure, including physical exclusion measures, detection devices and management mechanisms;
- (b) procedures for addressing security issues, should they arise;
- (c) specific design features intended to discourage the incidence of crime at and in the immediate vicinity of relevant components of the electricity cable and associated infrastructure;
- (d) lighting considerations, including light intensity, direction and hours of operation at and in the immediate vicinity of relevant components of the electricity cable and associated infrastructure, with the aim of minimising areas that may encourage crime;
- (e) policies and procedures for the management and removal of graffiti, amelioration of vandalism, should it occur at or on any relevant component of the electricity cable and associated infrastructure; and,
- (f) policies and procedures for the management and removal of illegal or inappropriate bill-posting and illegally dumped materials, should it occur at or on any relevant component of the electricity cable and associated infrastructure.

The Security and Crime Management Strategy shall be submitted for the approval of the Director-General prior to the commencement of construction of the electricity cable, or within such period otherwise agreed by the Director-General.

This condition only applies to "relevant" components of the electricity cable and associated infrastructure. That is, this condition only applies to those components that may be subject to security or crime issues (not underground components or any areas that may be reasonably considered inaccessible).

Cumulative Impact Management

110. As part of the Construction EMP referred to in Condition 20, the Proponent shall identify all other significant developments occurring in the vicinity of the cable construction area. The Proponent shall identify environmental impacts to be monitored during construction, which have the potential for cumulative effects to occur. The Proponent shall define time periods within which the identified environmental impacts would be monitored and describe measures taken to reduce cumulative effects.

111. As part of the Construction EMP referred to in Condition 20, the Proponent shall review

environmental impacts identified in Condition 110 every six months during the construction of the proposal. Any new impacts identified during construction shall be addressed appropriately to reduce the cumulative effects. The proponent shall identify how this was achieved as part of the Compliance Report referred to in Condition 21.

112. The Proponent shall coordinate all works with TransGrid (relating to its Picnic Point to Haymarket 330KV cable proposal) in the vicinity of the Mary Ann Street Adit and the Haymarket Substation, and spoil movement generally, in an attempt to reduce cumulative impacts in the CBD.

Note:

Any modification to the proposal that would be inconsistent with the conditions of approval shall only be carried out with the prior written approval of the Minister, in accordance with the relevant provisions of the EP&A Act.

Attachment 1

Guidelines for the Establishment of the Community Liaison Group

The proponent shall consider the following when establishing a Community Liaison Group:

1. The Group shall comprise at least two (2) representatives of the Proponent (the Environmental Management Representative and the Independent Community Liaison Representative), at least one (1) representative of the relevant Councils, at least two (2) community representatives and one (1) business representative.
2. At its first meeting, the Group shall consider its interrelationship with any existing community liaison/ consultative groups of adjoining or interrelated developments.
3. Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chair.
4. Where determined necessary by the Chair, an independent note taker would be provided by the Chair at the expense of the Proponent.

The Proponent shall, at its own expense:

- (a) nominate two (2) representatives to attend all meetings of the Committee;
- (b) provide to the Group regular information on the progress of work and monitoring results;
- (c) promptly provide to the Group such other information as the Chair of the Group may reasonably request concerning the environmental performance of the development;
- (d) provide access for site inspections by the Group; and
- (e) provide meeting facilities for the Group, and take minutes of Group meetings. These minutes, once approved by the Group, shall be available for public inspection at EnergyAustralia's Community Liaison Centre at EnergyAustralia's head office within 14 days of the Group's approval;
- (f) post minutes of Group meetings on the project Internet web site as specified in Condition 12; and,
- (g) Where reasonably required engage consultants to interpret technical information provided under this approval and for licensing purposes, and tasks of a similar nature.