Appendix A

Director General's requirements and statutory correspondence

NSW GOVERNMENT
Department of Planning

Contact: Swati Sharma
Phone: (02) 9228 6221
Fax: (02) 9228 6355
Email: swati.sharma@planning.nsw.gov.au

Our ref: S07/01887

Mr Craig Moody
Executive Manager - Major Projects and Engineering
EnergyAustralia
GPO Box 4009
SYDNEY NSW 2001

Dear Mr Moody

Proposed Sydney CityGrid Project – Director-General's Requirements for the Environmental Assessment and Input from Agencies and Council (Application: 08_0075)

Director-General's requirements for the preparation of the Environmental Assessment for the above mentioned project were issued on Tuesday 10 June 2008.

For your information, please find attached copies of input provided by City of Sydney Council, Department of Environment and Climate Change, RailCorp and Heritage Council to the Department during the preparation of the Director-General's requirements for the Sydney CityGrid Project. The input provided by Council and agencies provide specific details of the matters summarised in the DGRs and therefore must be considered in the preparation of the Environmental Assessment.

If you have any queries regarding the above, please contact Ms Swati Sharma on the above contact details.

Yours sincerely

Neville Osborne

Neville Osborne 10/6/08
Manager, Water and Energy
Major Infrastructure Assessments

Your reference : S07/01887
Our reference : DOC08/18684
Contact : Debbie Cole, 9995 6816

Neville Osborne
Manager - Energy and Water
Department of Planning
GPO Box 39
Sydney NSW 2001

Dear Neville

Re: Sydney CityGrid Project – Request for Environmental Assessment Requirements

I refer to your request for the Department of Environment and Climate Change (DECC) Director General requirements regarding the Sydney CityGrid Project on 23 April 2008.

The DECC recommends the following key issues be addressed in the Environmental Assessment (EA) for the project.

Noise and vibration
The EA should include a comprehensive assessment of the predicted noise and vibration impacts during both the construction and operational phases of the project in accordance with relevant NSW Government and DECC policies and guidance current at the time of the assessment. The EA should also include an assessment of all feasible and reasonable noise and vibration mitigation measures.

The assessment of construction/operational noise and vibration should:

1. Identify the source, nature and scope of noise and vibration impacts both during the construction and operational phases.

2. Identify the project duration, normal construction hours and parts of the project likely to involve significant periods of works outside of normal construction hours, especially any evening and night-time work.

3. Assess, quantify and report on predicted night-time noise impacts using both LA10 (15 minute) and LA1 (1minute) noise descriptors.

4. Assess, quantify and report predicted vibration impacts against the acceptable values of human exposure to vibration set out in Tables 2.2 and 2.4 to the *Environmental Noise Management Assessing Vibration: technical guideline.*

PO Box 668, Parramatta NSW 2124
Level 7, 79 George Street, Parramatta NSW
Tel: (02) 9995 5000 Fax: (02) 9995 6900
ABN 30 841 387 271
www.environment.nsw.gov.au

5. Identify the location of all proposed work compounds likely to involve 'out of hours' construction work and construction support activities, including bulk material storage compounds and site access gates and assess, quantify and report on the predicted noise impacts on surrounding noise sensitive receivers, particularly in respect of:
   a. Material and equipment deliveries; and
   b. Waste and spoil removal or transfer.

6. Identify feasible and reasonable noise and vibration mitigation measures for construction and operation including: alternative equipment or construction methods; timing of construction activities; and consideration of respite periods/ curfew times for works involving high noise or vibration impacts.

7. Outline a complaints monitoring and handling system active during the construction phase of the project.

8. The EA should consider current and future land uses of the land in the vicinity of the project with respect to noise and amenity impact, particularly on sensitive receivers

Aboriginal Cultural Heritage
The EA should include a Preliminary Assessment in accordance with DECC's (2005) *Guidelines for Aboriginal Heritage Impact Assessment and Community Consultation* to identify any Aboriginal heritage issues.

Water Quality Management
The project must comply with Section 120 of the Protection of the Environment Operations (POEO) Act 1997 to ensure that there is no pollution of waters.

The EA should reference the relevant Water Quality Objectives. These objectives identify environmental values and human uses to be protected or achieved for those waterways. The ANZECC 2000 Guidelines for Fresh and Marine Water Quality and associated guidelines under the National Water Quality Management Strategy provide criteria and a framework to assess whether the objectives will be compromised by a discharge.

The EA should address:
- Erosion and sediment controls during construction and runoff from storage of spoil
- Any problems that may result from flooding within the tunnel including the need for alarms on pumping systems
- Managing contaminated water generated from any automated fire control system. Refer to DUAP's Best Practise Guidelines for Contaminated Water Retention and Treatment Systems (1994)
- Managing groundwater issues (for example potential iron oxides from seepage)

Waste management
The EA should:
1. Assess, quantify and report on waste and resource management options for the project in the context of the following hierarchy where waste disposal is the last resort option:
   (a) Avoidance of unnecessary resource consumption,
   (b) Resource recovery (including reuse, reprocessing, recycling and energy recovery),
   (c) Disposal.

2. Identify and report on proposed measures to assess, classify and manage waste and virgin excavated natural material (VENM).

3. Assess, quantify and report on how the project would satisfy the requirements of the NSW Waste Reduction and Purchasing Policy.

4. Assess and report on proposed measures to manage excavation spoil to ensure:
   (a) Contaminated spoil is treated and disposed of, using best practice;
   (b) Noise and dust emissions are minimised; and
   (c) Uncontaminated spoil is re-used rather than landfilled.

Contaminated Land
The EA should:

1. Include a preliminary site contamination investigation in accordance with the guidelines made or approved by EPA under s.105 of the *Contaminated Land Management Act 1997.* The site contamination investigation should include all areas where project associated construction works are to be undertaken.

2. Discuss the need for further work to fully assess site contamination and remediate any identified contamination of the site.

Air Quality Management
The EA should include an assessment of all potential air emissions, including dust. Mitigation and management measures should be outlined.

Chemical Storage Management
The EA should address the storage of all materials, fuels and chemicals including management of runoff, containment and disposal.

If you require any additional information, please contact Debbie Cole on 9995 6816.

Yours sincerely

Gillian Reffell
Unit Head Metropolitan Infrastructure
Department of Environment and Climate Change

City of Sydney

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14 May 2008

Manager Major Infrastructure Assessments
NSW Department of Planning
GPO BOX 39
SYDNEY
NSW 2001

Attention: Swati Sharma

Dear Mr Sharma,

Major Project 08.0075 - Sydne y City Grid Project Concept Application and Belmore Park Zone Substation Project Application.

Thankyou for referring the above mentioned development applications to the City for comment relating to the:

- Extension of the existing city south cable tunnel from Wade Place to Riley Street, Surry Hills.
- The proposed sub tunnel connection from the existing city south cable tunnel to the Belmore Park zone substation.
- New sub-transmission switching station at Riley Street, Surry Hills and associated tunnel services to allow access and control of the city cable tunnel.
- Potential refurbishment or replacement of the existing Dally Street zone substation.

The City raises no objection to the proposed works related to the Sydney City Grid Project Concept Application.

The City would like to provide the following comments related to the Belmore Park Zone Substation Project Application:

- The design review process outlined in Part 5.2.1 of the Concept Plan is not considered to satisfy the requirements of Part 5 Division 2 of the Sydney LEP 2005, which requires new development on development plan sites to have gone through a competitive process, generally in the form of a design competition. It is recommended that the applicant undertake either an open or invited design competition to satisfy the requirements of Part 5 Division 2 of the LEP.

  The design competition should be conducted as per the requirements outlined in Part 12.2–Design Competitions of the Central Sydney Development Plan 1996. In addition, the City recommends that a design competition be

undertaken for the City East and Dalley Street zone substations proposed under the City Grid Concept Application.

- The design of the Belmore Park zone substation should comply with the sun access plane particulars contained in schedule 2 of the Sydney LEP 2005; and

- The proposed midblock connection is located in a position that does not encourage active uses at ground floor level by virtue of the blank wall that runs the full length of the eastern and western boundaries of the site. It is recommended that the applicant give consideration to relocating the midblock connection to the atrium area of the proposed building and ensuring that active uses are provided through the midblock connection.

Should you require any additional information relating to the comments above please contact Kate MacDonald on 9265 9040 or via return e-mail to kmacDonald@cityofsydney.nsw.gov.au.

Yours Sincerely,

Kate MacDonald
Planner

RailCorp

Rail Corridor Management Group
Level 16, 55 Market Street
Sydney NSW 2000
Tel: (02) 9224 2349 Fax: (02) 9224 4805

12 May 2008

Neville Osborne
Manager – Energy and Water
Major Infrastructure Assessment
23-33 Bridge Street
SYDNEY NSW 2000

Dear Mr Osborne,

SYDNEY CITYGRID PROJECT: PROPOSED ENERGYAUSTRALIA SYDNEY CBD 132kV CABLE TUNNEL AND BELMORE PARK SUB-STATION.

With reference to your letter dated 23 April 2008 and the meeting arranged at EnergyAustralia's Head Office on 28 April 2008, it is advised that the proposed works will impact on both the existing rail corridor and planned future works.

It is understood that at this stage it is only requested that key issues be identified where it is apparent that there will be interaction between EnergyAustralia and RailCorp with potential impact on the rail corridor, infrastructure, operations and future proposals.

Insofar as the existing rail corridor and tunnels are concerned there will be impacts at the following locations:

- Wynyard – Station and Tunnels.
- City Circle at Royal Botanic Gardens – Tunnels near Conservatorium of Music
- City Circle at Eastern Distributor – Tunnels near Macquarie Street, both live and disused.
- Eastern Suburbs Railway – Tunnels near Art Gallery of NSW.
- Eastern Suburbs Railway – Tunnels near Belmore Park (which will also impact on the existing Metro Light Rail corridor in Hay Street.

In respect of the Belmore Park Substation proposal it is advised that RailCorp was involved in the review of a previous development proposal for this site on behalf of both RailCorp and Metro Light Rail. The information obtained from this previous investigation may still have relevance to the current proposal, depending on details as they are revealed.

For RailCorp the main issues at this stage for existing infrastructure are presumed to be as follows:

1. Grade separations between the proposed CityGrid tunnel and existing rail tunnels and below ground infrastructure.
2. Accurate survey information clearly defining horizontal and vertical relativity between existing rail infrastructure and easements and the proposed tunnel design criteria.
3. Service searches should be carried out to identify the presence of any rail services in the areas under consideration.
4. Dilapidation surveys may be required prior to, during and after any works.
5. Acoustic/vibration treatment may need to be assessed for any impact from rail operations on the proposed CityGrid tunnel.
6. Vibration monitoring of the rail tunnels may be required during the works should they come in close proximity to existing rail infrastructure.
7. An Electrolysis Report may be required for those areas of the proposed works within sixty (60) metres of the existing electrified rail network. This is due to stray current presence which may have potential to impact on electrically conductive materials.
8. Where the proposed works are to be located within twenty five (25) metres of existing rail infrastructure Geotechnical and Structural Reports will be required to be submitted to rail for review.
9. Depending on results of the above Reports it may be necessary for Track Possessions and Power Outages to be arranged, particularly if access to the rail tunnels is required.
10. Construction methodologies, risk assessments, Safe Work Method Statements and any monitoring regimes applicable to rail infrastructure will be required to be submitted to rail for review.
11. Should it be proposed for craneage to be set up over rail infrastructure then details will be required to be submitted to rail for review.
12. Environmental issues will need to be taken into account to prevent any contaminants entering into the rail corridor. This will include possible stormwater ingress.

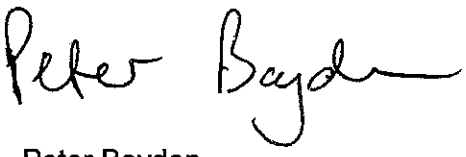
Please note that these issues are very generalised at this time and it is anticipated that as more information becomes available it will be possible to offer more detailed comments.

In respect of future rail corridors and proposals it is advisd that there may be numerous impacts from the various proposed routes. This would apply in the vertical as well as the horizontal aspect and will be dealt with either through RailCorp's Network Development or TIDC/MoT and it is understood that EnergyAustralia are already engaged in discussion with these stakeholders.

RailCorp takes this opportunity to express its appreciation for being included in the review process and looks forward to further dialogue in the matter. Please note that RailCorp's role is to protect its existing infrastructure and operations as well as future options for development at the same time as ensuring that any nearby developments are able to be carried out in a safe and expedient manner.

Should you wish to contact the writer at any time during normal working hours please call on telephone number (02) 9224 2352.

Yours faithfully,



Peter Boyden
Access Coordinator
Rail Corridor Management Group, RailCorp.

Heritage Council of New South Wales

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22 MAY 2008

Contact: Dr Iain Stuart
Telephone: (02) 9873 88569
Iain.stuart@planning.nsw.gov.au
File:
Our Ref: HRL49855
Your Ref: S07/01887

Mr Neville Osborne
Manager – Energy and Water
Major infrastructure Assessment
Department of Planning
GPO Box 39
SYDNEY 2001

Attention: Ms Swati Shama

Dear Mr Osborne

RE: MAJOR PROJECT – SYDNEY CITYGRID PROJECT REQUEST FOR DIRECTOR-GENERAL'S REQUIREMENTS FOR ENVIRONMENTAL ASSESSMENT

I refer to your letter dated 23rd April 2008 (received by this Office on 28th April 2008), requesting input into the Director Generals requirements for the application. The concept plan has been reviewed by Heritage Branch staff and Dr Stuart from the Branch attended the Planning focus meeting on the 28th April 2008.

As we understand the documentation it comprises a concept plan for the entire project and a project application for the Belmore Park substation (MP 08-0075). The concept plan covers, New and/or refurbished substations in the Sydney CBD and a tunnel network for 132kV cables, comprising:

1. Extension to the existing City South Cable Tunnel from Wade Place to Riley Street, Surry Hills (approximately 150m);

2. Stub tunnel connection from the existing City South Cable Tunnel (nominally 20m below Campbell Street) to Belmore Park Zone Substation;

3. Belmore Park Zone Substation, encompassing commercial/retail development (at the corner of Pitt, Hay and Campbell Streets);

4. City East Cable Tunnel (approximately 3.2km) from Riley Street, Surry Hills to Erskine Street, City North, inclusive of potential ventilation shaft and services at a point midway along the alignment;

5. City East Zone Substation, potentially encompassing commercial/retail

development (at a site yet to be determined);

6. New Sub-transmission Switching Station (STSS) at Riley Street, Surry Hills, and potentially a tunnel services control and access to the City East Cable Tunnel (in the alternative the control and access would be located at a midway point along the tunnel alignment); and

7. Potential refurbishment or replacement of the existing Dalley Street Zone Substation or building at a nearby site (including possible use of 183-185 Clarence Street as a switching station).

The Belmore Park Zone Substation Project Application is for a new substation located at the corner of Pitt, Hay and Campbell Streets and 132kV cables via a tunnel connection the existing City South Cable Tunnel (nominally 20m below Campbell Street) to Belmore Park Zone Substation.

The archaeological potential of the site at Belmore Park was identified in the city of Sydney Archaeological Management Plan and one (possibly two) Section 140 permits for archaeological work on the site have been issued by the Heritage Council of NSW. It is noted that Energy Australia has also commissioned an archaeological assessment of the site of the Bellmore Park Substation.

It is advised that the Director General's requirements for the application should address the following issues:

1. All known heritage items under or adjacent to the route of the tunnel and substation sites should be identified and their significance assessed. Statements of Heritage Impact will need to be prepared for all heritage items that are identified on LEPs and the State Heritage Inventory and are within the area affected by the proposal (this can be done in a single document).

   The Heritage Council maintains the State Heritage Inventory which lists some items protected under the Heritage Act, 1977 and other statutory instruments. This register can be accessed through the Heritage Branch home page on the internet (http:/www.heritage.nsw.gov.au).

   It should be noted that the legal standing of items listed on the State Heritage Register can also be provided by applying for a Section 167 Certificate through the Heritage Branch home page.

   In addition, lists maintained by the National Trust, any heritage listed under the Australian Government's *Environment Protection and Biodiversity Conservation Act* 1999 (e.g. National or Commonwealth Heritage list or the Register of National Estate) and the the City of Sydney should be consulted in order to identify any identified items of heritage significance in the area affected by the proposal. Please be aware, however, that these lists are constantly evolving and that items with potential heritage significance may not yet be listed.

2. Non-Aboriginal heritage items within the area affected by the proposal should be identified by field survey. This should include any buildings, works, relics (including relics underwater), gardens, landscapes, views, trees or places of non-Aboriginal

heritage significance. A statement of significance and an assessment of the impact of the proposal on the heritage significance of these items should be undertaken. This assessment should be undertaken in accordance with the guidelines in the NSW Heritage Manual. The field survey and assessment should be undertaken by a qualified practitioner/consultant with historic sites experience;

3. Any policies/measures to conserve their heritage significance or mitigate against potential impacts must be identified in the Statements of Heritage Impact. Any policies/measures to conserve their heritage significance should be identified baring in mind the different statutory requirements for various types of heritage items (especially the distinction between works and relics).

   In particular the Heritage Branch is keen to ensure that construction work, in particular vibration does not impact on heritage items and that vibration is kept within the guidelines for vibration impacts on heritage buildings.

4. The results of all field surveys and Statements of Heritage Impact shall be forwarded to the Heritage Council for review and comment; and

5. The proposal should have regard to any impacts on places, items or Aboriginal objects of significance to Aboriginal people. Where it is likely that the project will impact on Aboriginal heritage, adequate community consultation should take place regarding the assessment of significance, likely impacts and management/mitigation measures. For guidelines regarding the assessment of Aboriginal sites, please contact the National Parks and Wildlife Group of the Department of Environment and Climate Change on (02) 9585 6444 or see the information on their website at http://www.environment.nsw.gov.au/nswcultureheritage

The Heritage Branch of the Department of Planning would be happy to review any further documentation that may address any likely heritage impacts. If you have any further enquiries regarding this matter, please contact Dr Iain Stuart on (02) 9873 8569.

Yours faithfully

12/05/08

Vincent Sicari
Manager
Conservation Team
Heritage Office
Department of Planning

NSW GOVERNMENT
Department of Planning

Contact: Swati Sharma
Phone: (02) 9228 6221
Fax: (02) 9228 6355
Email: swati.sharma@planning.nsw.gov.au

Our ref: S07/01887

Mr Craig Moody
Executive Manager - Major Projects and Engineering
EnergyAustralia
GPO Box 4009
SYDNEY NSW 2001

Dear Mr Moody

Proposed Sydney CityGrid Project – Director-General's Environmental Assessment Requirements (Application: 08_0075)

I refer to EnergyAustralia's request for the Director-General's requirements for the preparation of an Environmental Assessment for the above project. I note that you are seeking Concept Approval for the whole proposal and Project Approval for the Belmore Park Substation.

The Director-General's Environmental Assessment Requirements are attached, pursuant to section 75F(2) of the *Environmental Planning and Assessment Act 1979*. It should be noted that the Director-General's requirements have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the Proponent seeking approval for the project.

The Environmental Assessment should be prepared using valid and accepted technical and scientific tools and methodologies, focussing on key environmental impacts and robust mitigation measures to address potential impacts from the project. You should also ensure that you consult with the Department prior to submission of a draft Environmental Assessment to determine:

- fees applicable to the application;
- consultation and public exhibition arrangements that will apply; and
- number and format (hard-copy and/or CD-ROM) of the Environmental Assessments that will be required.

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

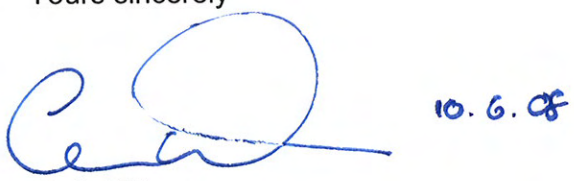
Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately.

Once you have lodged the Environmental Assessment, the Department will consult with the relevant authorities to determine the adequacy of the Environmental Assessment. Following this review period the Environmental Assessment will be made publicly available for a minimum period of 30 days.

You should keep the contact officer for this project, Swati Sharma ((02) 9228 6221 or swati.sharma@planning.nsw.gov.au), up to date with the progress of preparation of the

Environmental Assessment, and seek clarification of any issues that may be unclear or may arise during this process.

Yours sincerely



10.6.08

Chris Wilson
Executive Director
Major Project Assessments
As delegate for the Director-General

SYDNEY CITYGRID PROJECT–CITY OF SYDNEY LOCAL GOVERNMENT AREA

ENVIRONMENTAL ASSESSMENT REQUIREMENTS UNDER PART 3A OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Project	Concept Plan Application: New/upgraded/refurbished substations and the replacement of old high voltage cables within the Sydney CBD, including: • construction and operation of up to three new zone substations (including, as necessary, the demolition and/or refurbishment of existing zone substations, and the construction and use of commercial and/or retail developments on. Adjacent to, or integrated with, the new zone substations); • refurbishment and augmentation of existing zone substations; • replacement of, and upgrades to, EnergyAustralia's existing high voltage cable network; • construction and use of tunnels for the installation and operation of high voltage cables and associated cables and other infrastructure; • construction, operation and use of associated works, including ventilation shafts and access structures. Project Application: Stage 1 of the above works including: • Belmore Park Zone Substation, including commercial/retail development; and • stub tunnel connection from the existing City South Cable Tunnel to Belmore Park Zone Substation.
Site	Land within the City of Sydney local government area.
Proponent	EnergyAustralia
Date of Issue	10 June 2008
Date of Expiration	10 June 2010
General Requirements	The Environmental Assessment must be prepared to a high technical and scientific standard and must include: • an executive summary; • a detailed description of the Belmore Park Substation component of the proposal, including construction, operation, and any staging. Sufficient information must be provided on the stages requiring concept approval to enable a clear understanding of these components; • an assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below; • consideration of relevant guidelines including the Department's draft *Network Electricity Systems and Facilities Guidelines* (2002) and ANZECC 2000 Guidelines for Fresh and Marine Water Quality and associated guidelines under the National Water Quality Management Strategy; • justification for undertaking the project with consideration of the benefits and impacts of the proposal; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; and • certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading.
Key Assessment Requirements	The Environmental Assessment must include an assessment of the following key issues: • **Project Need and Justification** - the Environmental Assessment must provide: - a strategic assessment for the project, including justification of the need, scale, scope and location of the project in relation to predicted electricity demand, predicted transmission constraints, alternative strategies, and the strategic direction of the region and the State regarding the State electricity supply and demand and electricity generation technologies; - a strategic planning consideration of the project and an analysis of the suitability of the proposed tunnel route alignments with respect to potential land use conflicts with existing and future surrounding land uses including other proposals in the vicinity of the project area (e.g. proposed metro rail line(s)). This must include identification of potential impacts to existing and future road and rail infrastructure and early liaison with those agencies

governing such infrastructure.
- an assessment of the potential impacts of the project to influence changes to future land use character in proximity of the site.

- **Visual Amenity Impacts**– the Environmental Assessment must include an assessment of the visual impacts associated with the project, including the impact on local and regional views by the substations and related infrastructure. A design review process for the new electricity infrastructure associated with this project must form part of the Environmental Assessment. The outcome of this design review process for Belmore Park Substation must be provided in the Environmental Assessment. This design review process should be based on the principles of the design review competition of *Sydney Local Environmental Plan 2005*, and include consultation with Sydney City Council.

  Preliminary visual and design information for the other substations must also be included, such as proposed locations, characteristics of the surrounding environment, potential visual impacts and design limitations. The Environmental Assessment must detail the methodology and scope of the design review process for these elements of the project.
- **Traffic and Access Impacts** – the Environmental Assessment must identify transport routes to and from the construction sites and impacts on affected streets and intersections. This must include consideration of disruption to recreational/business activities and vehicle movements/bus services, including safety impact. Restrictions on access to properties should be identified. Proposed measures/arrangements for minimising impact on these activities must be discussed.
- **Noise and Vibration Impacts** - the Environmental Assessment must include an assessment of the noise and vibration impacts during both the construction and operation of the project, in accordance with relevant NSW Government and DECC policies and guidance current at the time of the assessment.
- **Heritage and Archaeological Impacts** - the Environmental Assessment must include an assessment of impacts on Aboriginal cultural heritage, in accordance with *Guidelines for Aboriginal Heritage Impact Assessment and Community Consultation* to identify any Aboriginal heritage issues. The Environmental Assessment must also include an assessment of the potential for the project to impact on known items of non-Aboriginal heritage significance. The likelihood of encountering archaeological material during construction and management of such must also be considered.
- **Spoil and Waste Management Impacts** - the Environmental Assessment must estimate the likely spoil generation and type (including identification of known or potential contamination issues), disposal/recycling sites and management of all types of waste material.
- **Hazards and Risk** - the Environmental Assessment must include a screening of potential hazards on site to determine the potential off site impacts, particularly at the substations, and any requirement for a Preliminary Hazards Analysis (PHA). The Environmental Assessment must also include an identification of any contaminated land affected by the project. Storage of all materials, fuels and chemicals including management of runoff, containment and disposal must be included. The Environmental Assessment must also include an assessment of the risk to human health from Electric and Magnetic Fields associated with the project, with reference to Australian Radiation Protection and Nuclear Safety Agency standards.
- **Property (including settlement)** – the Environmental Assessment must identify all existing land uses in the vicinity of the proposal sites and the potential impacts to these land uses during construction and operation of the project. Proposed control/mitigation measures must be included.
- **General Environmental Risk Analysis** - notwithstanding the above key assessment requirements, the Environmental Assessment must include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of the proposed mitigation measures. Where additional environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of this additional key environmental impact must be included in the Environmental Assessment.

Consultation Requirements	You must undertake an appropriate and justified level of consultation with the following parties during the preparation of the Environmental Assessment: • City of Sydney Council • Central Sydney Planning Committee; • Sydney Harbour Foreshore Authority; • NSW Department of Environment and Climate Change; • Department of Water and Energy; • NSW Roads and Traffic Authority; • Transport Infrastructure Development Corporation; • RailCorp; • Sydney Water Corporation; • NSW Heritage Office; • NSW Fire Brigade; • TransGrid; • Royal Botanic Gardens and Domain Trust; and • any other relevant agencies and service providers/utilities. In addition, appropriate consultation with the local community should be undertaken. The Environmental Assessment must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment.

EnergyAustralia™

NOTES OF MEETING

Sydney CityGrid Project

Planning Focus Meeting

DATE:	Monday 28 April 2008
TIME:	12.30PM – 3.00PM
LOCATION:	EnergyAustralia Head Office Building (Room 403) 570 George Street, Sydney

Attendees:

Department of Planning
- Neville Osborne
- Swati Sharma
- Anthony Pedroza (Metro Division)
- Dr Iain Stuart (Heritage Branch)

EnergyAustralia
- Craig Moody
- Wilma Penrose
- Phil Gates
- Amy Lehoczky
- Santo Ragusa
- Walter Stefani
- Hesham Saad
- Julie Walker
- Robert Moses

Ministry of Transport
- Robert Paterson

TIDC
- Raymond Ng
- Peter Bourke

RailCorp
- Wai-man Ng
- Peter Boyden
- John Bryan

Department of Water and Energy
- Peter Lansdown

City of Sydney
- Jeremy Swan

Department of Environment and Climate Change
- Debbie Cole
- Gillian Reffell

RTA
- Suppiah Thillai

PlanCom
- Julian Ardas

Artifex Management Group
- Tony Fullelove

Apologies:

RTA
- Peter Morris

Circulation:

Attendees and apologies listed above

Notes of Meeting:

- Introduction was given by Neville Osborne (Department of Planning) regarding the purpose of the meeting.

- Craig Moody (EnergyAustralia) gave an overview of the strategic context of electricity supply to the CBD and that EnergyAustralia has to fulfil new licensing requirements by 2014.

- Wilma Penrose (EnergyAustralia) gave an overview of the Sydney CityGrid Project components; generally comprising new substations and refurbishment of existing substations in the Sydney CBD, including a 132k cable tunnel network of approximately 3.2km running from Riley Street, Surry Hills around the eastern and northern sectors of the city to the corner of Erskine and Sussex Streets.

  Key Environmental Aspects considered are:
  - Design review
  - Electric and magnetic fields (EMF)
  - Traffic and access
  - Noise and vibration
  - Surface and groundwater management
  - Heritage and archaeology
  - Greenhouse gas and air quality
  - Property (including settlement)
  - Spoil management

Other Environmental Aspects include:

- Amenity
- Socio-economics
- Health, safety, risk and hazards
- Cumulative impacts
- Demand management

The tunnel network would interface with new and proposed rail and road tunnels, such as:

- Eastern Suburbs Rail Tunnel
- City Circle Rail
- Metro Pitt (proposed)
- Metro West (proposed)
- North West Metro Link (proposed)
- Cross City Tunnel
- Eastern Distributor

Preliminary vertical alignments indicate that sufficient separation can be achieved between these tunnels, however, further discussion will be required with RTA and CCM, RailCorp and TIDC.

- Approvals Process – the Minister for Planning has declared the project to be one that Part 3A of the *Environmental Planning and Assessment Act 1979* applies. The Minister is the determining authority.

- Project Timeframe – work commencing in early 2009 for Belmore Park Zone Substation development with other project components through to 2020 and beyond.

Questions and Answers – open forum

1. DECC raised the issue of vibration and the impact on heritage buildings, specifically terraces in Surry Hills. DECC further mentioned "offsets" to address settlement.

Response: A tunnel boring machine will be used to excavate the tunnel through rock and has less vibration impact than a traditional roadheader excavated tunnel. Furthermore, a detailed noise and vibration study would be undertaken as part of the environmental assessment. The design would also take into account existing above ground structures.

2. RTA mentioned the need for EnergyAustralia to set up a meeting to discuss the Cross City Motorway.

Response: EnergyAustralia has approached Peter Morris in order to arrange a meeting with CCM and the RTA. Similar issues to that discussed and agreed with the RTA/CCM in relation to the City West Cable Tunnel (CWCT) would have to be resolved in terms of an agreed alignment crossing the CCT tunnels.

3. RailCorp stated that there would be a need to consider the issue of electrolysis, in relation to the Eastern Suburbs Railway (ESR), which runs adjacent to Belmore Park Zone Substation development.

Response: The development would not encroach into the easement (buffer zone) for the ESR. However, EnergyAustralia would take into consideration the type of temporary rock anchors to be used in the construction to ensure that there would be no impact.

4. City of Sydney Council, mentioned that residents raise a lot of questions about the Riley Street/Albion Street site and that there is significant site water in the current excavation. The future intention of the Riley Street site was also questioned.

Response: Noted. Community concerns would be fleshed out as part of the consultation process.

In relation to the Riley Street site, the concept application seeks approval for the following:

- *construction of the City East Cable Tunnel (CEST) and the (150m) extension of the existing cable tunnel in the short term (2010 to 2014 approximately);*
- *operation/access point of the CECT in the longer term, potentially including a water treatment facility (WTP) if the existing WTP at Campbell Street Zone Substation cannot be used (2013 to 2015 approximately); and*
- *a sub-transmission switching station (2011 to 2013 approximately).*

The remaining part of the Riley Street site may be redeveloped for other use, however, this would be subject to a separate planning application and is not being proposed as part of the concept application. Future use is speculative at this stage but could include a new bulk supply point bringing additional power into the CBD.

5. RailCorp, mentioned the proposed Metro West rail line and the 'high' and 'low' options into Wynyard, which makes the Margaret Street area complicated.

Response: Agreed. EnergyAustralia has also taken into consideration these options following an initial meeting with RailCorp to ascertain proposed RLs. Construction technique would include a "concrete lining" of the tunnel (i.e. no rock bolts) providing support and the ability to locate the CECT in closer proximity to other structures.

6. RailCorp stated that there are a number of other services in the area of Belmore Park Zone Substation development including the light rail and the Telstra tunnel.

Response: EnergyAustralia is aware of these services and intends to speak with representatives from Metro Transport Sydney in relation to the Metro Light Rail and Telstra in relation to the tunnel which is in close proximity to the site on the Pitt Street. Further consultation with affected stakeholders would also take place.

7. DECC representative asked about water treatment for the CECT.

Response: The preference is for groundwater from the operational CECT to be treated at the existing Campbell Street Zone Substation Water Treatment Plant (WTP) – this plant currently treats water from the existing cable tunnel and will also treat the CWCT when operational. If there is insufficient capacity for the proposed CECT then a new WTP would be constructed at the Riley Street site (or elsewhere). The option to reuse water, as opposed to discharging after treatment into stormwater, would be explored in the detailed design stage. Water reuse would require detailed investigations regarding water quality and will only be known when borehole data and water chemistry are known.

8. Department of Planning (Heritage Branch) representative asked about the construction timetable for Belmore Park Zone Substation.

Response: Bulk excavation would commence in early 2009, the zone substation must be commissioned by 2013, at the latest.

9. MOT stated it (and TIDC) had the responsibility of design and delivery of the proposed North West Metro Link and would be seeking concept approval around October this year. MOT also stated that construction would be commencing in 2010 with completion in 2017 and that there would be a pedestrian concourse joining Wynyard and Barangaroo along the Margaret Street area.

Response: EnergyAustralia understood that the proposed alignments for the North West Metro Link would be fairly deep in order to cross Darling Harbour, however, further discussions with MOT and TIDC would be taking place to understand the potential constraints.

10. TIDC acknowledged that the tunnel alignment for the North West Metro Link, as shown in the presentation, was essentially correct.

11. MOT stated that it would need to have further discussions with EnergyAustralia in relation to the power supply for the proposed North West Metro Link.

Response: Generally electrical feed for rail infrastructure is supplied from outside of the CBD network. MOT/TIDC would have to discuss these issues with EnergyAustralia supply branches, however, this can be progressed through further dialogue with the Project team.
