# REQUEST FOR TENDER

## Tender number 1108

## For Energy and Water Efficiency Retrofit of the City's Buildings and Operations

**The Council of the City of Sydney**
Town Hall House
456 Kent Street
SYDNEY NSW 2000

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city of villages

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**VOLUME 1**
**SECTION 1**
**INTRODUCTION**

The Council of the City of Sydney ("Council") invites tenders for the carrying out of the design, supply and installation for energy and water efficiency retrofit of the City's buildings and operations, in accordance with this request for tender.

Tenderers must submit tenders in the manner required by this request for tender.

# 1 BACKGROUND

The City of Sydney covers approximately 26.15 square kilometres, has a population of approximately 170,000 and is a major commercial hub which contributes 25% of New South Wales GDP and 8% of Australia's GDP.

Sustainable Sydney 2030 is the City's vision to make Sydney green, global and connected by 2030 - reflecting our residents' aspiration for our local government area. Following the most comprehensive consultation on the future of our city, Sustainable Sydney 2030 outlines how the City can significantly reduce greenhouse gas emissions and take a holistic approach to planning Sydney's future.

The vision includes a target to achieve a 70% reduction in greenhouse gas emissions from 2006 levels by 2030. Around 80% per cent of the city's emissions are from the stationary energy sector, and this is where much of the cost-effective emissions reduction potential lies. Early action is crucial if the City is to realise this target as the City must forward plan investment in critical infrastructure.

The key to achieving this ambitious target is a co-ordinated effort to promote energy and water efficiency, peak electricity demand management and the development of a local energy and water generation, distribution and supply network, together with automated waste collection and treatment, or green infrastructure that will deliver electricity, heating and cooling or trigeneration, non potable/recycled water and automated waste collection network more cleanly, efficiently, and with lower emissions intensity. This approach will achieve:

- Lower greenhouse gas emissions.
- Reduced waste of energy.
- Reduced peak electricity demand.
- Improve energy security and 'climate proof' energy infrastructure, without compromising regulated service quality and security of supply requirements.
- Reduced waste of potable water.
- Utilisation of waste as a materials recovery and renewable gases and water resource.
- Setting in place a green infrastructure that can utilise natural gas today and renewable gases in the future.
- Lower future energy costs for households and businesses.

The City is leading the way with the development of a Green Infrastructure Plan and the implementation of a series of 'show by doing' projects for the City's own buildings and operations. This tender is for the building energy and water efficiency retrofit of the City's own buildings and operations to reduce energy and water consumption by 20% and greenhouse gas emissions by 23% from 2005/06 levels by 2012/13. Trigeneration is the subject of another tender and no cogeneration or trigeneration shall be included in this tender.

# 2 PROJECT REQUIREMENTS

General

The following section outlines the City's anticipated project requirements.

As part of the vision to facilitate a 70% reduction in greenhouse gas emissions by 2030 the City is seeking to implement building energy and water efficiency retrofit on its own buildings and operations as a 'show by doing' project based on an output performance specification, whereby the Contractor shall implement and guarantee their own proposals, technologies and measures submitted as part of their tender to reduce energy and water consumption and emissions on the City's buildings and operations from 2005/06 levels by 2012/13:

- energy consumption by 20%;
- water consumption by 20%; and
- greenhouse gas or $CO_2$ equivalent emissions by 23%

For the avoidance of doubt this request for tender is for a turnkey contract for the design, installation and commissioning of energy and water efficiency retrofit on the City's own buildings and operations. It is not a request for tender for design and/or project management only or a two stage tender process. Tenders must include the full cost of the design, installation and commissioning of energy and water efficiency retrofit on the City's own buildings and operations.

The City's major energy and/or water consuming buildings and operations include the following:

1. Town Hall House - 456 Kent Street, Sydney
2. Ian Thorpe/Ultimo Aquatic Centre - 460-492 Harris Street, Ultimo
3. Cook and Phillip Park Pool - 4 College Street, Sydney
4. Customs House - 31 Alfred Street, Sydney
5. Victoria Park Pool - City Road, Chippendale
6. Andrew Boy Charlton Pool - 1 Lady Macquarie's' Drive, Sydney
7. 307 Pitt Street, Sydney
8. Epsom Road Depot - 94 Epson Road, Zealand
9. Bay Street Depot - Bay Street, Ultimo
10. Woolworths Building - 540 George Street, Sydney
11. Ultimo Community Centre - 38 William Henry Street, Ultimo
12. Kings Cross Neighbourhood Service Centre & Library - 50 – 52 Darlinghurst Road
13. Goulburn Street Car Park - cnr Elizabeth Street, Sydney
14. Zetland Community Centre (former South Sydney Hospital) - 132-140 Joynton Avenue, Zetland.
15. Sydney Town Hall - 483 George Street, Sydney
16. Kings Cross Car Park - Elizabeth Bay Road, Kings Cross
17. King George V Recreation Centre - 15 Cumberland Street, The Rocks
18. Surry Hills Community Centre - 405 Crown Street, Surry Hills
19. Railway Square Interchange - Haymarket
20. Rex Centre - 58A Macleay Street, Kings Cross,
21. Bourke Street Depot - 75 Bourke Street (cnr Plunkett Street) , Woolloomooloo
22. Redfern Community Centre - 29-53 Hugo Street, Redfern
23. Paddington Town Hall - 247 Oxford Street, Sydney
24. Haymarket Library - 744 George Street, Sydney
25. Rosebery Depot - Dunning Ave, Rosebury
26. Glebe Library - 186 Glebe Point Road, Glebe
27. Pyrmont Community Centre - Corner of John and Mount Street, Pyrmont
28. Meals on Wheels Centre - Unit 7/8-10 Burrows Road, St Peters
29. 101-111 William Street - Woolloomooloo
30. Redfern Town Hall - 73 Pitt Street, Redfern
31. Waterloo Library - 770 Elizabeth Street, Waterloo

32. Nursery and Depot - 38 Barwon Park Road, St Peters
33. 55-66 Oxford Street - Darlinghurst
34. Kings Cross North Centre - 50 – 52 Darlinghurst Road
35. Sydney Park pavilion - Euston Road, St Peters
36. Juanita Nielsen Community Centre - 31 Nicholson Street, Woolloomooloo
37. Newtown Library - 8– 10 Brown Street, Newtown
38. Abraham Mott Hall - 17 Argyle Place, Millers Point
39. Corporation Building - 447 Pitt Street, Haymarket
40. Recycling Depot Amenities - 25-29 Burrows Road, St Peters
41. State Emergency Services facility - 107-125 Railway Parade, Erskineville.
42. Alexander Child Care Centre - 41 Henderson Road, Alexandria
43. St Helens Community Centre - 186 Glebe Point Road, Glebe
44. Ron Williams Activity Centre - 19 Greenknowe Avenue, Potts Point
45. 82-106 Oxford Street - Darlinghurst
46. and potentially other sites

In addition, the City has recently acquired 343 George Street, Sydney, NSW 2000 (10,584m$^2$ net lettable floor area) and the old Tote building, 100 Zetland Avenue, Zetland, NSW 2017. Reductions in energy and water consumption and greenhouse gas emissions in these buildings will also contribute towards to total reductions in energy and water consumption and greenhouse gas emissions even though the City did not own these buildings in 2005/06 and does not currently have any data on these sites.

Energy and water efficiency retrofits in the above buildings and operations should provide sufficient scope to deliver the required reduction in energy and water consumption and greenhouse gas emissions but historical energy and water consumption details for all of the City's buildings and operations have been included in this request for tender to provide maximum scope and flexibility to tenderers to deliver the output performance specification criteria.

Prince Alfred Park

Prince Alfred Park Pool is being replaced by a new pool construction during the course of this project and so building energy and water efficiency retrofit of Prince Alfred Park Pool buildings are excluded from this tender.

Financial and Environmental Payback Analysis

Tenderers must provide the financial and environmental payback analysis for the design, installation and commissioning of the energy and water efficiency retrofit of City buildings and operations. The reduction in energy and water consumption and greenhouse gas emissions is the primary purpose of this request for tender but the tender will be awarded to the best economic tender that delivers the output performance specification criteria.

Output Performance Specification Criteria

Both the tenders and subsequent contract will be measured against the key output performance specification criteria which shall be guaranteed by the Contractor as detailed in this specification. See Clause – Output Performance Specification Criteria.

# VOLUME 1
# SECTION 2
# KEY CONDITIONS OF TENDER

| | |
|---|---|
| **Name of Tender** | **Energy and Water Efficiency Retrofit of the City's Buildings and Operations** |
| **Tender Number** | **1108** |
| **Closing Date** | **Tuesday 31st May 2011** |
| **Closing Time** | **11:00am** |
| **Contact Person** | **All enquiries** relating to this tender should be directed **by e-mail** to the Council's Tendering Officer as follows:<br><br>Paul Brown<br>Tel: 02 9265 9364<br>Fax: 02 9265 9697<br>Email: pbrown@cityofsydney.nsw.gov.au |
| **Lodging a Tender** | Tenders must be lodged with Council by the closing date and time and in accordance with the standard conditions of tender at the following address or fax (refer to volume 1, section 3, condition 5):<br><br>Tender Box<br>Town Hall House<br>Level 2<br>456 Kent Street<br>SYDNEY NSW 2000<br>Fax: 02 9265 9697<br><br>The Tender box is accessible between the hours of 8am and 6pm, Monday to Friday. |
| **Number of Copies** | Submit, as hard copies, **one original and three copies** of the tender and attachments, signed as required. The front page of each copy (including all supporting information) must be endorsed by the tenderer as a true copy. |
| **Tender Documents** | The documents that comprise the request for tender include:<br><br>1. Tender Conditions & Forms<br>2. Specifications<br>3. Drawings<br>4. General Conditions of Contract<br>5. Appendices |
| **General Conditions of Contract** | The general conditions of contract for this tender will consist of<br><br>**AS4902 – Design and Construct** |

# VOLUME 1
# SECTION 3
# STANDARD CONDITIONS OF TENDER

## 1. REQUEST FOR TENDER

This request for tender consists of the documents identified in the key conditions of tender. Where there is any doubt about the meaning of this request for tender, the rules governing the interpretation of the Contract will apply to resolve the ambiguity.

All information submitted by a tenderer as part of an expression of interest (if applicable) is deemed to form part of the tender as if reproduced and submitted in full as part of the tender.

The Council may from time to time issue addenda to amend, alter or clarify the form and contents of the request for tender. Council may include in addenda any queries received regarding the tender. The addenda will be issued before the closing date and upon issue, will form part of the request for tender. Tenderers must acknowledge receipt of the addenda when submitting the tender.

To the extent there is any inconsistency between the request for tender and addenda, the addenda will prevail. Where more than one addendum is issued, the latest addenda will prevail.

The key and standard conditions in this request for tender, and the process of assessing tenders, is not intended to create legal relations, contractual or otherwise. In accordance with standard condition 11, a contractual relationship only comes into effect when a written contract is executed between the Council and the preferred tenderer.

## 2. TENDERING PROCEDURE

### 2.1 Tenderers' Briefing

Council may offer briefings to tenderers from time to time. At the briefing Council's representative will discuss, answer or clarify any issues raised by a tenderer about any requirements in the request for tender. Council is not obliged to answer any questions before the briefing.

### 2.2 Information and Enquiries

Where a tenderer has any doubt about the meaning of any aspect of the request for tender, the tenderer must make enquiries about and clarify matters with Council's Tendering Officer. All enquiries about the request for tender must be referred in writing to Council's Tendering Officer.

**All communications related to this RFT should be addressed to the Council's Tendering Officer (via the contact details specified in the key conditions) and not to other Council officers or other persons. The attention of tenderers is drawn to condition 2.6.**

### 2.3 Site Visits

Tenderers may inspect the sites in accordance with the requirements of clause 2.5 of the specification through prior arrangement with Council's Tendering Officer. Tenderers must take their own precautions upon visiting the site.

### 2.4 Discrepancies, Errors and Omissions

Tenderers must carefully and thoroughly consider and check the request for tender and must notify Council's Tendering Officer in writing of any errors, ambiguities, discrepancies, inconsistencies or omissions in the request for tender. Council will not be liable for any such error, ambiguity, discrepancy, inconsistency or omission.

### 2.5 Tenderer to Rely on Own Enquiries

All information in the request for tender and in the briefing (if any) is provided for the assistance of tenderers only. Tenderers acknowledge in receiving this request for tender and in submitting any tender that they have relied entirely on their own knowledge and enquiries and they do not rely on any warranties or representations made or purportedly made to them by or on behalf of Council.

Council will not be liable for any representations or warranties made or purportedly made by Council's representative, Council's agents or any other person or company on Council's behalf, whether in the request for tender, the briefing (if any) or otherwise.

### 2.6 Tenderer Not to Solicit Council Personnel

Subject to condition 2.2, tenderers (or any representative of a tenderer) must not at any time before Council makes a final decision to accept a tender, contact or interview or attempt to interview or to discuss or to attempt to discuss with Council members, employees, authorised representatives other than Council's Tendering Officer in accordance with the request for tender, any matter about the tender or any other tender submitted in response to the request for tender. Council reserves the right to reject any tender submitted by a tenderer which contravenes this condition.

For clarity, a representative of a tenderer, for the purpose of this condition, includes a person or other legal entity who acts at the request of a tenderer or its agent. Also, this condition does not prevent ordinary business or other contact arising from or pertaining to Council functions (so long as that contact is not used to interview or attempt to interview or to discuss or to attempt discussion on any matter relating the tender).

## 3. COMPLETION OF TENDER

Unless indicated otherwise in the request for tender, a tenderer must **complete all parts** of the tender forms and submit an offer to carry out the work under the Contract in accordance with the request for tender. Council may reject any tender which does not provide all the required information.

Tenderers must submit a tender by completing and signing the tender forms in the manner as follows:

(a) If the tenderer is a corporation, in accordance with Section 127 of the Corporations Act 2001.

(b) If the tenderer is an individual, by the person tendering and the signature must be witnessed.

(c) If the tenderer is an unincorporated joint venture or partnership (including a business or trade name), each member of the joint venture or partnership must execute the tender in the manner set out in conditions 3(a) and (b).

## 4. CONFORMING AND ALTERNATIVE TENDERS

All tenderers must complete the statement of conformance as part of the tender.

A tenderer may also submit an alternative non-conforming tender. Any alternative non-conforming tender must satisfy the objectives of Council in issuing the request for tender, the requirements of the specifications and Contract.

Failure to comply with any condition of tender may render the tender non-conforming.

## 5. LODGEMENT OF TENDER

Tenders must be placed in the tender box or lodged by facsimile by the closing time on the closing date in accordance with the key conditions of tender.

Tenders lodged by facsimile will only be accepted in accordance with the *Local Government (General) Regulation* and where:

(a) the tender is received **in full** by Councils' Procurement Section on fax number (02) 9265 9697 before the closing time on the closing date ; and

(b) the original of the tender is received by Council within three (3) business days.

Tenders sent by post and received by Council after the closing date will be deemed to have been received before the closing date only if:

(a) the envelope bears a postal authority post mark clearly indicating that the time and date of posting were before the closing time on the closing date; and

(b) the tender would have been able to have been received by Council by the closing time on the closing date in the usual course of business.

Any other tenders received by Council after the closing date will not, unless the *Local Government (General) Regulation* provides otherwise, be considered by Council.

All tenders lodged will become the property of Council and on no account will they be returned to the tenderer.

## 6. EXTENSION OF TIME

Council may, at its absolute discretion, extend the closing date for the submission of tenders. Tenderers may also request Council to extend the closing date for the submission of tenders by written application to Council's Tendering Officer. Any such request must be received by Council's Tendering Officer at least three (3) business days before the closing date, and must provide sufficient reasons to support the request.

## 7. TENDER VALIDITY PERIOD

Any tender will be an irrevocable offer by the tenderer to carry out the work under the Contract subject to the conditions set out in the request for tender. The offer will remain open for acceptance by Council for a period of 120 calendar days from the closing date.

## 8. COUNCIL'S RIGHTS

Without limiting its rights at law or otherwise, Council reserves the right in its absolute discretion at any time to do one or any combination of the following:

(a) evaluate tenders as Council sees appropriate in the context of its requirement for the works or services;

(b) cease to proceed with the process outlined in this request for tender or any subsequent process;

(c) accept all or part of a tender;

(d) reject any tender; or

(e) accept a non-conforming tender.

Council is not bound to accept the lowest or any tender.

Where a tender is accepted no binding obligations arise until the terms of all documentation have been approved by Council and the documents executed on behalf of Council.

## 9. ASSESSMENT CRITERIA

Tenders will be examined and evaluated according to the following criteria:

(a) The design, construction and commissioning lump sum price and schedule of prices;

(b) The reduction in energy consumption

(c) The reduction in water consumption

(d) The reduction in greenhouse gas emissions

(e) The output performance specification requirements:

(i) Design, installation and commissioning

(ii) Financial and environmental payback analysis

(iii) Output performance specification criteria

(iv) Energy Performance Contract Guarantees

(f) Demonstrated financial and environmental payback analysis and methodology to implement the project; and

(g) Demonstrated capacity to fulfil the OHS & R and Environmental requirements of the Project.

The above criteria are not in order of priority and nor will they be given equal weight in evaluation.

## 10. ADDITIONAL INFORMATION

Without in any way limiting the *Local Government (General) Regulation*, Council may require further information from tenderers for the purposes of clarification or explanation of their tender. This includes holding interviews with some or all tenderers, including any personnel nominated by the tenderer in the tender or expression of interest.

## 11. ACCEPTANCE OF TENDER & CONTRACT

If the Council accepts a tender it will issue a letter of acceptance to the successful tenderer. This letter of acceptance does not create a contract with the tenderer. The Council and preferred tenderer are legally bound only when a written Contract is executed by the parties. Lodgement of a tender will itself be an acknowledgement and representation by the tenderer that it agrees to comply with the Contract in its entirety.

## 12. CONFIDENTIALITY

Information provided in this request for tender or imparted to any tenderer as part of the tendering process must only be used for the purpose of preparing and submitting a tender response. Receipt of this document implies acceptance of this condition.

Information supplied by a tenderer will not be treated as commercially sensitive or confidential unless specifically requested by the tenderer. Information received by Council may be subject to disclosure to the public under the Freedom of Information Act unless it has been provided in confidence, relates to commercially sensitive information or falls within an exemption from disclosure under that Act.

## 13. BUSINESS WITH BURMA

The City has a specific requirement that Council will not, in certain circumstances, purchase goods or services provided by those who, Council is aware, conduct business in, or with, Burma, or who are willing to do so, until democracy has been restored and human rights violations have ceased.

If a bidder is aware that any goods or services provided as part of their bid are subject to the abovementioned clause, these goods or services should be highlighted within their bid and provide the reasons for their inclusion.

## 14. CONFLICT OF INTEREST

In this clause "conflict of interest" means an actual or potential pecuniary or non pecuniary conflict of interest (see the Council's Code of Conduct at http://www.cityofsydney.nsw.gov.au/Council/FormsPoliciesPublication/Policies.asp under Governance for further explanation of these terms). Tenderers must disclose any conflict of interest in undertaking the requirements of the specifications and contract. Where a tenderer has a conflict of interest, the tenderer must provide Council in writing with detailed information about the nature and scope of the conflict of interest and include details of any arrangements proposed to resolve or manage the conflict of interest should the tenderer be awarded the contract. Based on the information provided by the tenderer, Council will make the final decision regarding the tenderers conflict of interest. If a conflict of interest is not disclosed by a tenderer and Council then becomes aware of the conflict, tenderers may be excluded from this Tender and/or any future process by which Council is seeking the provision of goods or services.

Additional information relating to the City's requirements of Bidders regarding how to tender, frequently asked questions and ethical business conduct can be found on the website at http://www.cityofsydney.nsw.gov.au/Business/TendersEOIQuotes/default.asp

# VOLUME 1
# SECTION 4
# TENDER FORMS

The following tender forms **must be completed** as part of this request for tender:

| | |
|---|---|
| Part 1 | Execution by Tenderer |
| Part 2 | Schedule of Prices |
| Part 3 | Statutory Declaration |
| Part 4 | Statement of Conformance |
| Part 5 | Acknowledgement of Addenda & Notices |
| Part 6 | Insurance and Disability Details |
| Part 7 | Company Profile |
| Part 8 | References |
| Part 9 | Previous Work Experience |
| Part 10 | Current Commitments |
| Part 11 | Specified Personnel |
| Part 12 | Proposed Sub-contractors & Suppliers |
| Part 13 | Environmental Management |
| Part 14 | Proposed Pedestrian & Traffic Management Plan |
| Part 15 | Proposed Program |
| Part 16 | Proposed Methodology |
| Part 17 | Proposed Schedule of Site Amenities |
| Part 18 | Proposed Schedule of Plant & Equipment |
| Part 19 | Details of Materials |
| Part 20 | Warranties |
| Part 21 | Occupational Health & Safety |
| Part 22 | Financial and Environmental Payback Analysis |
| Part 23 | Output Performance Specification Criteria |

## PART 1
## EXECUTION BY TENDERER

I/We having read, understood and fully informed myself/ourselves of the contents, requirements and obligations of the request for tender, submit this tender for the performance by myself/ourselves of the ***Energy and Water Efficiency Retrofit of the City's Buildings and Operations*** for the Council of the City of Sydney.

I/We hereby offer to design, supply and install the goods and/or services described in the tender at the prices offered being **$ …… excluding GST (*insert lump sum price*)** and upon and subject to the key and standard conditions of tender and general conditions of contract set out in the request for tender. This offer remains open for acceptance for 120 calendar days from the tender closing date.

| | |
|---|---|
| *Name of Tenderer* | |
| *Subsidiary Company (if applicable)* | |
| *Address of Tenderer* | |
| *Postal Address* | |
| *Refer enquiries to: (name, telephone number and email address)* | |
| *Phone Number* | *Fax Number* |
| *Legal Entity* | *ABN* |
| *Signature and Date* | *Official Position Held* |
| *Signature of Witness* | *Address of Witness* |

## PART 2
## SCHEDULE OF TECHNICAL DATA AND PRICES

Insert the technical data and tender prices allowed for each of the following items. If the Tenderer has no energy or water efficiency proposals for a particular building or operation the Tenderer must enter 'Nil'. If the Tenderer has energy or water efficiency proposals for buildings not specifically itemised the Tenderer must enter these buildings after Item No. 45 as Item No, 46, 47 and so on.

**DESIGN AND INSTALLATION FOR ENERGY AND WATER EFFICIENCY RETROFIT OF THE CITY'S BUILDINGS AND OPERATIONS**

| ITEM NO. | DESCRIPTION | REDUCTION IN ELECTRICITY CONSUMPTION PER ANNUM (KWh pa) | REDUCTION IN GAS CONSUMPTION PER ANNUM (KWh pa) | REDUCTION IN WATER CONSUMPTION PER ANNUM (KLitres pa) | REDUCTION IN $CO_2$ EMISSIONS PER ANNUM (Tonnes pa) | TENDER PRICE $ Ex GST |
|---|---|---|---|---|---|---|
| 1 | Town Hall House | | | | | |
| 2 | Ian Thorpe/Ultimo Aquatic Centre | | | | | |
| 3 | Cook and Phillip Park Pool | | | | | |
| 4 | Customs House | | | | | |
| 5 | Victoria Park Pool | | | | | |
| 6 | Andrew Boy Charlton Pool | | | | | |
| 7 | 307 Pitt Street | | | | | |
| 8 | Epsom Road Depot | | | | | |
| 9 | Bay Street Depot | | | | | |
| 10 | Woolworths Building, 540 George Street | | | | | |
| 11 | Ultimo Community Centre, 38 William Henry Street | | | | | |
| 12 | Kings Cross Neighbourhood Service Centre & Library | | | | | |
| 13 | Goulburn Street Car Park | | | | | |
| 14 | Zetland Community Centre (former South Sydney Hospital Site) | | | | | |
| 15 | Sydney Town Hall | | | | | |
| 16 | Kings Cross Car Park | | | | | |
| 17 | King George V Recreation Centre | | | | | |
| | Totals (Carried Forward) | | | | | |

| DESIGN AND INSTALLATION FOR ENERGY AND WATER EFFICIENCY RETROFIT OF THE CITY'S BUILDINGS AND OPERATIONS (CONTD) | | | | | | |
|---|---|---|---|---|---|---|
| **ITEM NO.** | **DESCRIPTION** | **REDUCTION IN ELECTRICITY CONSUMPTION PER ANNUM (KWh pa)** | **REDUCTION IN GAS CONSUMPTION PER ANNUM (KWh pa)** | **REDUCTION IN WATER CONSUMPTION PER ANNUM (KLitres pa)** | **REDUCTION IN $CO_2$ EMISSIONS PER ANNUM (Tonnes pa)** | **TENDER PRICE $ Ex GST** |
| | Totals (Brought Forward) | | | | | |
| 18 | Surry Hills Community Centre | | | | | |
| 19 | Railway Square Interchange | | | | | |
| 20 | Rex Centre, Kings Cross | | | | | |
| 21 | Bourke Street Depot, Plunkett Street | | | | | |
| 22 | Redfern Community Centre | | | | | |
| 23 | Paddington Town Hall | | | | | |
| 24 | Haymarket Library | | | | | |
| 25 | Rosebery Depot | | | | | |
| 26 | Glebe Library | | | | | |
| 27 | Pyrmont Community Centre | | | | | |
| 28 | Meals on Wheels Centre | | | | | |
| 29 | 101-111 William Street, Woolloomooloo | | | | | |
| 30 | Redfern Town Hall | | | | | |
| 31 | Waterloo Library | | | | | |
| 32 | Nursery & Depot, Sydney Park | | | | | |
| 33 | 55-66 Oxford Street, Darlinghurst | | | | | |
| 34 | Kings Cross North Centre | | | | | |
| 35 | Sydney Park Pavilion | | | | | |
| | Totals (Carried Forward) | | | | | |

| DESIGN AND INSTALLATION FOR ENERGY AND WATER EFFICIENCY RETROFIT OF THE CITY'S BUILDINGS AND OPERATIONS (CONTD) | | | | | | |
|---|---|---|---|---|---|---|
| **ITEM NO.** | **DESCRIPTION** | **REDUCTION IN ELECTRICITY CONSUMPTION PER ANNUM (KWh pa)** | **REDUCTION IN GAS CONSUMPTION PER ANNUM (KWh pa)** | **REDUCTION IN WATER CONSUMPTION PER ANNUM (KLitres pa)** | **REDUCTION IN $CO_2$ EMISSIONS PER ANNUM (Tonnes pa)** | **TENDER PRICE $ Ex GST** |
| | Totals (Brought Forward) | | | | | |
| 36 | Juanita Nielsen Community Centre | | | | | |
| 37 | Newtown Library | | | | | |
| 38 | Abraham Mott Hall | | | | | |
| 39 | Corporation Building | | | | | |
| 40 | Recycling Depot Amenities | | | | | |
| 41 | State Emergency Services Facility | | | | | |
| 42 | Alexander Child Care Centre | | | | | |
| 43 | St Helens Community Centre | | | | | |
| 44 | Ron Williams Activity Centre | | | | | |
| 45 | 82-106 Oxford Street | | | | | |
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| | Totals for Technical Data | | | | | - |
| | **TOTAL TENDER PRICE** (Carried to Form of Tender) $ | - | - | - | - | |

## PART 3
## STATUTORY DECLARATION

..... of ……..
do solemnly and sincerely declare, in respect of the Contract for ***Energy and Water Efficiency Retrofit of the City's Buildings and Operations*** that:

1. I hold the position of …… and am duly authorised by
..... ("the Tenderer") to make this declaration on its behalf and do so to the best of my knowledge, information and belief as to the accuracy of the material contained herein and after due enquires in relation to such material.

2. (a) Neither the Tenderer nor any of its servants or agents has entered into any contract, agreement or understanding to pay any money to any trade association in respect of the Contract; or

   (b) The Tenderer has entered into a contract, arrangement or understanding to pay ..... the sum of $..... in the event of the Tenderer being awarded the Contract referred to above.

   ***(Delete whichever alternative is not relevant)***

3. Neither the Tenderer nor any of its servants or agents had any knowledge of the price of any other tenderer prior to submitting its Tender nor did the Tenderer disclose to any rival Tenderer the Tenderer's tendered price prior to closing of Tenders.

4. Neither the Tenderer nor any of its servants or agents has entered into a contract, arrangement or understanding having the result that on being awarded it would pay to any unsuccessful Tenderer any moneys in respect of or in relation to the Tender or any contact resulting there from.

5. The Tenderer is not aware of any fact, matter or thing which would materially affect the decision of Council in accepting the Tender, except as disclosed in the Tender.

6. The contents of the Tender are true and correct.

7. At the time of submitting its Tender, the Tenderer has made reasonable enquiries and:

   (a) is not aware of any undisclosed actual or potential conflict of interest that exists or may arise in the performance of the Contract should the tenderer be successful as a result of this RFT process;

   **OR [***strike out whichever is inapplicable***]**

   (b) discloses the following actual or potential conflict of interest that exists or may arise in the performance of the Contract should the tenderer be successful as a result of this RFT process:

| Description of Conflict |
| --- |
| |

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act, 1900.

Subscribed and Declared at )
This day of 20xx )
before me: )

Signature of Declarant

Signature of Justice of the Peace / Solicitor

## PART 4
## STATEMENT OF CONFORMANCE

[***Delete whichever is not applicable:***]

- The tender does conform with the request for tender; or

- The tender does not conform with the request for tender. The areas in which the tender does not conform and the reasons for this non-conformance are as follows:

## PART 5
## ACKNOWLEDGEMENT OF ADDENDA & NOTICES

I / We, [***insert full name of Tenderer***], acknowledge receipt of the following:

[*Tenderers must fully describe all documents including addenda, and any notices, which are issued by Council*]

## PART 6
## INSURANCE AND DISABILITY DETAILS

1. Provide details of insurance currently held by you and any proposed sub-contractor which would be extended to provide cover for work under the Contract.

| Insurance Type | Policy No. | Extent of Cover | | Expiry Date | Name of Insurer |
|---|---|---|---|---|---|
| | | Per Incident $A | Aggregate | | |
| Workers Compensation/ Accident Insurance | | | | | |
| Public Liability | | | | | |
| Plant and Equipment | | | | | |
| Motor Vehicles | | | | | |
| Professional Indemnity | | | | | |
| Other | | | | | |

Copies of all insurance certificates are required to be submitted as part of the tender response.

2. Provide details of current registration with long service and superannuation bodies.

3. Provide details of any disability action plan or disability specific policies and procedures (excluding standard EEO documentation).

## PART 7
## COMPANY PROFILE

Tenderers must provide the following information:

- Details of the size of your organisation
- Details of your corporate structure
- Brief history of your organisation
- Details of quality assurance systems and/or procedures

## PART 8
## REFERENCES

Tenderers must provide names, phone numbers and addresses of no fewer than three client references.

| | |
|---|---|
| Name: | |
| Address: | |
| Telephone: | |
| Fax: | |
| Contact: | |

| | |
|---|---|
| Name: | |
| Address: | |
| Telephone: | |
| Fax: | |
| Contact: | |

| | |
|---|---|
| Name: | |
| Address: | |
| Telephone: | |
| Fax: | |
| Contact: | |

## PART 9
## PREVIOUS WORK EXPERIENCE

Tenderers must provide details of recent projects that demonstrate expertise applicable to the nominated works.

The following information is to be provided for each project separately:

- Company and address
- Name of project location
- Name and telephone number of principal contact
- Description of works undertaken (or services provided)
- Project value
- Project period

## PART 10
## TENDERER'S CURRENT COMMITMENTS

Tenderers must list the current projects the organisation is engaged in or committed to.

The following information is to be provided for each project separately:

- Company and address
- Name of project location
- Name and telephone number of principal contact
- Description of works undertaken (or services provided)
- Project value
- Project period

## PART 11
## SPECIFIED PERSONNEL

Tenderers must nominate the names of proposed **key personnel for the project**, listing their qualifications, level of expertise, relevant experience and percentage of time to be allocated on the work under the Contact.

The following information is to be provided for each person separately:

- Full Name of Specified Person
- Position Held
- Percentage of Time on the Project
- Qualifications
- Level of Expertise

## PART 12
## PROPOSED SUB-CONTRACTOR'S & SUPPLIERS

Tenderers must list all proposed sub-contractors and suppliers intended to be engaged by the tenderer in the performance of the work under the Contract.

The following information is to be provided for each sub-contractor or supplier separately:

- Sub-Contractor or Supplier
- Nature of Work

## PART 13
## ENVIRONMENTAL MANAGEMENT

1. Tenderers must provide details of their environmental systems, accreditations and/or procedures together with the following:

- Details of initiatives planned and/or undertaken to reduce your environmental impacts, including carbon footprint

- Examples of environmentally responsible business practices related to this tender

2. Tenderers must provide a full description of the proposed environmental management plan to be implemented as part of this project if applicable.

## PART 14
## PROPOSED PEDESTRIAN & TRAFFIC MANAGEMENT PLAN

Tenderers must provide the proposed pedestrian and traffic management plan to manage the works under the Contract.

## PART 15
## PROPOSED PROGRAM

Tenderers must submit a proposed program for the carrying out of the work under the Contract. The program must contain such information as required by the Contract.

Tenderers must indicate the proposed hours of work and working days

## PART 16
## PROPOSED METHODOLOGY

Tenderers must set out the proposed methodology and sequence for works to be performed under the Contract.

## PART 17
## PROPOSED SCHEDULE OF SITE AMENITIES

Tenderers must nominate the type, quantity and location of proposed site amenities.

## PART 18
## PROPOSED SCHEDULE OF PLANT & EQUIPMENT

Tenderers must list all items of plant and equipment proposed to be used in connection with performing the work under the Contract.

## PART 19
## DETAILS OF MATERIALS

Tenderers must provide sufficient information to describe the materials to be used in the works under the Contract.

## PART 20
## WARRANTIES

Tenderers must provide details of all relevant warranties/guarantees provided as part of the works under the Contract.

## PART 21
## OCCUPATIONAL HEALTH & SAFETY

As part of its duty of care obligations, the City of Sydney requires ***all successful bidders*** employed by the Council to comply with OH&S Legislation, Australian Standards, relevant Codes of Practice and the Council's OH&S Policy in accordance with:

- The legislative obligations placed upon all employers with respect to the Occupational Health and Safety Act 2000, and the OH&S Regulation 2001; and
- The Council's OH&S Policy Statement as provided in this part.

The following questionnaire (Form A) forms part of Council's tender evaluation process and is to be completed by tenderers and subsequently submitted with their offer.

***Failure to meet this criterion will result in the submitted tender being excluded from the evaluation process.***

Organisations who have successfully completed projects with a value greater than $250k for the City in the previous three (3) years are not required to complete this section. (This is only applicable to projects awarded from 2007). Tenderers must nominate the project details and the date awarded below:

Project details:_____
(include Tender No. if applicable)

Date Project awarded:_____

Should the bidder prove successful, the Council will monitor the contract for its duration to ensure that the Contractor manages the project effectively, meets the Council's OH&S requirements and complies with the relevant OH&S legislation to ensure that neither the Contractor, the Council, nor their employees, are placed at risk of injury or prosecution. Tools and forms for this process will be provided by the Council to the Contractor unless the Contractor can demonstrate that the Contractor's Instruments (tools and forms) are sufficient for the process.

Reference shall be made to the OH&S information provided within the specification documents to ensure –

- The site specific hazard information and controls are addressed within the relevant site OH&S Documentation; and
- Adequate resources are allocated for the site specific hazards and the proposed controls.

In the event of the bidder being successful, the Contractor shall be appointed as 'Principal Contractor' and the following statement shall be implemented –

"Under the terms of this contract, you (contractor) will be responsible at all times for the construction work until the work is completed. You (contractor) are hereby authorised to exercise the authority for City of Sydney to discharge the responsibilities of a Principal Contractor for the purposes of Chapter 8 of the NSW OHS Regulation 2001. City of Sydney, through its Contract Manager, retains the right, through inspection, consultation and audit, to ensure that all contract requirements and OHS Legislative requirements are being met." Requirements of the Occupational Health and Safety Regulation 2001 Clause 210, subclause (2).

# THE CITY OF SYDNEY'S OCCUPATIONAL HEALTH AND SAFETY POLICY

## POLICY STATEMENT

The City of Sydney is committed to the occupational health, safety and welfare of all its' employees, those contracted to perform work on behalf of the City of Sydney, and volunteers/visitors to the City of Sydney's premises and locations where work is being carried out. The City of Sydney regards its' occupational health and safety responsibilities with the utmost importance and as such, resources will be made available to comply with all relevant Acts and Regulations to ensure the workplace is safe and without risk to health.

## PRINCIPLES

All managers and employees of the City of Sydney, including contractors, volunteers and visitors have a shared responsibility for contributing to the health and safety of all persons in the workplace. The promotion, maintenance and dissemination of occupational health and safety information is primarily the responsibility of management. Management at all levels, in consultation with employees, have the responsibility for developing, implementing and keeping under review the City of Sydney's OH&S program.

## OBJECTIVES

This policy provides the framework for:

- the development of safe methods of work
- the achievement of a safe working environment
- the promotion of good health within the work force
- reducing the number and severity of injuries in the workplace
- complying with all relevant Acts, Regulations, Standards and Codes of Practice.

## STRATEGIES

### OHS Risk Management

The City of Sydney will establish and maintain a documented occupational health and safety system with procedures for identifying, assessing and controlling workplace hazards.

### Consultation

- An Occupational Health and Safety Committee comprising of employee and management representatives will be maintained to provide an effective consultative mechanism. Employees are able to provide input into the occupational health and safety policy and program. Management representatives who have the necessary power to authorise committee recommendations have been appointed to the committee.
- Management will consult with contractors, volunteers and visitors when planning the work to determine the most effective means of ensuring both parties fulfil their Occupational Health and Safety responsibilities.
- For further information on the City of Sydney's commitment to consultation refer to the OH&S Consultation Statement.

**Executive Management Review/Action Plan**

In order to implement the general provisions of this policy the OH&S Manager will facilitate an annual review by the Executive Management Team of the Occupational Health and Safety Management System and develop an Action Plan to be implemented. Managers will use the outcomes of the Executive review to aid in the development of OHS objectives and targets for their business units.

**RESPONSIBILITIES**

**Managers:**

- Each manager is required to ensure that this policy and the Occupational Health and Safety program are developed and effectively implemented in areas under their control, and to support supervisors and hold them accountable for their specific responsibilities.

- Implementation of this policy and the associated program activities will be evaluated as part of the Performance Feedback System.

- Implementation of the City of Sydney's Occupational Health and Safety Risk Management procedures shall be a primary responsibility for managers in each area.

**Supervisors**

- Each first line supervisor is responsible, and will be accountable, for taking all practical measures to ensure that the workplace under their control is safe and without risks to health, and that the behaviour of all persons in the workplace is safe and without risks to health.

- The supervisor will be held accountable for detecting any unsafe or unhealthy conditions or behaviour.

- If supervisors do not have the necessary authority to fix a problem, they will be held accountable for reporting the matter promptly, together with any recommendations for remedial action to a manager with the necessary authority to affect a remedy.

**Employees**

- All employees are required to cooperate with the Occupational Health and Safety policy and program to ensure their own health and safety and the health and safety of others in the workplace.

- All employees will carry out their work according to the safe systems of work, use personal protective equipment (PPE) provided and use all plant, materials, tools and substances in the manner for which they are intended.

**Contractors and Sub-Contractors**

Contractors and sub-contractors engaged to perform work on the City of Sydney's premises or locations are required, as part of their contract, to comply with the City of Sydney's occupational health and safety policies, procedures and programs and to observe directions on health and safety from designated officers of the City of Sydney. Failure to comply or observe a direction will be considered a breach of the contract and sufficient grounds for termination of the contract.

**Volunteers and Visitors**

All volunteers and visitors are required to cooperate with the Occupational Health and Safety policy and program in order to assist the City to fulfil it's obligations toward volunteers and visitors. This includes participating in OHS training when required, complying with the established safe systems of work and wearing the appropriate Personal Protective Equipment when required.

**OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

In order to implement the general provisions of this policy, a program of activities and procedures will be developed, reviewed and updated, and effectively carried out. The program will relate to all aspects of occupational health and safety including, but not limited to:

- OHS training and education – general and hazard specific

- work system and procedure design, workplace design and safe work methods
- changes to work methods and practice
- emergency procedures and drills
- provision of OHS services, equipment and facilities
- workplace inspections, risk assessments and safety plans
- reporting and recording of incidents, accidents, injuries and illnesses
- provision of information to employees, contractors, sub-contractors, volunteers and visitors.

**RELEVANT LEGISLATION**

- Occupational Health and Safety Act 2000
- Occupational Health and Safety Regulation 2001

**RELATED POLICIES/PROCEDURES**

- Occupational Health and Safety Procedures Manual
- Alcohol and Other Drugs Policy
- Infectious Disease Policy
- Personal Protective Equipment Policy
- OHS Consultation Statement
- Locally Developed Procedures and Work Methods
- Return to Work and Injury Management Programs
- Workers Compensation Procedures
- Grievance Handling Procedures
- Discipline Policy and Procedures

**EVALUATION**

- The City of Sydney is committed to the establishment of measurable objectives and targets for OHS to ensure continuous improvement aimed at the elimination of work related illness and injury. The effectiveness of the policy will be measured by the:
- development and implementation of business unit objectives and targets by business unit managers
- the number of safety actions signed off as completed by managers
- decrease in lost time due to illness and injury, and a resulting reduction in workers compensation liability

**RESOURCE IMPLICATIONS**

- Appointment of an OH&S Manager, OHS Project Manager, 2 x OH&S Advisors, and an OH&S Project Officer
- Budgetary provision for the Occupational Health and Safety Program

- Allocation of time for effective safety training of the workforce

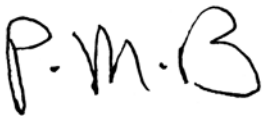
**NEXT REVIEW DATE**

August 2011

**ENDORSEMENT**

This policy has been reviewed by the Occupational Health and Safety Manager in consultation with the Occupational Health and Safety Committee.

**AUTHORISATION**



28.1.09

**Monica Barone**

Chief Executive Officer

**FURTHER INFORMATION**

Human Resources Unit, Level 5 Town Hall House

Work Cover Authority NSW 13 10 50

# Form A

**This form is to be completed by the Tenderer and is to accompany the tender submission. It will be completed by the City of Sydney during the tender review process**

**Tenderers are reminded that Form B has also been provided with the tender documentation as a guide to the OHS criteria against which you will be assessed. You do not need to complete Form B but rather ensure the documents you submit meet the criteria as outlined in that form. It would greatly assist The City during the review and verification process if you would take the time to reference documents in relation to the criteria in Form B.**

**NB: If the OHS Component of the Tender is not satisfactory the Tender will be rejected.**

## Tenderer Occupational Health and Safety Management System Documentation – Level 1 Contract.

*This questionnaire is part of Council's tender evaluation process and is to be completed by tenderers and submitted with their tender offer. The objective of the questionnaire is to provide an overview of the status of the tenderers Occupational Health and Safety Management System. Tenderers will be required to verify their responses noted in the questionnaire by providing evidence of their ability and capacity to meet contract requirements.*

## Certification

*"The information that is provided in and with this questionnaire is an accurate summary of the company's occupational health and safety management system".*

**Company Name:** _____

**Signed:** _____ **Name:** _____

**Position:** _____ **Date:** _____

**Contract Details**

**Contract Name:** _____

**Tender Number:** _____

# Tenderer OHS Management System Documentation - Level 1 Contract Questionnaire

**1. OHS Management System**

| **Documentation Requirement** | **Provided** COS use only | **Verified** COS use only | **Compliant with Form B criteria Yes or No** COS use only |
|---|---|---|---|
| 1.1 Please provide a copy of your Occupational Health and Safety Management System and/or Policies and Procedures Manual | | | |
| 1.2 Please indicate below what, if any, ***external*** certification (eg: Safety Map, NSCA 5-Star System, Construction Agency Coordination Committee) has been done for your OHS Management System and what the level of that certification is.<br>_____<br>_____ | | | |

**2. OR, if you do not wish to supply your manual, please provide the following documents.**

| **Documentation Requirement** | **Reference or Document Number** | **Provided** COS use only | **Verified** COS use only | **Compliant with Form B Criteria Yes or No** COS use only |
|---|---|---|---|---|
| **2.1 OHS Policy and Management** | | | | |
| 2.1.1 OHS Policy | | | | |
| 2.1.2 Responsibility statements, duty statements or job descriptions which address OHS responsibility and accountability for all levels of staff. | | | | |
| **2.2 Safe Work Organisation** | | | | |
| 2.2.1 Safe Work Method Statement preparation procedures, blank forms and examples. | | | | |
| 2.2.2 Company Safety Rules and Instructions. | | | | |
| 2.2.3 Emergency Procedures development. | | | | |
| 2.2.4 Permit to Work Procedures and forms. | | | | |
| 2.2.5 Accident/Incident/Near Miss reporting, recording and investigation procedures and forms (including examples). | | | | |
| 2.2.6 Plant maintenance, inspection, recording and operating procedures. | | | | |
| **Documentation Requirement** | **Manual Page No. Reference or Document Number** | **Provided** COS use only | **Verified** COS use only | **Compliant with Form B Criteria Yes or No** COS use only |

| | | | | |
|---|---|---|---|---|
| 2.2.7 Hazardous substances storage, handling, recording and risk assessment procedures. | | | | |
| 2.2.8 Manual Handling Risk Management Procedures. | | | | |
| **2.3 OHS Training** | | | | |
| 2.3.1 OHS training recording procedures and forms. | | | | |
| 2.3.2 Recording procedures for General Health and Safety Induction and Work Activity Based Health and Safety Inductions. | | | | |
| 2.3.3 Procedures for conducting and recording Site Specific Health and Safety Inductions. | | | | |
| **2.4. OHS Workplace Inspection** | | | | |
| 2.4.1 Procedures for Health and Safety Inspection of sites. | | | | |
| 2.4.2 Site Health and Safety Inspection Checklists and Report Forms. | | | | |
| 2.4.3 Procedures for the reporting and recording of hazards. | | | | |
| 2.4.4 Procedures, forms and guidelines for the risk assessment and risk control for reported hazards. | | | | |
| **2.5 OHS Consultation** | | | | |
| 2.5.1 OHS Consultation Statement or procedures for consultation. | | | | |
| **2.6 OHS Performance Monitoring** | | | | |
| 2.6.1 OHS statistical recording and analysis procedures. | | | | |
| 2.6.2 Procedures for the dissemination of OHS information to employees. | | | | |

### 3. OHS Offences

| **Documentation Requirement** | **Provided** COS use only | **Verified** COS use only | **Compliant With Form B criteria Yes or No** COS use only |
|---|---|---|---|
| 3.1 Please attach details of any prosecution of the Company for OHS offences in any State or Commonwealth jurisdiction. | | | |

## 4. Company References

Please provide the following information for the three (3) most recent contracts completed by the company:

| | Contract 1 | Contract 2 | Contract 3 |
|---|---|---|---|
| **Contract Description** | | | |
| **Client** | | | |
| **Contact Person or Position** | | | |
| **Phone No:** | | | |
| **Number of lost time injuries** | | | |
| **Number of days on contract** | | | |
| **Total days lost due to injuries** | | | |

Further comments about your previous OHS Performance to support your Tender

_____

_____

_____

_____

**To be Completed by Person Evaluating the Tender**

C of S use only

**Name of Person Evaluating Tender:** _____

Please Print

**Date**: _____ **Position**:_____

**Signature:** _____

| | Contract 1 | Contract 2 | Contract 3 |
|---|---|---|---|
| Was previous OHS Performance Acceptable? Yes or No | | | |
| Were Corrective Actions Issued Yes or No | | | |
| Did Work Cover issue fines or take evidence for prosecution on? Yes or No | | | |
| Did the Contractor correct identified OHS Issues appropriately? Yes or No | | | |

## PART 22
## FINANCIAL AND ENVIRONMENTAL PAYBACK ANALYSIS

Tenderers must provide the financial and environmental payback analysis for the design and installation of the Energy and Water Efficiency Retrofit of the City's Buildings and Operations.

The financial and environmental payback analysis must be based on simple payback criteria.

The financial and environmental payback analysis must include a higher level risk review that clearly identifies the risks associated with delivery and ongoing operations, the impact of those risks and the controls (mitigation) to be put in place to minimise those risks.

## PART 23
## OUTPUT PERFORMANCE SPECIFICATION CRITERIA

As specified in Clause – Output Performance Specification Criteria Tenderers must provide the following information:-

Reductions in Energy and Water Consumption and Greenhouse Gas Emissions Key Performance Criteria and Guarantees

| | |
|---|---|
| Reduction in Energy Consumption<br>*(Minimum of 6,641,880kWh pa[1])* | in % |
| Reduction in water consumption<br>*(Minimum of 56,313kL pa[2])* | in % |
| Reduction in $CO_2$ equivalent Emissions<br>*(Minimum of 6,711 Tonnes of $CO_{2e}$ pa[3])* | in % |

The Contractor's claimed reduction in energy and water consumption and $CO_2$ equivalent emissions for the energy and water efficiency projects submitted as part of their tender to deliver the reduction targets shall be guaranteed by the Contractor. As part of the tender submission, Tenderers are required to state the cost of providing a 10% performance bond in accordance with clause 5.2 of the Contract. The City will assess this cost and elect whether it will require the successful Tenderer to provide the performance bond or not. If the performance bond is not required, clause 5.2 of the Contract will be deleted.

As part of the tender submission, Tenderers must submit the Measurement and Verification Plan that is proposed to be applied to measure the reduction in energy and water consumption and $CO_2$ equivalent emissions. The Measurement and Verification Plan must be a viable measurement system or tool capable of application by the City or a third party. The proposed Measurement and Verification Plan will be taken into account by the City when applying the assessment criteria to the tender submission. Further information is contained in Clause – Output Performance Specification Criteria.

Technical Performance Criteria

| | |
|---|---|
| Reduction in $CO_2$ equivalent Emissions | in Tonnes pa |
| Reduction in Electricity Demand | in kW |
| Reduction in Electricity Consumption | in kWh pa |
| Reduction in Gas Consumption | in kWh pa |
| Reduction in Water Demand | in kLitres |
| Reduction in Water Consumption | in kLitres pa |

Financial Performance Criteria

| | |
|---|---|
| Simple Payback | in Years |
| Internal rate of Return | in % |

Energy and water prices that the City pays as from 1 July 2010 are:-

[1] Minimum of 20% reduction in energy consumption from 2005/06
[2] Minimum of 20% reduction in water consumption from 2005/06
[3] Minimum of 23% reduction in $CO_{2e}$ emissions from 2005/06

Electricity

| | Current[4] c/kWh) |
|---|---|
| Electricity: Peak[1] | 17.125 |
| Shoulder[2] | 14.721 |
| Off Peak[3] | 6.192 |

Other Electricity Charges

DUOS Peak Capacity 14.505 cents per day per kVA[5]

| | |
|---|---|
| Network Access | $1.88 per meter per day |
| Meter Provision | $675 per meter per annum |

[1] Mon-Fri working days between 14:00-20:00 hours
[2] Mon-Fri working days between 07:00-14:00 hours and 20:00-22:00 hours
[3] At all other times
[4] Including network charges and ancillary costs but excluding City of Sydney GreenPower carbon offsets
[5] Capacity rate varies depending on the number of days in a month

Gas

| | Current $/MJ |
|---|---|
| Gas | 0.139744 |

Other Gas Charges

| | | |
|---|---|---|
| Supply Fee | 0 – 1TJ` | 61.15c/day |
| | 1 – 10TJ | 61.85c/day |

Water

| | $/kLitres |
|---|---|
| Water | 1.8700 |
| Sewer | 1.4230 |

Other Water Charges

| | |
|---|---|
| Water Service | $39.66 per quarter |
| Sewerage Service | $152.67 per quarter |

**VOLUME 2**
**SPECIFICATIONS**

## 2.1 General Requirements

Any design and installation works to be carried out in conjunction with this Contract shall comply with the appropriate Australian or International Standards and Codes of Practices and this Specification.

The Contractor shall be deemed to be aware of the contents and requirements of the above documents and to have included within the tender sum for all requirements therein.

Installation drawings and documents and how the Contractor proposes to meet this Specification shall accompany the tender.

## 2.2 Description of Works

The work covered in this Specification is for the complete design, installation and commissioning of the energy and water efficiency retrofit of the City's buildings and operations and associated engineering works necessary to deliver the minimum absolute reductions in energy and water consumption and greenhouse gas emissions as detailed in Clause – Output Performance Specification Criteria. The City's major energy and/or water consuming buildings and operations include the following:

1. Town Hall House - 456 Kent Street, Sydney
2. Ian Thorpe/Ultimo Aquatic Centre - 460-492 Harris Street, Ultimo
3. Cook and Phillip Park Pool - 4 College Street, Sydney
4. Customs House - 31 Alfred Street, Sydney
5. Victoria Park Pool - City Road, Chippendale
6. Andrew Boy Charlton Pool - 1 Lady Macquarie's' Drive, Sydney
7. 307 Pitt Street, Sydney
8. Epsom Road Depot - 94 Epson Road, Zealand
9. Bay Street Depot - Bay Street, Ultimo
10. Woolworths Building - 540 George Street, Sydney
11. Ultimo Community Centre - 38 William Henry Street, Ultimo
12. Kings Cross Neighbourhood Service Centre & Library - 50 – 52 Darlinghurst Road
13. Goulburn Street Car Park - cnr Elizabeth Street, Sydney
14. Zetland Community Centre (former South Sydney Hospital) - 132-140 Joynton Avenue, Zetland.
15. Sydney Town Hall - 483 George Street, Sydney
16. Kings Cross Car Park - Elizabeth Bay Road, Kings Cross
17. King George V Recreation Centre - 15 Cumberland Street, The Rocks
18. Surry Hills Community Centre - 405 Crown Street, Surry Hills
19. Railway Square Interchange - Haymarket
20. Rex Centre - 58A Macleay Street, Kings Cross,
21. Bourke Street Depot - 75 Bourke Street (cnr Plunkett Street) , Woolloomooloo
22. Redfern Community Centre - 29-53 Hugo Street, Redfern
23. Paddington Town Hall - 247 Oxford Street, Sydney
24. Haymarket Library - 744 George Street, Sydney
25. Rosebery Depot - Dunning Ave, Rosebury

26. Glebe Library - 186 Glebe Point Road, Glebe
27. Pyrmont Community Centre - Corner of John and Mount Street, Pyrmont
28. Meals on Wheels Centre - Unit 7/8-10 Burrows Road, St Peters
29. 101-111 William Street - Woolloomooloo
30. Redfern Town Hall - 73 Pitt Street, Redfern
31. Waterloo Library - 770 Elizabeth Street, Waterloo
32. Nursery and Depot - 38 Barwon Park Road, St Peters
33. 55-66 Oxford Street - Darlinghurst
34. Kings Cross North Centre - 50 – 52 Darlinghurst Road
35. Sydney Park pavilion - Euston Road, St Peters
36. Juanita Nielsen Community Centre - 31 Nicholson Street, Woolloomooloo
37. Newtown Library - 8– 10 Brown Street, Newtown
38. Abraham Mott Hall - 17 Argyle Place, Millers Point
39. Corporation Building - 447 Pitt Street, Haymarket
40. Recycling Depot Amenities - 25-29 Burrows Road, St Peters
41. State Emergency Services facility - 107-125 Railway Parade, Erskineville.
42. Alexander Child Care Centre - 41 Henderson Road, Alexandria
43. St Helens Community Centre - 186 Glebe Point Road, Glebe
44. Ron Williams Activity Centre - 19 Greenknowe Avenue, Potts Point
45. 82-106 Oxford Street - Darlinghurst
46. and potentially other sites

In addition, the City has recently acquired 343 George Street, Sydney, NSW 2000 (10,584m$^2$ net lettable floor area) and the old Tote building, 100 Zetland Avenue, Zetland, NSW 2017. Reductions in energy and water consumption and greenhouse gas emissions in these buildings will also contribute towards to total reductions in energy and water consumption and greenhouse gas emissions even though the City did not own these buildings in 2005/06 and does not currently have any data on these sites.

The Contractor may select any combination of the foregoing buildings in which to carry out the energy and water efficiency retrofit works in order to deliver the minimum absolute reductions in energy and water consumption and greenhouse gas emissions specified. The individual projects in individual buildings with their individual reductions in electricity, gas and water consumption and greenhouse gas emissions and tendered prices are to be included in the financial and environmental payback analysis and the individual building tendered prices are to be inserted in the respective Item No. in Part 2 – Schedule of Technical Data and Prices.

Existing primary plant for some of the major buildings are detailed in the Appendices – Volume 5.

The engineering works shall be as detailed in the following clauses, tables and accompanying drawings and shall comprise:-

### 2.2.1 Energy and Water Efficiency Retrofit

Energy and water efficiency retrofit technologies shall include, but not restricted to:

- Energy efficient lighting
- LED lighting
- Daylight linking using high frequency regulated control gear for lighting
- Silverlux reflectors for lighting
- Movement detectors and lighting controls
- Building Energy Management Systems, including controls and monitoring

- Heating, ventilation and air conditioning advanced controls and monitoring
- Heat recovery and free cooling for air handling unit systems
- Replacement of electric heating with gas fired boiler heating or interconnection to the City's trigeneration system
- Variable speed drives for pumps, fans and other motors, including lift motors
- Refrigeration, air conditioning and air handling equipment fixed speed motor energy loss controllers
- Voltage optimisation
- Power factor correction
- Loft insulation
- Cavity wall insulation
- Insulated cladding
- Low emissivity double glazing, including argon gas filling
- Waterless urinals
- Water flow controls
- Toilets dual flushing
- Cistern dam regulators
- Pool water recirculation
- Water recycling and recovery systems, including rainwater harvesting, greywater recycling, etc
- Reduced water meter sizing

The Contractor shall make allowance for the adaptation or replacement of existing services necessary for the complete installation of the energy and water efficiency retrofit measures whether mentioned in this Specification or not, to ensure that the complete installation complies with the operational design and performance and the requirements of this Specification.

### 2.2.2 Potentially Other Energy and Water Efficiency Retrofit Sites

Potentially Other Energy and Water Efficiency Retrofit Sites as determined by the Contractor but complying with this Specification.

The City owned sites throughout the City of Sydney and associated energy consumption are detailed in the Appendices – Volume 5.

The Contractor shall submit their detailed proposals for any other energy and/or water efficiency retrofit sites that could form part of this contract at the time of submitting their tender.

### 2.2.3 Maintenance and Operating Instructions, Record Drawings and Training

Provision of maintenance and operating manuals, record drawings and on site training of nominated personnel.

### 2.2.4 Labels, Circuit Lists/Diagrams, Testing, Inspection and Commissioning

Labels, circuit lists/diagrams, testing, inspection and commissioning of the energy and water efficiency electrical and mechanical installations and associated systems (including liaison with others and co-ordination of all services and commissioning provided by others, contained and/or connected with this Specification).

### 2.2.5 Removal of Redundant Existing Installation

Complete removal and disposal of any redundant installation except that, where the existing installation is in pipework or conduit; pipework or conduits run in floor voids, under floors or flushed into walls and ceilings may be left, provided they do not create a hazard, all pipework is drained and all cables are withdrawn and the pipework or conduits are cut off clean where they come to the surface.

Flushed in boxes and adaptable conduit boxes in such circumstances shall be fitted with a box lid and left but boxes for accessories, i.e. switches and socket outlets shall be removed.

### 2.2.6 Retention of Existing Services

The Contractor shall disturb the existing services being retained as little as possible. Where it is necessary to disturb these services in order to progress the work in a professional manner, the services shall be replaced in a manner satisfactory to the Superintendant. Should any damage occur to these services as a result of disturbance, the Contractor shall bear the cost of rectifying any such damage.

Where the retained services form part of the electrical, mechanical or water installations, they shall be included within the overall testing and handover procedure.

### 2.2.7 General

The Contractor shall allow for moving and replacing loose furniture and floor coverings, erecting scaffolding over fixed furniture and lifting and replacing flooring, as necessary for progressing the work. All fixed equipment, furniture and floor coverings not removed shall be protected against damage or debris and the Contractor shall allow for the provision and use of dust sheets.

In public areas, staff rooms and offices, it may be necessary to lift and relay fitted floor coverings. This shall be done by arrangement with the occupant. The work shall be done in a professional manner and due allowance made when tendering.

Each room or area completed by the Contractor shall be dusted and swept clean and all furniture and equipment replaced in a clean condition before occupation. In rooms where computer equipment is installed dust and other pollutants shall be mechanically extracted to the satisfaction or the Superintendant.

### 2.2.8 Associated Civil and Builders Works

Carrying out and providing tools, equipment, scaffolding and labour for all necessary builders work (including trenching, cutting away and making good) in connection with this Specification.

### 2.2.9 Liaison with the City's Project Management Personnel

Contact will be restricted to the Superintendent in relation to any matters arising from access to or the performance of works in relation to one or more of the Properties. The Superintendent will liaise with the relevant personnel regarding a building.

The Contractor shall allow for any necessary liaison work, etc., with the City's Managers for each building including any necessary out-of-hours working.

## 2.3 Period Specified for Completion of Works

The contract provides for the completion of the design and installation works within the following period:-

| | |
|---|---|
| Commencement of contract: | June 2011 (indicative) |
| Contract period: | 24 calendar months (indicative) |

Any variation to the commencement of the contract and/or contract period must be submitted by the Contractor at the time of tendering.

The contract period shall commence on the actual date stated in the contract and allowance shall be made for this varying from the anticipated date. The contract period shall include for:-

(i) the time required for programming, submission and approval of material lists and any other necessary preambles.

(ii) completion of any item shown on the 'Defects and Omissions' list reference provided by the Superintendant and all tests required at the completion of the contract including the submission of test, completion and inspection certificates.

## 2.4 Programme of Work

In addition to the Methodology and programme provided by the Contractor with their tender the Contractor shall submit a method statement and a fully completed time based programme of work in the form of a bar-chart to the Superintendant for discussion with building managers within two weeks of the commencement of the contract and before any work is started on site. Any amendments necessary shall be incorporated and a finalised programme shall be prepared by the Contractor and submitted in duplicate to the Superintendant and a copy supplied to each building manager.

The programme shall indicate in detail the methods and resources to be used, setting out the period over which each section of the work is to be carried out. This programme shall be based on the dates provided and show details of labour resources, design and builder's work drawing approval, contract action for major bought out items, manufacture, delivery, installation and testing of each section.

Before any work is started on site, the Contractor will be required to comply with any other requirements of the City as set out in the Contract.

Temporary disconnection of services shall be kept to a minimum and the Superintendent shall be kept fully informed of the action to be taken and advised when the work has been completed.

Where a building is occupied the Superintendent may impose restrictions relating to the completion of works by the Contractor, particularly when restrictions are imposed to preserve a tenant’s right to quiet enjoyment of its premises. The Contractor must comply with any directions issued by the Superintendent in this way. The public lighting, cash office, fire and security alarms, telephones, water and other essential services shall be kept in use, air conditioned and in lighting at any one time, using temporary connections/lighting as necessary, as agreed with the Superintendent.

Work shall be completed within the contract period. Any work not anticipated to be completed on time shall be carried out during out-of-hours working and due allowance shall be made for this by the Contractor in their tender, if applicable. Particular attention shall be paid to working in occupied premises and to the health and safety of staff, other Contractors, including the Maintenance and Cleansing Contractors, and the general public, particularly where cranes, scaffolding and/or erection equipment is used.

The Contractor shall:-

(i) supply revised programmes as may become necessary;

(ii) report the progress of works in a manner that relates directly to the programme and in this respect will conform to the Superintendant's procedure;

(iii) provide two copies of weekly labour reports for the Superintendant indicating the total number of operatives (showing status) employed on site. These reports shall include the labour involved within the contract on site and shall commence from occupation of the site to completion.

The Contractor's specific attention is drawn to all areas of work that are specified to be carried out during out-of-hours periods, including the disconnection/ reconnection of power supplies, and the prior arrangements for access to the buildings during out-of-hours periods with the Superintendent.

It is essential that adequate labour resources are provided on site during these periods in order to meet these commitments.

## 2.5 Description of Building Construction and Visits to Sites

Certain areas of the buildings and parks will be affected by this contract due to the works involved in the delivery, off-loading and transportation of materials to the places of installation.

No guarantee can be given as to the accuracy of any drawing, plan or other record supplied by the City and are provided for information only. The Contractor shall rely on their own surveys, measurements, etc, in determining their tender prices and no claim for inaccurate drawings, plans or other records will be entertained by the City.

The Contractor shall allow in their tender for a visit to site prior to tendering. This visit shall constitute an obligatory requirement for tendering.

Full details of the structure of the buildings, details of all other services are to be obtained on site and it will be assumed that the Contractor has visited the sites and made allowance for all obstructions or complications arising from other services or structural details when tendering.

In view of the multi-site nature of this project the site visits have been divided into four site visit packages for the primary energy and water consuming buildings, as follows:

| | |
|---|---|
| Site Visits Package 1 - | Town Hall House<br>Sydney Town Hall |
| Site Visits Package 2 - | Cook & Phillip Park Pool |

| | |
|---|---|
| | Victoria Park Pool<br>Goulburn Street Car Park<br>Kings Cross Car Park |
| Site Visits Package 3 - | Ian Thorpe Aquatic Centre<br>Ultimo Community Centre<br>Andrew Boy Charlton Pool<br>King George V Recreation Centre |
| Site Visits Package 4 - | Customs House<br>307 Pitt Street<br>Woolworths Building<br>Epsom Road Depot<br>Bay Street Depot |

The tenderer shall immediately on receipt of this request for tender submit their requests for visiting and carrying out site surveys on the above sites for each of the Site Visits Packages, which must be for different periods in time, stating the number of weeks or days required to carry out the site visits/surveys. Each Site Visit Package shall not exceed 2 weeks and must not overlap another Site Visit Package. The City will use this information to allocate dates for each of the Site Visits Packages requested where the tenderer will be able to visit the sites and carry out site surveys.

The tenderer shall also submit their requests for visiting and carrying out site surveys on the remaining buildings that they are interested in throughout the tender period. Additional buildings may also be included within the above Site Visits Packages providing the site visit/survey period does not exceed 2 weeks. The City will use its best endeavours to meet these requests but no guarantee can be given that particular buildings can be visited on particular dates, particularly if towards the end of the tender period or where there are competing demands on the operation of these buildings.

It is in the tenderer's interest to put sufficient resources in a timely manner into this element of the tender, particularly at the commencement of the tender period.

Appointment to inspect the buildings shall be made with:

City of Sydney
Town hall House
456 Kent Street
Sydney NSW 2000

| | |
|---|---|
| Tendering Officer: | Paul Brown |
| Telephone No: | (02) 9265 9364 |
| Email: | pbrown@cityofsydney.nsw.gov.au |

On production of this Specification to each building manager the buildings may be inspected by the Contractor.

On arrival at the site and prior to making the inspection the Contractor shall report initially to the Reception Staff, identify themselves and state the purpose of the visit.

## 2.6 Health and Safety

The Contractor shall include in the tender sum for the provision of all access equipment and all temporary barriers, butterfly tapes or partial boarding of towers, as appropriate, that are necessary for the safe execution of this contract.

Mobile towers of quick erection type scaffolding must be used in accordance with the manufacturer's instructions as to securing to the building, bracing and movement.

All erection, moving or dismantling of cranes, mobile towers/scaffolding shall only be carried out when the particular areas are unoccupied. The Contractor shall take all reasonable steps to avoid the creation of hazardous situations. Where cranes/access equipment has to be employed in:

(i) external areas - a temporary barrier fence 1.5 metres high shall be provided at a distance of approximately 2 metres from the base of the crane or access equipment in order to achieve segregation from staff or the general public.

(ii) internal areas - where access equipment has to be employed in areas not handed over to their sole use, but through which staff or the general public have to pass during the normal functions of the building, the Contractor shall employ temporary barriers, butterfly tapes or partial boarding of towers as appropriate, to deter encroachment or interference by unauthorised persons.

When the building is occupied the Contractor shall ensure that no floor trap or other hazard or obstacle is left open unless completely surrounded by a rigid barrier 1 metre high, and that no corridor, staircase or emergency exit is obstructed in any manner that may create a hazardous situation or in any manner liable to impede the rapid evacuation of the building in the event of an emergency. Any partial obstruction of such areas necessary to progress the work shall be agreed with the Superintendent.

The Contractor shall ensure that all tools and unfixed materials required to carry out the work are safeguarded during the course of the working day and are not left unattended on site. At night and during weekends all tools and loose materials shall be securely locked away. No tools or materials shall be stored in riser cupboards, corridors, access ways or any other areas where access for maintenance or means of escape are impeded or limited.

The Superintendant will take action in removing employees or sub-contractors should any employee or sub-contractor of the Contractor contravene this Clause or any other health and safety legislation or safe working practice.

## 2.7 Newly Acquired City Property

The City has recently acquired 343 George Street, Sydney, NSW 2000 which is an ‘A’ grade commercial development. The building has 13 levels and comprises 10,584m$^2$ net lettable area including the lower ground floor and ground floor retail space and 10 levels of office accommodation. The building was built in 1925 and was partially refurbished in 2006.

The City has also acquired the historic Tote building at 100 Zetland Avenue, Zetland, Zetland, NSW 2017 to accommodate a temporary library link and customer services centre. The history of the building dates back to 1908.

Reductions in energy and water consumption and greenhouse gas emissions in these buildings will also contribute towards to total reductions in energy and water consumption and greenhouse gas emissions even though the City did not own these buildings in 2005/06.

## 2.8 CCHP or Trigeneration Systems

### 2.8.1 General

The combined cooling, heat and power (CCHP) or trigeneration systems is the subject of another tender and no cogeneration or trigeneration shall be included in this tender.

The CCHP or trigeneration tender will comprise the complete installation of the combined heat and power units, associated acoustic enclosures, heat recovery boilers, coolers and heat rejection equipment, thermal stores, back-up boilers, heat fired absorption chillers, adiabatic coolers, distributed heat and chilled water mains and private wire networks, electricity and gas connections, electrical and mechanical services, controls and all other associated works and the provision and installation of the CCHP and Building Energy Management System controls/ monitoring, interfaces, software, schematics, etc.

### 2.8.2 System Design and Operation - General

For information only the CHP plant will act as the primary thermal energy plant with large scale thermal storage followed by back up boilers rated to the peak thermal energy load. The CHP will be designed to maximise continuous electricity generation within the optimum design and economics of the project. However, the overall efficiency of the CCHP or CHP system will comply with the 'Good Quality CHP' criteria of the UK's CHP Quality Assurance (CHPQA)[4] programme that sets standards of efficiency of CHP systems. CCHP and CHP systems that comply with the CHPQA 'Good Quality CHP' criteria does allow for some heat rejection.

### 2.8.3 System Design and Operation for Victoria Park Pool

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

### 2.8.4 System Design and Operation for Ian Thorpe Aquatic Centre

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

### 2.8.5 System Design and Operation for Cook and Phillip Park Pool

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption

[4] UK Department of Energy and Climate Change 'CHPQA – Quality Assurance for Combined Heat and Power' www.chpqa.com

cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

#### 2.8.6 System Design and Operation for Andrew Boy Charlton Pool

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

#### 2.8.7 System Design and Operation for Prince Alfred Park

The CCHP system will be connected to the new cooling, heating and electricity systems by the CCHP Contractor. The new cooling system will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

#### 2.8.8 System Design and Operation for Town Hall Precinct – Phase 1

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

#### 2.8.9 System Design and Operation for Customs House

The CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The existing electric cooling system will be replaced a new air handling unity system by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

#### 2.8.10 System Design and Operation for Potentially Other CCHP Projects

The CCHP Contractor may provide CCHP to other potential CCHP sites under the CCHP tender. If so, the CCHP system will be connected to the existing cooling, heating and electricity systems by the CCHP Contractor. The electric cooling system will be adapted or replaced by the CCHP Contractor to be supplied by a new heat fired absorption cooling system which will also cool the CHP engine plant room(s) to generate maximum electricity at the manufacturer's stated ambient thermal conditions.

## 2.9 Renewable Energy

Large scale photovoltaic systems are the subject of another 5 year framework agreement tender and no photovoltaic or solar water heating systems shall be provided to the buildings included in the Photovoltaic Systems tender.

The buildings where photovoltaic systems are to be installed or could be installed under the Photovoltaic Systems tender are detailed in the Appendices – Volume 5. The buildings identified are divided into a Primary List of Buildings, where photovoltaic systems will be installed by the Photovoltaic Systems Contractor, and a Secondary List of Buildings, where photovoltaic systems may be installed by the Photovoltaic Systems Contractor.

The Contractor for this Energy and Water Efficiency Retrofit of the City's buildings and operations contract may include photovoltaic systems from the Secondary List of Buildings in their tender. However, if there is any duplication between the two contracts the Superintendant shall substitute the photovoltaic system or systems in this contract with a photovoltaic system or systems for another building or buildings at an increased or decreased price agreed with the Contractor for this contract or delete the duplicated photovoltaic system or systems, entirely as directed by the Superintendant.

Other forms of renewable energy, such as micro, small or medium scale wind energy or other renewable electricity systems, may be included in the tender for this contract but no solar water heating system shall be installed where a photovoltaic system could be installed. Thermal renewable energy systems, such as ground source geothermal heat pumps, may only be installed for remote buildings with little or no prospect of being connected to the City's trigeneration system.

## 2.10 Building Energy Management Systems

Building Energy Management Systems (BEMS) currently exist in a number of City buildings as detailed in the Appendices – Volume 5. However, these BEMS may be replaced by new BEMS providing they are all of the same manufacture and type as any new BEMS, operate as a holistic integrated system and their replacement would provide additional reduction in energy consumption and $CO_2$ emissions.

Alternatively, the Contractor may adapt and/or reconfigure the existing BEMS to operate in conjunction with any new BEMS as a holistic integrated system.

Any new or replacement Building Energy Management System (BEMS) shall be able to be supported and maintained by third party contractors without any limitation or restriction by the Contractor or manufacturer and shall include for any new detectors, controls, status, flow and return temperatures, Legionella Pneumophila monitoring, alarm conditions, colour operating graphics and schematics, etc., required by the Contractor to be replaced or currently non existent, and the provision for remote control/monitoring for the CCHP or trigeneration systems and the City's Facility Management Contractor's remote manned station, including modem/telephone lines, internet connections, etc.

External temperature, humidity, wind speed and illumination levels shall be provided for the BEMS so that advanced environmental algorithms can be provided to monitor and control internal building temperature, air velocity and comfort as well as external lighting controls.

A ring network type BEMS or other similar robust and reliable BEMS shall be used so that each BEMS station can operate independently in the event of a failure in the BEMS at the master control and monitoring station or another BEMS station.

## 2.11 Energy and Water Efficiency Retrofits Previously Installed

Energy and water efficiency retrofits previously installed or committed by the City prior to this tender are detailed in the Appendices – Volume 5. It should be noted that the list of works detailed is not exhaustive and does not include for example,

operational changes such as fine tuning of set points or operating times or staff programmes such as 'Green Champions'.

## 2.12 Proposed Energy and Water Efficiency Retrofit Projects

Energy and water efficiency retrofit projects previously assessed by the City for future installation as part of its ongoing programme of reducing energy and water consumption and greenhouse gas emissions are detailed in the Appendices – Volume 5. These works have been suspended pending the outcome of this request for tender. The Contractor may include any or all of these projects in their energy and water efficiency retrofit proposals but no guarantee can be given as to the accuracy of the forecast reduction in consumption.

## 2.13 Property Acquisitions, Disposals and Changes in Operational Requirements

The City reserves the right to acquire, dispose or change the operational requirements of its buildings and operations during the course of this contract. The Contractor will be consulted on any proposed property disposal or changes in the operational requirements of buildings or parts of buildings that may impact on the Building Energy and Water Efficiency Retrofit contract and due allowance taken into account on any technical or financial impact on the Contractor's output performance specification criteria and energy/water performance guarantees, as appropriate.

Additional buildings acquired during the course of this contract and/or alternative buildings or projects may be added to the contract by variation order(s) and/or to offset any property disposals or changes in operational requirements of buildings to maintain the absolute reductions in energy and water consumption and greenhouse gas emissions in 2005/06 specified in the contract.

## 2.14 Financial and Environmental Payback Analysis

Tenderers must provide the financial and environmental payback analysis for the design and installation of the Energy and Water Efficiency Retrofit of the City's Buildings and Operations. See Part 22 – Financial and Environmental Payback Analysis.

The financial and environmental payback analysis must be based on simple payback criteria.

The financial and environmental payback analysis must include a higher level risk review that clearly identifies the risks associated with delivery and ongoing operations, the impact of those risks and the controls (mitigation) to be put in place to minimise those risks in the following format.

| Risk | Impacts | Existing Controls |
|---|---|---|
| Description of risk | Impact on project objectives and when in operation | <What is being done to prevent the risk and minimise the impacts> |

## 2.15 Output Performance Specification Criteria

Both the tenders and the subsequent contract will be measured against the following key output performance specification criteria:-

Reductions in Energy and Water Consumption and Greenhouse Gas Emissions Key Performance Criteria and Guarantees

| | |
|---|---|
| Reduction in Energy Consumption<br>*(Minimum of* 6,641,880*kWh pa*[5]*)* | in % |
| Reduction in water consumption<br>*(Minimum of 56,313kL pa*[6]*)* | in % |
| Reduction in $CO_2$ equivalent Emissions<br>*(Minimum of 6,711 Tonnes of $CO_{2e}$ pa*[7]*)* | in % |

The Contractor's claimed reduction in energy and water consumption and $CO_2$ equivalent emissions for the energy and water efficiency projects submitted as part of their tender to deliver the reduction targets shall be guaranteed by the Contractor. As part of the tender submission, Tenderers are required to state the cost of providing a 10% performance bond in accordance with clause 5.2 of the Contract. The City will assess this cost and elect whether it will require the successful Tenderer to provide the performance bond or not. If the performance bond is not required, clause 5.2 of the Contract will be deleted.

Tenderers must base the proposed Measurement and Verification Plan and energy and water performance guarantees on a national or international accredited or proven Measurement and Verification Plan. The Contractor shall submit details of the Measurement and Verification Plan on which their tender is based at the time of tender. The Measurement and Verification Plan must be a viable measurement system or tool capable of application by the City or a third party. The proposed Measurement and Verification Plan will be taken into account by the City when applying the assessment criteria to the tender submission. The Measurement and Verification Plan of the successful tenderer is subject to the requirements of the Contract

The reduction in energy and water consumption and $CO_2$ equivalent emissions shall be measured against the historical energy and water consumption in 2005/06. Each energy and water efficiency measure or project, or group of measures or projects, shall be measured 12 calendar months from the completion/ commissioning date for each energy and water efficiency measure or project, or group of measures or projects, taking account of energy and water efficiency measures or projects previously installed by the City under other contracts, acquisition/disposal of properties and the gridded average of heating and cooling degree days metadata for the Sydney area[8].

Any under performance or failure to deliver any of the reduction in energy and water consumption and greenhouse gas emissions key performance criteria and guarantees by the Contractor shall be compensated by the Contractor designing

[5] Minimum of 20% reduction in energy consumption from 2005/06
[6] Minimum of 20% reduction in water consumption from 2005/06
[7] Minimum of 23% reduction in $CO_{2e}$ emissions from 2005/06
[8] Australian Government Bureau of Meteorology Gridded Average of Heating & Cooling Degree Days Metadata http://www.bom.gov.au/climate/averages/climatology/gridded-data-info/metadata/md_ave_HDD-CDD_1961-90.shtml

and installing further energy and/or water efficiency retrofits of the City's buildings and operations, as agreed with the Superintendant, at the Contractor's sole cost or otherwise in accordance with the Contract.

Basis of the Reductions in Energy and Water Consumption and Greenhouse Gas Emissions Key Performance Criteria and Calculations

The minimum reductions in energy and water consumption and greenhouse gas emissions key performance criteria are absolute reductions which at least must be delivered by the Contractor. The Contractor may deliver more than any of the specified minimum absolute reductions in energy and water consumption and greenhouse gas emissions, particularly if this is to deliver the minimum absolute reduction in greenhouse gas emissions.

The basis of the absolute reductions in energy and water consumption and greenhouse gas emissions has been calculated, as follows:-

**Energy Consumption**

Electricity Consumption in 2005/06 26,032,648kWh
Gas Consumption in 2005/06 25,836,303MJ x $\frac{1}{3.6MJ}$ 7,176,751kWh

| | 2005/06 (kWh pa) | 20% Reduction (kWh pa) | 2012/13 (kWh pa) |
|---|---|---|---|
| Electricity Consumption | 26,032,648 | 5,206,530 | 20,826,118 |
| Gas Consumption | 7,176,751 | 1,435,350 | 5,741,401 |
| | **33,209,399** | **6,641,880** | **26,567,519** |

**Water Consumption**

| | 2005/06 (kL pa) | 20% Reduction (kL pa) | 2012/13 (kL pa) |
|---|---|---|---|
| Water Consumption | **281,566** | **56,313** | **225,253** |

**$CO_{2e}$ Emissions**

Electricity Consumption 2005/06 26,032,648kWh x 1.07kg 27,855 Tonnes
Gas Consumption 2005/06 25,836,303MJ x 51.2kg/GJ 1,323 Tonnes

| | 2005/06 (Tonnes pa) | 23% Reduction (Tonnes pa) | 2012/13 (Tonnes pa) |
|---|---|---|---|
| Electricity $CO_2$ Emissions | 27,855 | 6,407 | 21,448 |
| Gas $CO_2$ Emissions | 1,323 | 304 | 1,019 |
| | **29,178** | **6,711** | **22,467** |

When calculating the reduction in greenhouse gas emissions the following National Greenhouse Accounts[9] factors shall be used:-

| | |
|---|---|
| Grid Electricity | 1.07kg $CO_{2e}$/kWh |
| Gas | 0.184kg $CO_{2e}$/kWh (51.2kg $CO_{2e}$/GJ) |
| Trigeneration Heating/Cooling | 0.0kg $CO_{2e}$/kWh (zero carbon waste heat) |

Trigeneration heating/cooling is the zero carbon waste heat from trigeneration electricity generation which applies to the following buildings:-

Victoria Park Pool
Ian Thorpe Aquatic Centre
Cook & Phillip Park Pool
Andrew Boy Charlton Pool
Prince Alfred Park
Town Hall Precinct – Town Hall House, Sydney Town Hall, Queen Victoria Building and Woolworths
Customs House

For reference purposes only, the greenhouse gas emissions factor for trigeneration electricity is 0.46kg/kWh based on the National Greenhouse Account factor for consumed natural gas and an electrical efficiency for the combined heat and power reciprocating engine of 40%. Trigeneration electricity will not be displaced by reductions in building electricity consumption since any reductions beyond what the building can consume will simply be exported into the local public wires distribution network. Therefore, all reductions in electricity consumption shall be based on the grid electricity National Greenhouse Account factor of 1.07kg $CO_{2e}$/kWh.

Technical Performance Criteria

| | |
|---|---|
| Reduction in $CO_2$ equivalent Emissions | in Tonnes pa |
| Reduction in Electricity Demand | in kW |
| Reduction in Electricity Consumption | in kWh pa |
| Reduction in Gas Consumption | in kWh pa |
| Reduction in Water Demand | in kLitres |
| Reduction in Water Consumption | in kLitres pa |

Financial Performance Criteria

| | |
|---|---|
| Simple Payback | in Years |
| Internal rate of Return | in % |

Energy and water prices that the City pays as from 1 July 2010 are:-

Electricity

| | Current[4] c/kWh) |
|---|---|
| Electricity: Peak[1] | 17.125 |

[9] Australian Government National Greenhouse Accounts (NGA) Factors July 2010 http://www.climatechange.gov.au/~/media/publications/greenhouse-acctg/national-greenhouse-factors-july-2010-pdf.pdf

| | |
|---|---|
| Shoulder[2] | 14.721 |
| Off Peak[3] | 6.192 |

Other Electricity Charges

DUOS Peak Capacity 14.505 cents per day per kVA[5]

Network Access $1.88 per meter per day
Meter Provision $675 per meter per annum

[1] Mon-Fri working days between 14:00-20:00 hours
[2] Mon-Fri working days between 07:00-14:00 hours and 20:00-22:00 hours
[3] At all other times
[4] Including network charges and ancillary costs but excluding City of Sydney GreenPower carbon offsets
[5] Capacity rate varies depending on the number of days in a month

Gas

| | Current c/MJ |
|---|---|
| Gas | 1.39744 |

Other Gas Charges

| | | |
|---|---|---|
| Supply Fee | 0 – 1TJ` | 61.15c/day |
| | 1 – 10TJ | 61.85c/day |

Water

| | $/kLitres |
|---|---|
| Water | 1.8700 |
| Sewer | 1.4230 |

Other Water Charges

| | |
|---|---|
| Water Service | $39.66 per quarter |
| Sewerage Service | $152.67 per quarter |

The key output performance specification criteria shall be entered in Part 23 – Volume 1.

## 2.16 Maintenance of Existing Environmental Conditions

Any energy and water efficiency works carried out under this contract shall maintain the existing environmental conditions of the buildings, including internal temperatures, air change rates, illumination levels, etc. All energy and water efficiency works installed under this contract shall also comply with the appropriate Regulations, Australian Standards and Codes of Practice.

## 2.17 Energy Savings Scheme

Any energy efficiency works carried out under this contract that are eligible for Energy Saving Certificates and related financial payments from electricity retailers

or Scheme Participants under the New South Wales Government's Energy Savings Scheme shall be vested in and paid to, either directly or indirectly, the City. The Contractor or their sub-contractors shall be or become Accredited Certificate Providers to enable Energy Savings Certificates to be claimed by the Contractor on behalf of the City.

## 2.18 Utility Supply Details

The Contractor shall liaise and give all necessary notices to the electricity, gas and water statutory authorities, where necessary.

The Contractor shall also apply for and/or obtain any grants or payments from the statutory authorities for reduced demand and any rebates or reductions in electricity maximum demand or available capacity charges and any reductions in any water meter sizing and sewerage charges brought about by reductions in water demand and increased non return to sewer.

The Contractor shall give a minimum of two weeks notice to the Superintendant of any service required to be disconnected. No service shall be disconnected from the supply without the Superintendant or the Superintendant's representative being present.

The Contractor shall allow in the tender for all 'out of normal hours' working associated with this element of the work.

The Contractor shall liaise with the electricity, gas and water statutory authorities and give all necessary notices to the electricity, gas and water statutory authorities for any disconnections, connections or other work requiring their involvement.

## 2.19 Maintenance and Operating Instructions and Training

On completion of the works, the Contractor shall provide four copies each of the record drawings, log-book and maintenance and operating manuals. The manuals shall be comprehensive and specific to the systems actually installed.

The Contractor shall submit to the Superintendant for approval two draft copies each of the record drawings, log-book and maintenance and operating manuals before the final copies are provided.

Also, on completion of the works immediately following the testing and commissioning of the system the Contractor shall arrange and present a teach-in/seminar for nominated staff of the systems in operation. The teach-in/seminar shall comprise two sessions, as appropriate (any manufacturer's training course and on-site training) which shall include a full demonstration of the system installed and the provision of a suitable number of documented notes for the teach-in/seminar. Any faults/alarm conditions shall also be simulated using special equipment, if necessary, to encompass the full range of readouts that are likely to be encountered.

The Contractor shall submit to the Superintendant for approval two copies each of the prospectus and the documented notes together with the detailed arrangements/proposals two weeks before the teach-in/seminar is carried out.

## 2.20 Operation and Maintenance, Guarantees and Servicing/ Commissioning (After Completion)

The City has an existing facilities management contract for all of its buildings. The Contractor shall submit guarantees, warranties, commissioning certificates and details of the operation and maintenance requirements of the energy and water efficiency retrofits installed by the Contractor to the Superintendant for submission to the City Facilities Management Contractor. See also Clause – Verification, Commissioning Data and Tests of Installation.

Maintenance responsibility for the energy and water efficiency retrofits installed shall be transferred to the existing facilities management or maintenance contracts for building services from the date of practical completion certificate except that the Contractor will still be responsible for remedying defects and omissions under the contract.

The Contractor shall provide a maintenance log book for each energy and water efficiency retrofit installed which shall be kept on each site to record engineering actions and for the subsequent operation and maintenance element of the contract.

The Contractor shall be responsible for restoring energy supplies where breaks are caused due to a fault within any of the energy and water efficiency retrofit installed. The repair of all other faults is excluded from this contract.

## 2.21 Green Infrastructure Plan

The Green Infrastructure Plan, comprising a city-wide trigeneration, water recycling and automated waste systems utilising the same infrastructure routes and trenches and co-located with the trigeneration stations will be implemented under over contracts over a period of time to 2030.

Due allowance shall be made by the Contractor for any energy and water efficiency retrofit installation that impacts or would impact on any element of the Green Infrastructure Plan.

## 2.22 Building Code of Australia, Development Approval and Other Approvals

The Contractor shall apply for any development application and Building Code approval required for any element of this project for their design. The works shall be designed and constructed to comply with the Building Code of Australia 2009 together with any amendments in force at the time that plans are deposited (i.e. application made) for a Building Code application, relevant Codes of Practice and Australian or International Standards and the Contractor is to liaise with the local Fire Officer to ensure that the design conforms with any relevant fire and other regulations.

The Contractor shall obtain any Statutory Undertakings consents, approvals, licences, waivers and the like at the earliest possible date and provide the City with such consents.

The Contractor shall return with their tender details of the design life for each primary element of their design.

No recognised deleterious materials shall be used on this contract. Materials are to be approved by the Australian Standards Kitemark System and/or have a current Australian Board of Agrement' Certificate for approval of their use in the relevant content. All materials and finishes specifically described in this document are to be presented to the City in sample forms for approval prior to ordering for the works. All proprietary products and materials are to be laid or fixed strictly in accordance with the manufacturer's recommendations.

It should be noted that it is the City's policy to make facilities accessible to disabled users.

The Contractor shall apply for detailed planning approval required for any element of their design not already covered under the existing planning approval. Any application will be considered by the City's Planning Committee.

The Contractor shall seek advice from and allow for any necessary liaison work, etc. with Development Control and Building Control Personnel, including any necessary out-of-hours working.

## 2.23 Energy and Water Efficiency and Environmental Requirements

The City is committed to reduce energy and water consumption and pollution in all its forms and the Contractor shall comply with the City's energy and water efficiency policies.

The Contractor shall design this project in such a way as to minimise the consumption of energy and water with the least detrimental effect on the environment whilst at the same time maximising the reduction of greenhouse gas emissions.

The works shall be designed and constructed to comply with the Building Code of Australia 2009. The Contractor shall also submit details and costings of any energy efficiency measures over and above the minimum Building Code of Australia requirements. The Contractor shall also apply for any applicable federal or state grants eligible for this project.

The City reserves the right to implement trigeneration or renewable energy or other energy and water efficiency works or retrofit projects on its own property portfolio. The Contractor will be consulted on any proposed trigeneration, renewable energy or other energy and water efficiency works or retrofits and due allowance taken into account on any technical or financial impact on the Contractor's output performance specification criteria and energy/water performance guarantees, as appropriate.

## 2.24 Noise Conditions and Survey

The noise level of equipment shall be less than the noise level specified by the City's Environmental Health Officer at the specified locations.

On completion of the works the Contractor shall carry out a full noise survey in the presence of the City's Environmental Health Officer and the Superintendant or their representatives to determine compliance with the planning approval conditions and this Specification. Tabulated results shall be submitted to the Superintendant and

any exceeded noise limits rectified and re-tested again in accordance with the original noise survey.

## 2.25 CFC Phase Out

Under the Montreal Protocol and the Ozone protection and Synthetic Greenhouse Gas Management Act 1989 the production of CFC's and Halons ceased on 1 January 1996 and HCFC's are due to cease by 2016.

Whenever plant is being commissioned, serviced or replaced, it is essential that the Contractor recovers the refrigerant or halons. The Contractor shall not vent or allow the escape of CFC's/HCFC's into the atmosphere for any reason. Failure to comply with this requirement will result in a prosecution under the Act. It is a legal requirement to recover all CFC/HCFC refrigerants and Halons for direct re-use, recycling or reclaiming.

All air conditioning equipment must be of the non-CFC/HCFC type. HFC refrigerant systems shall also not be used.

All fire extinguishers must be of the non-Halon type unless otherwise agreed with the Superintendant.

All redundant equipment containing CFC's/HCFC's and Halons must be disposed of at an approved site.

## 2.26 Quality Assurance

The Contractor or their Sub-Contractors are not required to be or become a Quality Assured company for the maintenance element of the contract but any quality assurance shall comply with the Australian Quality Assurance Standard.

## 2.27 Noise, Nuisance, Pollution and Interference

The Contractor shall take steps to control any noise, nuisance, pollution or interference during the execution of the works in accordance with the relevant statutory regulations.

The Contractor shall also examine any hazardous substances on site at suitable intervals and shall keep a record of the examinations for a minimum period of 5 years in accordance with the National Model Regulations for the Control of Workplace Hazardous Substances Regulations 1994.

Any equipment or apparatus specified by the Contractor shall not interfere with the reception of radio and television programmes and adequate suppression of interference shall be made to prevent the equipment/apparatus causing interference beyond the limits specified in BS800 and in the recommendations of the International Special Committee of Radio Interference (CISPR).

In addition, any equipment or apparatus specified by the Contractor shall also comply with the Australian EMC Compliance Arrangements on Electromagnetic Compatibility (EMC).

## 2.28 Spares

The undermentioned spares for which a signed receipt must be obtained from the Superintendant's representative on site shall be provided under this contract:-

- Fuses
- Three fuses of each rating and type
- Keys

As specified in appropriate clauses, each with an indelible and durable name tag describing the function of the key. Six keys for each type of lock required. A common Key System shall be used.

## 2.29 Access to Site

All operatives shall use such entrances and keep to such routes and stairways as may be directed.

The Contractor shall make the appropriate arrangements with the Superintendent for access and the exact entrance into the buildings for their operatives. All employees and sub-contractors of the Contractor shall carry means of identification and a list of personnel on site shall be left with the buildings Reception, for the appropriate site, for security and fire evacuation purposes.

The parking of vehicles by the Contractor and their employees or sub-contractors will not be permitted in the parks other than in the designated car park spaces. Materials and plant can be off-loaded from the hard surface paths and driveways, but the Contractor's vehicles must be moved immediately the materials/plant has been off-loaded. Prior arrangement for off-loading must be made with the Superintendant.

## 2.30 Noise and Conduct

The Contractor's attention is drawn to the fact that the works will be carried out in the parks and buildings used by the general public and staff as well as residents in adjacent residential properties.

Noise and disturbance to the general public, staff and residents shall be kept to a minimum and the consuming of food and drink, smoking and the use of transistor radios, etc., will not be permitted. It should be noted that the parks and the buildings may be used by the public during the hours of darkness.

The facilities and services of the parks and buildings when in use by the general public and staff are to be maintained at all times except for those areas specifically agreed and programmed for work to be undertaken in. If an employee of the Contractor causes any facility or service in the parks or buildings in use by the general public and staff to be unexpectedly and/or unnecessarily to be shut down the Contractor's account will be debited for the cost incurred to the City due to loss of income, reimbursements, inconvenience, etc.

The Contractor will be expected to carefully select employees for use on this Contract. The Superintendant reserves the right to take action in removing any

employee from site should any employee in the opinion of the Superintendant misconduct themselves.

## 2.31 Use of Facilities

The Contractor may use public restaurants and lavatory facilities during the period of the contract only with the agreement of the Managers of the buildings. All employees and sub-contractors shall be required to remove dirty overalls or clothing prior to using any of the facilities.

## 2.32 Interim Valuations of Work Executed

For the purpose of assessing interim payment of works done the value of works executed shall where possible be assessed in accordance with the following apportionment of the amount included in the respect items in the tender.

(a) Energy and water efficiency installations:

| | |
|---|---|
| Supply and Delivery to Site | 20% |
| Erection/Installation | 30% |
| Connection | 30% |
| Testing and Commissioning | 20% |

(b) Sections of the Installation comprising pipework or armoured cables including associated equipment:

| | |
|---|---|
| Installation | 80% |
| Connection | 20% |

(c) Installation comprising conductors drawn into conduit/trunking:

| | |
|---|---|
| Conduit Installation | 50% |
| Cable Installation | 30% |
| Accessories | 20% |

The percentage apportionment of any works not specified above shall be determined by the Superintendant.

Interim valuation for unfixed materials on site or major items of plant stored at the manufacturer's works may be paid up to a maximum of 80% of the estimated value of such materials/plant subject to the absolute discretion of the Superintendant.

Valuations for any installation shall not qualify for greater than 95% unless the relative test, completion and inspection certificates, circuit lists, maintenance manuals and record drawings, as applicable, have been submitted to and accepted by the Superintendant.

## 2.33 Verification, Commissioning Data and Tests of Installation

For the purposes of this Specification the Verifier shall be the Contractor or his/her duly authorised representative.

The Contractor shall be responsible for all commissioning and verifying that the design and installation has been carried out in accordance with the

Superintendant's Specification and the agreed Measurement and Verification Plan as well as meeting all the requirements of Clause - Regulations, Australian Standards and Codes of Practice – Volume 2. Should the Contractor at any time have any reason to believe that any part of the design or installation does not meet those requirements the Superintendant must be notified immediately.

The Superintendant reserves the right to inspect equipment and to witness tests at the manufacturer's works and to receive manufacturer's test certificates/reports on all equipment prior to despatch to site but this does not relieve the Contractor of responsibility for ensuring that the equipment complies with the requirements of the Specification.

Prior to and again on completion of the works, the installation shall be inspected and tested by the Contractor in accordance with the relevant clauses of this Specification and the appropriate Regulations. The Contractor shall provide energy generation, consumption and commissioning data of design conditions measured in the presence of the Superintendant, and submit the data, together with the test, completion and inspection certificates for the electrical installation called for in the AS/NZS 3000 Wiring Rules 2007, to the Superintendant immediately upon the completion of the works. The data and certificates shall be duly signed by the Contractor or his/her authorised representative. Reductions in energy and water consumption, energy generation and commissioning data shall be countersigned by one of the City's Engineers or other authorised representative. Independent verification of the reductions will be undertaken in accordance with the Contract, and the Contractor’s obligations under the Contract are not released until the independent verification confirms that the reductions have been met.

The Contractor shall provide all instruments and labour for the commissioning and tests and make due allowance for the out-of-hours working required for the commissioning and tests.

Mimic diagrams, graphics, pictorials, etc., shall be carried out by the Contractor to the requirements of this Specification and to the satisfaction of the Superintendant who shall approve all graphics, pictorials, legends, etc.

All test instruments used in the commissioning and testing of the installation shall have been calibrated by the manufacturer, or a recognised testing specialist, within a period of twelve months prior to the commissioning/testing carried out. The manufacturer, type and serial number or Contractor's identification number of each instrument shall be recorded in the data/certificate.

## 2.34 Regulations, Australian Standards and Codes of Practice

Full compliance is required with the following:-

(i) Current Australian or International Standards and Codes of Practice

(ii) AS/NZS 3000 Wiring Rules 2007

(iii) Building Code of Australia 2009

(iv) NSW Occupation Health and Safety Act 2000

(v) Electrical Safety (Equipment) Regulations 2009

(vi) Fire Precautions Act 1971

(vii) National Model Regulations for the Control of Workplace Hazardous Substances Regulations 1994

(viii) Occupational Health, Safety and Welfare Regulations 1995

(ix) CIBSE Guide 2007

(x) CIBSE TM16 Fire Precautions 1998

(xi) CIBSE TM17 Maintenance Management for Building Services 1994

## 2.35 List of Drawings

The Contractor shall submit design drawings with their tender.

See also Drawings – Volume 3.

## 2.36 Appendices

| | |
|---|---|
| Annexure 1 | Historical Electricity Consumption |
| Annexure 2 | Historical Gas Consumption |
| Annexure 3 | Historical Water Consumption |
| Annexure 4 | City of Sydney Property Listing |
| Annexure 5 | Maps of City of Sydney Property Listing |
| Annexure 6 | Electricity Time of Use, Maximum Demand, Half-Hourly Meter Interval Data and Maps of City of Sydney Property Listing |
| Annexure 7 | Existing Primary Plant for Major Buildings |
| Annexure 8 | Photovoltaic Systems – Primary and Secondary List of Buildings |
| Annexure 9 | Energy and Water Efficiency Retrofits Previously Installed |
| Annexure 10 | Details of Proposed Energy and Water Efficiency Retrofit Projects |

## 2.37 Computer Aided Design Installation Diagrams and Record Drawings

All building drawings, installation diagrams, schematic wiring diagrams, manufacturer's drawings and record drawings shall be completed in Computer Aided Design (CAD) format for loading onto the City's AUTOCAD System by the Contractor.

All record drawings are to be A1 format (folded), colours to be advised.

The CAD method of production of drawings is subject to the approval of the Superintendant for suitability for loading onto the City's system.

# VOLUME 3
# DRAWINGS

All available relevant drawings are provided on the CD in the Drawings file.

# VOLUME 4
# GENERAL CONDITIONS OF CONTRACT

# VOLUME 5
# APPENDICES

## Annexure 1- Historical Electricity Consumption

The City's two major street lighting accounts (not listed below) consume 13,502MWh annually.

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | *current %* | *progressive total* |
|---|---|---|---|---|---|---|---|---|
| | **Electricity (kWh)** | | | | | | | |
| 1 | Town Hall House (House) | 6,047,213 | 5,967,016 | 5,064,153 | 4,640,286 | 4,212,059 | *19.1%* | 19.1% |
| 2 | Cook & Phillip Park Pool | 2,292,756 | 2,189,016 | 2,285,661 | 2,301,573 | 2,111,543 | *9.6%* | 28.6% |
| 3 | Ian Thorpe Aquatic Centre – Mech Pool | | 143,274 | 1,937,796 | 1,930,016 | 1,837,473 | *8.3%* | 37.0% |
| 4 | Customs House | 1,088,999 | 1,038,186 | 1,056,519 | 1,062,658 | 1,147,139 | *5.2%* | 42.2% |
| 5 | Victoria Park Pool | 1,107,137 | 1,197,455 | 1,073,003 | 1,048,460 | 1,102,481 | *5.0%* | 47.2% |
| 6 | Sydney Town Hall | 1,148,423 | 1,260,219 | 885,178 | 365,139 | 1,011,812 | *4.6%* | 51.7% |
| 7 | Epsom Road Depot | 1,107,605 | 914,172 | 788,465 | 823,266 | 778,919 | *3.5%* | 55.3% |
| 8 | 307 Pitt Street | 1,269,199 | 1,528,003 | 1,313,811 | 781,732 | 671,325 | *3.0%* | 58.3% |
| 9 | Ian Thorpe Aquatic Centre - AC/House | | 4,525 | 551,548 | 584,730 | 563,874 | *2.6%* | 60.9% |
| 10 | Bay Street Depot - II | 607,694 | 625,773 | 545,612 | 529,830 | 558,957 | *2.5%* | 63.4% |
| 11 | Woolworths | 524,882 | 611,402 | 402,130 | 561,377 | 450,713 | *2.0%* | 65.4% |
| 12 | CCTV Town Hall House | 77,712 | 141,808 | 301,960 | 374,295 | 436,697 | *2.0%* | 67.4% |
| 13 | Goulburn St Parking | 437,648 | 437,585 | 449,790 | 440,754 | 421,260 | *1.9%* | 69.3% |
| 14 | Royal South Sydney Hosp (former) | 292,188 | 270,409 | 350,538 | 371,696 | 345,288 | *1.6%* | 70.9% |
| 15 | Kings Cross Neighbourhood Service | 287,463 | 304,910 | 343,854 | 373,948 | 325,959 | *1.5%* | 72.4% |
| 16 | Andrew Boy Charlton Pool | 309,044 | 297,773 | 331,243 | 275,831 | 299,617 | *1.4%* | 73.7% |
| 17 | Surry Hills Community Centre | | | | 35,620 | 292,316 | *1.3%* | 75.0% |
| 18 | Kings Cross Car Park | 277,459 | 277,458 | 278,220 | 277,639 | 279,301 | *1.3%* | 76.3% |
| 19 | Railway Square Interchange | 257,706 | 260,574 | 261,644 | 263,229 | 252,777 | *1.1%* | 77.5% |
| 20 | King George V Recreation Centre | 282,052 | 250,162 | 226,742 | 267,413 | 232,550 | *1.1%* | 78.5% |
| 21 | Rex Community Centre | 222,162 | 232,257 | 292,831 | 253,329 | 216,769 | *1.0%* | 79.5% |
| 22 | Bourke St Depot (Plunkett St) | 162,788 | 181,578 | 163,708 | 164,792 | 168,118 | *0.8%* | 80.3% |
| 23 | Redfern Community Centre | 245,688 | 225,573 | 173,031 | 174,638 | 167,068 | *0.8%* | 81.0% |
| 24 | Paddington Town Hall | 216,614 | 226,681 | 195,893 | 145,439 | 162,432 | *0.7%* | 81.7% |
| 25 | Haymarket Library | 193,872 | 165,481 | 149,169 | 157,419 | 155,081 | *0.7%* | 82.4% |
| 26 | L2 Customs House (Library) | 227,457 | 167,150 | 146,240 | 141,593 | 151,058 | *0.7%* | 83.1% |
| 27 | Rosebery Depot | | | | 200,373 | 135,045 | *0.6%* | 83.7% |
| 28 | Ultimo CC - House Services | 212,811 | 234,283 | 262,976 | 153,137 | 129,384 | *0.6%* | 84.3% |
| 29 | Glebe Library | 110,915 | 127,984 | 139,480 | 133,683 | 122,921 | *0.6%* | 84.9% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 30 Pyrmont Community Centre | 97,127 | 97,260 | 97,414 | 120,260 | 122,877 | *0.6%* | 85.4% |
| 31 Meals on Wheels Centre | 108,344 | 97,634 | 104,358 | 104,445 | 104,154 | *0.5%* | 85.9% |
| 32 Floor 2, 307 Pitt St, Sydney | | 10,918 | 74,584 | 89,191 | 95,581 | *0.4%* | 86.3% |
| 33 L12 Town Hall House | 89,392 | 93,099 | 108,604 | 107,908 | 95,129 | *0.4%* | 86.8% |
| 34 101 Williams Street Holding 1 | 163,086 | 188,839 | 157,991 | 109,897 | 88,316 | *0.4%* | 87.2% |
| 35 Redfern Town Hall | 114,385 | 109,962 | 95,425 | 82,982 | 87,944 | *0.4%* | 87.6% |
| 36 L13 Town Hall House | 152,822 | 162,386 | 92,901 | 83,056 | 82,620 | *0.4%* | 88.0% |
| 37 Waterloo Library | 85,514 | 81,582 | 78,776 | 81,441 | 76,739 | *0.3%* | 88.3% |
| 38 Nursery and Depot, Sydney Park | 56,589 | 82,700 | 82,675 | 79,303 | 75,849 | *0.3%* | 88.6% |
| 39 56 Oxford Street Holding 1 | 88,921 | 82,205 | 78,003 | 79,327 | 73,871 | *0.3%* | 89.0% |
| 40 L21 Town Hall House | | | | 61,759 | 72,812 | *0.3%* | 89.3% |
| 41 Ultimo CC - Rec Group | 66,912 | 70,441 | 72,061 | 68,556 | 70,688 | *0.3%* | 89.6% |
| 42 Kings Cross N.Centre - Library | 64,589 | 69,607 | 68,866 | 68,834 | 68,794 | *0.3%* | 89.9% |
| 43 Ultimo CC - Level 2 Library | 100,402 | 101,921 | 82,310 | 73,554 | 68,668 | *0.3%* | 90.2% |
| 44 Sydney Park Pavilion | 82,620 | 46,788 | 68,168 | 67,352 | 67,991 | *0.3%* | 90.6% |
| 45 Juanita Nielsen Community Centre | 51,516 | 55,981 | 59,649 | 59,722 | 66,346 | *0.3%* | 90.9% |
| 46 L23 Town Hall House | 110,946 | 121,655 | 105,884 | 92,779 | 62,074 | *0.3%* | 91.1% |
| 47 Rex Centre Main SW | 70,236 | 59,204 | 65,222 | 54,541 | 61,490 | *0.3%* | 91.4% |
| 48 Newtown Library | 59,880 | 49,708 | 52,965 | 55,328 | 59,817 | *0.3%* | 91.7% |
| 49 Abraham Mott Hall | 69,412 | 70,549 | 70,925 | 71,232 | 59,755 | *0.3%* | 92.0% |
| 50 Customs House L3 (Air Conditioning) | 53,593 | 40,801 | 39,990 | 50,451 | 55,705 | *0.3%* | 92.2% |
| 51 Corporation Building | 61,108 | 33,152 | 38,989 | 53,901 | 55,205 | *0.3%* | 92.5% |
| 52 Customs House-Opera House tenant | 9,927 | 57,610 | 114,924 | 125,405 | 54,423 | *0.2%* | 92.7% |
| 53 307 Pitt St, Sydney | | 4,013 | 44,569 | 52,437 | 51,343 | *0.2%* | 92.9% |
| 54 Recycling Depot Amenities | 33,615 | 53,078 | 42,888 | 48,630 | 50,190 | *0.2%* | 93.2% |
| 55 State Emergency Service Facility | 54,264 | 26,997 | 77,696 | 52,986 | 50,151 | *0.2%* | 93.4% |
| 56 L22 Town Hall House | 112,624 | 119,480 | 114,931 | 91,546 | 49,505 | *0.2%* | 93.6% |
| 57 Ultimo Community Centre | 26,175 | 50,391 | 63,220 | 58,033 | 48,567 | *0.2%* | 93.8% |
| 58 L14 Town Hall House | 56,619 | 75,758 | 91,512 | 92,270 | 48,026 | *0.2%* | 94.1% |
| 59 Alexandria Child Care Centre | 64,254 | 73,552 | 80,754 | 83,379 | 47,170 | *0.2%* | 94.3% |
| 60 St Helens Community Centre | 58,861 | 58,262 | 63,799 | 64,703 | 45,968 | *0.2%* | 94.5% |
| 61 Ron Williams Activity Centre | 50,372 | 44,240 | 40,891 | 42,721 | 44,379 | *0.2%* | 94.7% |
| 62 82 Oxford St. Air Conditioning -DB2 | 44,347 | 42,956 | 44,777 | 43,418 | 43,341 | *0.2%* | 94.9% |
| 63 Boys Brigade | 38,576 | 37,388 | 39,016 | 40,444 | 42,219 | *0.2%* | 95.1% |
| 64 L4 Town Hall House - Suite 2 | 101,162 | 107,322 | 94,718 | 76,349 | 41,550 | *0.2%* | 95.3% |
| 65 L11 Town Hall House | 14,965 | 16,849 | 19,097 | 19,667 | 41,094 | *0.2%* | 95.4% |
| 66 58 Oxford St, Darlinghurst | 67,977 | 67,224 | 39,914 | 21,277 | 40,395 | *0.2%* | 95.6% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 Floor 1 West Customs House | 52,598 | 38,033 | 46,258 | 36,391 | 39,332 | *0.2%* | 95.8% |
| 68 Unit Rear RHS L4, 307 Pitt St, S | 35,347 | 42,831 | 41,733 | 41,400 | 38,709 | *0.2%* | 96.0% |
| 69 Redfern Depot (Marion Street) | 36,006 | 37,568 | 38,296 | 43,099 | 37,616 | *0.2%* | 96.1% |
| 70 Alexandria Depot | 31,917 | 32,594 | 32,803 | 34,647 | 37,459 | *0.2%* | 96.3% |
| 71 A/Conditioning, Basement & Ground, 72 O | 100,032 | 92,280 | 66,183 | 23,723 | 37,049 | *0.2%* | 96.5% |
| 72 Alexandria Town Hall & Depot | 49,695 | 46,667 | 42,620 | 46,080 | 36,984 | *0.2%* | 96.7% |
| 73 Redfern Occasional Care Centre | 23,038 | 34,544 | 37,740 | 35,484 | 36,297 | *0.2%* | 96.8% |
| 74 King Street Retail Holding | 29,759 | 37,862 | 34,598 | 32,470 | 33,094 | *0.1%* | 97.0% |
| 75 Glebe Town Hall | 38,939 | 38,495 | 37,271 | 31,818 | 32,996 | *0.1%* | 97.1% |
| 76 Floor 10, 307 Pitt Street, Sydney | 33,682 | 35,272 | 33,634 | 36,414 | 31,949 | *0.1%* | 97.3% |
| 77 Erskineville Town Hall | 31,555 | 29,700 | 24,942 | 16,489 | 30,440 | *0.1%* | 97.4% |
| 78 Paddington Town Hall - Library | 25,357 | 23,593 | 24,308 | 26,473 | 29,509 | *0.1%* | 97.5% |
| 79 Turruwul Park Depot | 18,286 | 22,929 | 23,389 | 26,557 | 29,290 | *0.1%* | 97.7% |
| 80 Ultimo Community Centre (closed) | 41,074 | 33,584 | 31,252 | 29,044 | 28,895 | *0.1%* | 97.8% |
| 81 Ground, 56-66 Oxford St, Darling | 26,666 | 25,503 | 25,923 | 26,089 | 28,448 | *0.1%* | 97.9% |
| 82 Park House | 24,560 | 31,040 | 47,481 | 48,480 | 27,094 | *0.1%* | 98.0% |
| 83 Alexandria Aged Health Centre | 28,205 | 30,605 | 28,432 | 28,151 | 26,241 | *0.1%* | 98.2% |
| 84 City Recital Hall | 19,597 | 32,435 | 32,846 | 28,895 | 26,147 | *0.1%* | 98.3% |
| 85 Mary McDonald Activity Centre | 28,970 | 30,691 | 26,903 | 27,164 | 24,673 | *0.1%* | 98.4% |
| 86 Pine Street (Children's Playground) | 15,254 | 23,367 | 24,530 | 28,830 | 23,705 | *0.1%* | 98.5% |
| 87 Ultimo CC - Child Care | 81,890 | 84,301 | 75,977 | 71,182 | 22,847 | *0.1%* | 98.6% |
| 88 Gordon Ibbett Activity Centre | 21,459 | 21,891 | 19,882 | 22,208 | 22,567 | *0.1%* | 98.7% |
| 89 Kings Cross Police Station | 22,089 | 27,561 | 23,013 | 20,841 | 22,204 | *0.1%* | 98.8% |
| 90 Pine Street Creative Arts Centre | 42,552 | 30,102 | 25,671 | 25,914 | 20,638 | *0.1%* | 98.9% |
| 91 Redfern Neighbourhood Service Centre | | | 6,034 | 16,139 | 16,826 | *0.1%* | 99.0% |
| 92 Hilda Booler Child Care Centre | 13,110 | 13,549 | 14,920 | 15,611 | 16,696 | *0.1%* | 99.1% |
| 93 Stoneyard and Depot | 17,905 | 7,676 | 8,908 | 10,904 | 14,956 | *0.1%* | 99.1% |
| 94 Jubilee Park East Public Toilets | 11,697 | 11,540 | 13,134 | 15,248 | 14,938 | *0.1%* | 99.2% |
| 95 Joe Sargent Community Centre | 7,870 | 12,892 | 13,073 | 14,323 | 14,927 | *0.1%* | 99.3% |
| 96 Renwick St Baby Health Centre Alexandria | 15,618 | 13,910 | 14,226 | 14,657 | 14,727 | *0.1%* | 99.3% |
| 97 McKee Street Child Care Centre | 11,570 | 11,611 | 56,438 | 22,068 | 12,019 | *0.1%* | 99.4% |
| 98 Brown Street Community Hall | 11,809 | 13,158 | 15,341 | 13,241 | 11,911 | *0.1%* | 99.4% |
| 99 Sydney Park Community Room | 11,334 | 9,313 | 10,094 | 8,492 | 11,462 | *0.1%* | 99.5% |
| 100 Waterloo Depot (Bourke Street) | 7,784 | 31,887 | 35,281 | 11,910 | 10,156 | *0.0%* | 99.5% |
| 101 L4, Town Hall House | 13,704 | 14,474 | 12,962 | 6,107 | 8,784 | *0.0%* | 99.6% |
| 102 120 Oxford Street, Darlinghurst | 14,946 | 11,497 | 6,460 | 8,462 | 8,469 | *0.0%* | 99.6% |
| 103 Maybanke Pre-School | 12,323 | 15,038 | 13,011 | 12,983 | 7,548 | *0.0%* | 99.6% |
| 104 Cumberland Street Depot | 6,776 | 7,851 | 9,916 | 8,280 | 7,233 | *0.0%* | 99.7% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 105 Surry Hills Depot (Riley Street) | 324,793 | 9,292 | 5,977 | 4,528 | 6,905 | *0.0%* | 99.7% |
| 106 Phillip Park Community & Children's | | | 1,384 | 10,707 | 6,251 | *0.0%* | 99.7% |
| 107 Wattle Street Lift | 4,799 | 5,960 | 4,850 | 5,214 | 5,729 | *0.0%* | 99.8% |
| 108 Town Hall House (old L11 meter) | | 3,718 | 8,552 | 14,964 | 5,652 | *0.0%* | 99.8% |
| 109 Millers Point Community Centre | 5,709 | 5,334 | 5,450 | 5,643 | 5,628 | *0.0%* | 99.8% |
| 110 Huntley St Industrial Complex | 5,722 | 5,588 | 2,141 | 2,422 | 5,142 | *0.0%* | 99.8% |
| 111 Booler Community Centre | 1,447 | 4,119 | 5,129 | 4,573 | 4,931 | *0.0%* | 99.9% |
| 112 Beaconsfield Community Centre | 3,710 | 4,480 | 4,877 | 5,259 | 4,879 | *0.0%* | 99.9% |
| 113 Glebe Community Centre | | | 3,172 | 6,189 | 4,757 | *0.0%* | 99.9% |
| 114 1 George St Toilet Sydney | 3,407 | 3,391 | 3,375 | 3,635 | 3,597 | *0.0%* | 99.9% |
| 115 Longdown Street Depot | 5,775 | 8,924 | 5,477 | 3,837 | 3,472 | *0.0%* | 99.9% |
| 116 94 Oxford Street | 20,598 | 26,667 | 12,432 | 12,732 | 2,881 | *0.0%* | 99.9% |
| 117 Floor 1, 112-114 Oxford St, Darlinghurst | 11,017 | 11,328 | 50,548 | 2,286 | 2,777 | *0.0%* | 100.0% |
| 118 Doody Street Industrial Complex | 5,259 | 4,184 | 4,845 | 4,439 | 2,206 | *0.0%* | 100.0% |
| 119 Oatley Road Depot | 5,084 | 5,248 | 6,640 | 4,396 | 2,025 | *0.0%* | 100.0% |
| 120 L2 Kings Cross Neighbourhood Ser | 6,369 | 4,524 | 8,002 | 3,968 | 1,736 | *0.0%* | 100.0% |
| 121 72 Oxford St Darlinghurst | 4,821 | 1,752 | 1,139 | 1,211 | 1,222 | *0.0%* | 100.0% |
| 122 113 Williams Street Holding 2 | 2,819 | 2,488 | 2,357 | 2,444 | 806 | *0.0%* | 100.0% |
| 123 Parking Meters 00.A | 338 | 338 | 341 | 341 | 341 | *0.0%* | 100.0% |
| 124 Victoria Park Public Toilets | 436 | 417 | 428 | 47 | 89 | *0.0%* | 100.0% |
| 125 Floor 13, 307 Pitt Street, Sydney | 1,633 | 723 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 126 50-58 Macleay St Potts Point | 4,296 | 2,676 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 127 Domain Parking Stn (lease expired) | 869,810 | 905,539 | 782,940 | 0 | 0 | *0.0%* | 100.0% |
| 128 Air Con Supply, DB2, 82 Oxford S | 5,827 | 6,942 | 10,550 | 0 | 0 | *0.0%* | 100.0% |
| 129 Ultimo Community Centre (tenant) | | | 4,900 | 8,534 | 0 | *0.0%* | 100.0% |
| 130 Roper Activity Club (closed) | 0 | 7,144 | 40,407 | 0 | 0 | *0.0%* | 100.0% |
| 131 Town Hall House | 0 | 0 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 132 Martin Place Stage & Service Rooms | 15,655 | 7,033 | 1,358 | 0 | 0 | *0.0%* | 100.0% |
| 133 82-106 Oxford Street | | 946 | 13,561 | 0 | 0 | *0.0%* | 100.0% |
| 134 Flat 4 113 William St Woolloomoo | 592 | 473 | 67 | 17 | 0 | *0.0%* | 100.0% |
| 135 Redfern Park Early Childhood Centre | 5,182 | 4,648 | 4,441 | 0 | 0 | *0.0%* | 100.0% |
| 136 Shop 1D, Customs House | 85,590 | 6,498 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 137 Rex-CC-NO DATA | 0 | 0 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 138 Shop 7, Rex Centre | 43,664 | 57,002 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 139 110 Oxford Holding 3 | 3,547 | 7,423 | 10 | 0 | 0 | *0.0%* | 100.0% |
| 140 Shop 9, Rex Centre | 10,442 | 13,581 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 141 Floor 4 West Customs House | 62,855 | 67,973 | 45,404 | 0 | 0 | *0.0%* | 100.0% |
| 142 Bay Street Depot | 778 | 778 | 781 | 780 | 0 | *0.0%* | 100.0% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 143 | CCTV Ac 03.A | 1,321 | 1,321 | 1,326 | 1,322 | 0 | *0.0%* | 100.0% |
| 144 | CCTV Ac 06.A | 4,201 | 4,201 | 4,214 | 4,202 | 0 | *0.0%* | 100.0% |
| 145 | Floor 4, East Customs House | 96,150 | 98,793 | 72,397 | 0 | 0 | *0.0%* | 100.0% |
| 146 | CCTV Corner George & Hickson | 419 | 419 | 422 | 421 | 0 | *0.0%* | 100.0% |
| 147 | 307 Pitt Street, Sydney | | | 16,499 | 5,628 | 0 | *0.0%* | 100.0% |
| 148 | Bay Street Depot - Main SW | 0 | 0 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 149 | 92 Oxford Street L2 | 666 | 880 | 353 | 2 | 0 | *0.0%* | 100.0% |
| 150 | CCTV Ac 05.A | 832 | 832 | 836 | 834 | 0 | *0.0%* | 100.0% |
| 151 | L19 Town Hall House | | | | 7,091 | 0 | *0.0%* | 100.0% |
| 152 | CCTV Ac 04.A | 1,321 | 1,321 | 1,326 | 1,322 | 0 | *0.0%* | 100.0% |
| 153 | CCTV Hyde Park | 3,150 | 3,150 | 3,161 | 3,153 | 0 | *0.0%* | 100.0% |
| 154 | Depot Joynton Avenue Zetland | 94,261 | 94,064 | 124,194 | 3,990 | 0 | *0.0%* | 100.0% |
| 155 | Lawson Square | 1,617,510 | 1,574,292 | 372,458 | 0 | 0 | *0.0%* | 100.0% |
| 156 | Macquarie Place Public Toilets | 399 | 399 | 402 | 401 | 0 | *0.0%* | 100.0% |
| 157 | Meals on Wheels - NO DATA | 0 | 0 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 158 | Sussex Street Public Toilets | 24,020 | 40,463 | 24,107 | 740 | 0 | *0.0%* | 100.0% |
| 159 | Prince Alfred Park Pool | 162,831 | 259,359 | 200,737 | 5,739 | 0 | *0.0%* | 100.0% |
| 160 | **Electricity (kWh) Sum** | **26,032,648** | **26,176,682** | **25,579,109** | **22,572,258** | **22,076,543** | *100.0%* | |

## Annexure 2 - Historical Gas Consumption

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | *current %* | *progressive total* |
|---|---|---|---|---|---|---|---|---|
| 1 | Ian Thorpe Aquatic Centre | | 943,257 | 4,973,971 | 10,532,738 | 9,940,187 | *40.8%* | 40.8% |
| 2 | Cook & Phillip Aquatic Park | 9,270,394 | 8,621,838 | 8,244,001 | 10,471,039 | 5,304,669 | *21.7%* | 62.5% |
| 3 | Woolworths | 2,748,904 | 2,482,934 | 1,549,330 | 2,350,534 | 3,049,514 | *12.5%* | 75.0% |
| 4 | Andrew Boy Charlton Pool | 2,824,428 | 4,921,590 | 3,134,224 | 3,417,873 | 2,849,996 | *11.7%* | 86.7% |
| 5 | Town Hall House | 6,367,570 | 5,267,645 | 4,952,349 | 2,466,031 | 2,391,156 | *9.8%* | 96.5% |
| 6 | Ultimo Community Centre | 555,638 | 533,759 | 511,951 | 588,121 | 567,348 | *2.3%* | 98.8% |
| 7 | Customs House | 162,459 | 166,401 | 210,876 | 219,300 | 174,008 | *0.7%* | 99.5% |
| 8 | Town Hall House (level 4) | 49,596 | 93,368 | 108,770 | 88,417 | 40,367 | *0.2%* | 99.7% |
| 9 | Victoria Park Pool | 3,092,852 | 396,969 | 1,232,989 | 677,690 | 27,293 | *0.1%* | 99.8% |
| 10 | St Helens Community Centre | 3,862 | 8,053 | 9,587 | 13,211 | 11,033 | *0.0%* | 99.9% |
| 11 | Rushcutters Bay Tennis Courts | 10,607 | 10,260 | 11,205 | 11,506 | 10,212 | *0.0%* | 99.9% |
| 12 | Paddington Town Hall | 4,501 | 8,535 | 4,113 | 5,021 | 5,506 | *0.0%* | 99.9% |
| 13 | Pine Street Creative Arts Centre | 2,826 | 4,154 | 4,679 | 5,803 | 4,743 | *0.0%* | 99.9% |
| 14 | Redfern Town Hall | 187 | 153 | 295 | 426 | 4,622 | *0.0%* | 100.0% |
| 15 | Waterloo Library | 5,127 | 5,174 | 5,222 | 5,351 | 4,509 | *0.0%* | 100.0% |
| 16 | Glebe Town Hall | 14,558 | 13,165 | 7,271 | 4,735 | 2,596 | *0.0%* | 100.0% |
| 17 | Ron Williams Activity Centre | 500 | 635 | 1,342 | 1,456 | 1,125 | *0.0%* | 100.0% |
| 18 | Beaconsfield Community Centre | 741 | 499 | 276 | 176 | 229 | *0.0%* | 100.0% |
| 19 | Erskineville Town Hall | 7,101 | 11,815 | 11,765 | 126 | 220 | *0.0%* | 100.0% |
| 20 | Surry Hills Community Centre | | | | 14 | 26 | *0.0%* | 100.0% |
| 21 | Community Health Service (zero) | 253,755 | 276,281 | 115,594 | 57 | 20 | *0.0%* | 100.0% |
| 22 | Community Health Complex | 0 | 0 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 23 | Lawson Square | 427,486 | 495,061 | 501,416 | 0 | 0 | *0.0%* | 100.0% |
| 24 | Millers Point Activity Centre | 3,470 | 2,438 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 25 | Glebe Library | 7,681 | 10,764 | 0 | 0 | 0 | *0.0%* | 100.0% |
| 26 | Bay Street Depot (Ultimo) | 812 | 0 | 3,295 | 2,119 | 0 | *0.0%* | 100.0% |
| 27 | Sydney Town Hall | 21,248 | 17,233 | 10,732 | 0 | 0 | *0.0%* | 100.0% |
| | **Gas (MJ) Total** | **25,836,303** | **24,291,983** | **25,605,252** | **30,861,743** | **24,389,379** | *100.0%* | |

**Annexure 3 – Historical Water Consumption**

(Note that some data for late 2010 not inputted and not finalised)

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 |
|---|---|---|---|---|---|
| 1 Ian Thorpe Aquatic Centre | 1,142 | 2,334 | 17,861 | 22,820 | 12,133 |
| 2 Woolworths | 13,339 | 9,954 | 9,462 | 10,208 | 10,838 |
| 3 Epsom Road Depot | 7,141 | 5,813 | 16,012 | 11,400 | 9,196 |
| 4 Customs House | 13,839 | 15,060 | 14,505 | 14,748 | 8,668 |
| 5 Town Hall House | 30,909 | 34,838 | 29,943 | 22,919 | 8,303 |
| 6 Oxford Street Holding 2 | 14,564 | 11,764 | 11,464 | 11,440 | 5,791 |
| 7 Cook & Phillip Pk Aquatic Centre | 42,171 | 34,003 | 21,500 | 18,919 | 5,745 |
| 8 Bay Street Depot | 10,770 | 6,211 | 7,627 | 7,101 | 4,474 |
| 9 Mower Workshop Depot | 884 | 509 | 360 | 2,570 | 4,086 |
| 10 SHOPPING CIRCLE MARTIN PL | 4,001 | 1,592 | 2,308 | 2,513 | 4,073 |
| 11 Nursery and Depot, Sydney Park | 4,455 | 5,216 | 7,086 | 8,224 | 3,930 |
| 12 307 Pitt Street Holding 1 | 5,743 | 8,449 | 9,116 | 8,668 | 3,558 |
| 13 Park House | 807 | 628 | 467 | 520 | 3,310 |
| 14 International Grammar School | 4,976 | 6,403 | 5,322 | 6,913 | 2,815 |
| 15 56 Oxford Street Holding 1 | 9,277 | 8,521 | 4,925 | 6,241 | 2,757 |
| 16 Ultimo Community Centre | 4,910 | 4,665 | 3,939 | 4,642 | 2,753 |
| 17 Sydney Town Hall | 11,485 | 9,286 | 8,559 | 9,380 | 2,730 |
| 18 110 Oxford Holding 3 | 3,042 | 3,689 | 2,794 | 3,814 | 2,344 |
| 19 Paddington Town Hall | 3,905 | 4,807 | 6,476 | 4,155 | 1,996 |
| 20 Surry Hills Community Centre | 299 | 145 | 116 | 354 | 1,867 |
| 21 King Street Retail Holding | 2,006 | 1,740 | 1,444 | 1,488 | 1,770 |
| 22 Andrew Boy Charlton Pool | 2,000 | 2,664 | 3,517 | 3,377 | 1,384 |
| 23 State Emergency Service Facility | 81 | 610 | 536 | 447 | 1,379 |
| 24 Recycling Depot Amenities | 2,267 | 559 | 469 | 1,601 | 1,266 |
| 25 Goulburn Street Parking Station | 983 | 988 | 477 | 507 | 1,233 |
| 26 Tabernacle 39 Burton St | 1,241 | 1,230 | 1,231 | 1,225 | 1,230 |
| 27 Phillip Park Community and Child | 1,033 | 1,402 | 965 | 1,103 | 1,119 |
| 28 Corporation Building | 627 | 288 | 808 | 1,668 | 1,072 |
| 29 101 WILLIAM ST WOOLLOOMOOLOO | 0 | 0 | 0 | 1 | 1,055 |
| 30 Juanita Nielsen Community Centre | 381 | 381 | 379 | 1,360 | 1,043 |
| 31 Rex Community Centre | 629 | 923 | 1,057 | 1,052 | 1,038 |
| 32 James Cahill Pre-School | 349 | 336 | 317 | 730 | 993 |
| 33 Alexandria Child Care Centre | 635 | 958 | 1,088 | 991 | 974 |
| 34 Longdown Street Depot | 542 | 358 | 464 | 539 | 955 |

| | | | | | |
|---|---|---|---|---|---|
| 35 St Helens Community Centre | 494 | 611 | 665 | 830 | 930 |
| 36 7 the Crescent | 783 | 1,038 | 1,179 | 1,498 | 924 |
| 37 Reginald Murphy Activity Club | 668 | 861 | 673 | 687 | 917 |
| 38 113 William Street | 160 | 0 | 0 | 1,259 | 826 |
| 39 Erskineville Town Hall | 1,148 | 1,211 | 1,061 | 797 | 818 |
| 40 Epsom Road Depot M02 | 277 | 1,121 | 1,193 | 3,372 | 781 |
| 41 Railway Square Interchange | 1,108 | 1,815 | 484 | 1,660 | 772 |
| 42 Pyrmont Community Centre | 951 | 1,054 | 1,346 | 1,848 | 751 |
| 43 Surry Hills Child Care Centre | 720 | 958 | 794 | 796 | 748 |
| 44 Redfern Town Hall | 998 | 772 | 683 | 488 | 694 |
| 45 King George V Recreation Centre | 4,491 | 4,485 | 2,064 | 1,496 | 647 |
| 46 Kings Cross Police Station | 1,207 | 1,399 | 3,006 | 2,630 | 626 |
| 47 Kings Cross Neighbourhood Service | 447 | 309 | 250 | 253 | 560 |
| 48 Roper Activity Club (closed) | 18 | 9 | 5 | 860 | 536 |
| 49 Royal South Sydney Hosp (former) | 6,701 | 10,979 | 9,836 | 1,560 | 512 |
| 50 McKee Street Child Care Centre | 651 | 635 | 618 | 777 | 502 |
| 51 197 Euston Road | 170 | 1,638 | 967 | 1,181 | 494 |
| 52 Bourke St Depot (Plunkett St) | 868 | 652 | 1,590 | 931 | 469 |
| 53 Abraham Mott Hall | 906 | 466 | 475 | 570 | 466 |
| 54 Glebe Library | 206 | 179 | 223 | 403 | 445 |
| 55 Alexandria Town Hall | 230 | 338 | 511 | 348 | 442 |
| 56 130 Jones Street | 595 | 582 | 1,043 | 695 | 413 |
| 57 Doody Street Industrial Complex | 882 | 1,065 | 1,452 | 772 | 413 |
| 58 Newtown Library | 482 | 688 | 438 | 506 | 409 |
| 59 Heffron Hall | 125 | 158 | 160 | 197 | 404 |
| 60 Ron Williams Activity Centre | 780 | 849 | 381 | 409 | 395 |
| 61 Redfern Occasional Care Centre | 182 | 307 | 380 | 340 | 394 |
| 62 Redfern Depot (Marion Street) | 1,460 | 4,300 | 843 | 939 | 337 |
| 63 Palmer Street Holding 1 | 497 | 609 | 669 | 453 | 336 |
| 64 53-57 Maddox St | 809 | 462 | 429 | 365 | 328 |
| 65 Glebe Town Hall | 497 | 560 | 707 | 490 | 322 |
| 66 Gordon Ibbett Activity Centre | 210 | 190 | 139 | 233 | 313 |
| 67 107 Redfern St | 1,561 | 1,987 | 665 | 169 | 291 |
| 68 Rosebery Child Care Centre | 649 | 559 | 506 | 486 | 266 |
| 69 John J Carroll Pre-School | 253 | 168 | 169 | 206 | 257 |
| 70 Cliff Noble Activity Centre | 168 | 371 | 263 | 205 | 213 |
| 71 Waterloo Library | 176 | 210 | 341 | 415 | 188 |
| 72 Rosebery Community Centre | 66 | 144 | 98 | 156 | 184 |

| | | | | | |
|---|---|---|---|---|---|
| 73 | Hilda Booler Child Care Centre | 302 | 527 | 276 | 270 | 181 |
| 74 | Surry Hills Children's Centre | 155 | 174 | 152 | 150 | 180 |
| 75 | Lance Pre-School and Child Care | 423 | 412 | 436 | 425 | 175 |
| 76 | 6 Wood Street, Forest Lodge | | | 4 | 570 | 142 |
| 77 | Mary McDonald Activity Centre | 326 | 371 | 261 | 161 | 135 |
| 78 | Residence 13 Norman St | 155 | 153 | 181 | 234 | 125 |
| 79 | Storage Bldg / Admin Bldg | 983 | 30 | 87 | 107 | 125 |
| 80 | Residence 7 Norman St | 109 | 220 | 213 | 253 | 108 |
| 81 | Sunbeam Kindergarten | 138 | 146 | 124 | 137 | 106 |
| 82 | Maybanke Pre-School | 239 | 211 | 173 | 263 | 105 |
| 83 | Cumberland Street Depot | 293 | 325 | 279 | 238 | 105 |
| 84 | Mudgin-gal Women's Centre | 93 | 128 | 110 | 126 | 100 |
| 85 | Erskineville Arts Centre | 75 | 130 | 125 | 126 | 87 |
| 86 | Alexandria Aged Health Centre | 72 | 68 | 54 | 72 | 76 |
| 87 | Pine Street Creative Arts Centre | 165 | 162 | 198 | 175 | 75 |
| 88 | Meals on Wheels Centre | 266 | 163 | 73 | 81 | 74 |
| 89 | Harry Burland Activity Centre | 710 | 352 | 389 | 124 | 73 |
| 90 | Residence 5 Norman St | 153 | 183 | 117 | 132 | 69 |
| 91 | Residence 9 Norman St | 112 | 130 | 138 | 95 | 66 |
| 92 | 90 Regent Street | 57 | 928 | 593 | 1,036 | 56 |
| 93 | Residence 11 Norman St | 54 | 69 | 119 | 108 | 53 |
| 94 | Beaconsfield Community Centre | 25 | 34 | 33 | 93 | 49 |
| 95 | Kings Cross Car Park | 1 | 39 | 11 | 62 | 37 |
| 96 | Kent Street Tennis Centre | 208 | 107 | 151 | 69 | 30 |
| 97 | Broughton Street Kindergarten | 129 | 156 | 122 | 132 | 28 |
| 98 | Booler Community Centre | 61 | 88 | 65 | 65 | 26 |
| 99 | Green Park Bandstand | 20 | 50 | 21 | 25 | 25 |
| 100 | Stockton House | 201 | 95 | 146 | 37 | 22 |
| 101 | Millers Point Community Centre | 0 | 0 | 0 | 10 | 21 |
| 102 | 158 REDFERN ST | 15 | 1 | 33 | 46 | 20 |
| 103 | Prince Alfred Park Pool | 25,491 | 13,182 | 27,054 | 53 | 20 |
| 104 | Residence 15 Norman St | 56 | 48 | 41 | 38 | 17 |
| 105 | Residence 17 Norman St | 308 | 63 | 89 | 86 | 11 |
| 106 | Surry Hills Depot (Riley Street) | 59 | 59 | 25 | 21 | 8 |
| 107 | 3 the Crescent | 57 | 22 | 15 | 8 | 4 |
| 108 | 115-133 Dunning Avenue | 12,340 | 4,019 | 1,094 | 210 | 2 |
| 109 | Wattle Street Public Toilets | 0 | 0 | 0 | 3 | 2 |
| 110 | Redfern Community Centre | 29 | 3 | 9 | 1 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| 111 Riley Street Depot | 14 | 9 | 5 | 2 | 0 |
| 112 Waterloo Depot (Bourke Street) | 706 | 1,083 | 1,058 | 371 | 0 |
| 113 Bus Shelter Hyde Park | 431 | 190 | 28 | 0 | 0 |
| 114 Fig and Wattle Street Depot | 21 | 1 | 0 | 0 | 0 |
| 115 Redfern Park Early Childhood Centre | 23 | 86 | 229 | 6 | 0 |
| 116 Town Hall House Level 4 | 50 | 425 | 396 | 59 | 0 |
| 117 Domain Parking Stn (lease expired) | 3,411 | 5,323 | 2,335 | 3,859 | 0 |
| 118 Cope Street Car Park | 0 | 143 | 7 | 1 | 0 |
| **Water (kL) Sum** | **281,566** | **260,033** | **265,964** | **235,058** | **139,737** |

## Annexure 4 - City of Sydney Property Listing

3 the Crescent ANNANDALE NSW 2038
7 the Crescent ANNANDALE NSW 2038
10A Wattle Street PYRMONT NSW 2009
25-29 Burrows Road ST PETERS NSW 2044
7/12 Springfield Avenue POTTS POINT NSW 2011
8/12 Springfield Avenue POTTS POINT NSW 2011
Abraham Mott Gymnasium 2 Watson Road MILLERS POINT NSW 2000
Abraham Mott Hall 2 Watson Road MILLERS POINT NSW 2000
Alexandria Aged Health Centre 12A Dadley Street ALEXANDRIA NSW 2015
Alexandria Child Care Centre 41 Henderson Road EVELEIGH NSW 2015
Alexandria Depot 36 Gerard Street ALEXANDRIA NSW 2015
Alexandria Park Tennis Courts 10 Buckland Street ALEXANDRIA NSW 2015
Alexandria Park Toilets and Changing Rooms 10 Buckland Street ALEXANDRIA NSW 2015
Alexandria Town Hall 73 Garden Street ALEXANDRIA NSW 2015
Andrew 'Boy' Charlton Pool 1C Mrs MacQuaries Road SYDNEY NSW 2000
66-68 Kellett Street POTTS POINT NSW 2011
Arthur McElhone Reserve Depot 1A Billyard Avenue ELIZABETH BAY NSW 2010
Australand Commercial Building - 46-52 Mountain Street ULTIMO NSW 2007
Bay Street Depot 10-16 Bay Street ULTIMO NSW 2007
Beaconsfield Community Centre 169 Victoria Street BEACONSFIELD NSW 2015
Beare Park Public Toilets 13 Esplanade ELIZABETH BAY NSW 2011
Beehive Industries 137-155 Palmer Street DARLINGHURST NSW 2010
Bellevue Cottage 55 Leichhardt Street GLEBE NSW 2037
Benledi House 186-194 Glebe Point Road GLEBE NSW 2037
Bicentennial Shelter 2A Chapman Road ANNANDALE NSW 2038
Booler Community Centre 25-27 Lambert Street CAMPERDOWN NSW 2050
Bourke Street Depot (Plunkett Street) 75 Bourke Street WOOLLOOMOOLOO NSW 2011
Broughton Street Kindergarten 80 Broughton Street GLEBE NSW 2037
Bullecourt Lift (Ian Thorpe Aquatic Centre) 460-492 Harris Street ULTIMO NSW 2007
Bus Shelter Hyde Park 110 Elizabeth Street SYDNEY NSW 2000
Café (Hyde Park South) 120 Elizabeth Street SYDNEY NSW 2000
Capitol Square (Watkins Terrace) 730-742 George Street HAYMARKET NSW 2000
Capitol Theatre 3-21 Campbell Street HAYMARKET NSW 2000
Cathedral Street Car Park 1 Cathedral Street , SYDNEY NSW 2000
Chifley Square Cafe 1 Chifley Square SYDNEY NSW 2000
City Recital Hall 1Angel Place SYDNEY NSW 2000(TPK 518290)
Cliff Noble Activity Centre 24 Suttor Street ALEXANDRIA NSW 2015
Club Room (Cricket- Jubilee Pk) 2 Federal Road GLEBE NSW 2037
Commercial - Ground Floor 437-441 Bourke Street , SURRY HILLS NSW 2010
Community Space Basement B1 70B William Street , WOOLLOOMOOLOO NSW 2011
Cook & Phillip Park Aquatic Centre 2 College Street SYDNEY NSW 2000
Cope Street Car Park 49 Cope Street REDFERN
Coronation Hotel 5-7 Park Street SYDNEY NSW 2000

Coronation Recreation Centre 1003 Chalmers Street SURRY HILLS NSW 2010
Corporation Building 181-187 Hay Street HAYMARKET NSW 2000
Cumberland Street Depot 9 Cumberland Street THE ROCKS NSW 2000
Customs House 31 Alfred Street SYDNEY NSW 2000
Depot (unused), Dr Foley Park 140 Glebe Point Road GLEBE NSW 2037
Depot, Prince Alfred Park 1003 Chalmers Street SURRY HILLS NSW 2010
Domain Parking Station (lease expired) 2 Prince Albert Road SYDNEY NSW 2000
Doody Street Industrial Complex 4 Doody Street ALEXANDRIA NSW 2015
Dr Foley Park Early Childhood Centre 140 Glebe Point Road GLEBE NSW 2037
Dressing Sheds under Viaduct Wentworth Park Road GLEBE NSW 2037
Epsom Road Depot 94-104 Epsom Road ZETLAND NSW 2016
Erskineville Art's Centre - Tom Bass Sculpture School 1A Clara Street ERSKINEVILLE NSW 2043
Erskineville Oval Grandstand 149 Mitchell Road ERSKINEVILLE NSW 2043
Erskineville Retail Holding 106-112 Erskineville Road ERSKINEVILLE NSW 2042
Erskineville Town Hall 104 Erskineville Road ERSKINEVILLE NSW 2043
ESME Cahill 3 Joynton Avenue ZETLAND NSW 2017
Exiloo Redfern Park (Demolished) 51 Redfern Street REDFERN NSW 2016
Fig and Wattle Street Depot 14-26 Wattle Street , PYRMONT NSW 2009
Fish Market Light Rail Lift 55A Miller Street PYRMONT (TPK 616466)
Frances Newton Kindergarten 222 Palmer Street DARLINGHURST NSW 2010
George Street North Public Toilets 23 George Street THE ROCKS NSW 2000
Giba Park Lift 2 Point Street PYRMONT NSW 2009
Glebe Library 186-194 Glebe Point Road GLEBE NSW 2037
Glebe Town Hall 160 St Johns Road GLEBE NSW 2037
Golden Fleece Kindergarten 1 Beaumont Street, CHIPPENDALE NSW 2008
Gordon Ibbett Activity Centre 75-77 Kellick Street WATERLOO NSW 2016
Goulburn Street Parking Station 101 Goulburn Street HAYMARKET NSW 2000
Grandstand Redfern Oval (Demolished) 51 Redfern Street REDFERN NSW 2016
Grandstand Redfern Oval (New 2009) 51 Redfern Street REDFERN NSW 2016
Grandstand, Jubilee Park 2 Federal Road GLEBE NSW 2037
Green Park Bandstand 301 Victoria Street DARLINGHURST NSW 2010
Green Square Community Centre 3 Joynton Avenue ZETLAND NSW 2017
Harry Burland Activity Centre 132-134 Shepherd Street DARLINGTON NSW 2007
Harry Burland Hall 218-222 King Street NEWTOWN NSW 2042
Haymarket Library 744-744B George Street HAYMARKET NSW 1999
Heffron Hall 225-245 Palmer Street DARLINGHURST NSW 2009
Hickson Road Public Toilets (closed) 5010 High Steps MILLERS POINT NSW 2000
Hilda Booler Child Care Centre 2 Federal Road GLEBE NSW 2037
Huntley Street Industrial Complex 4 Huntley Street ALEXANDRIA NSW 2015
Ian Thorpe Aquatic Centre 460-492 Harris Street ULTIMO NSW 2007
Incinerator 53 Forsyth Street GLEBE NSW 2037
International Grammar School 4-8 Kelly Street ULTIMO NSW 2006
James Cahill Pre-School 1-7 Raglan Street WATERLOO NSW 2016
Jane Evans Day Centre 8-10 Victoria Street NEWTOWN NSW 2041

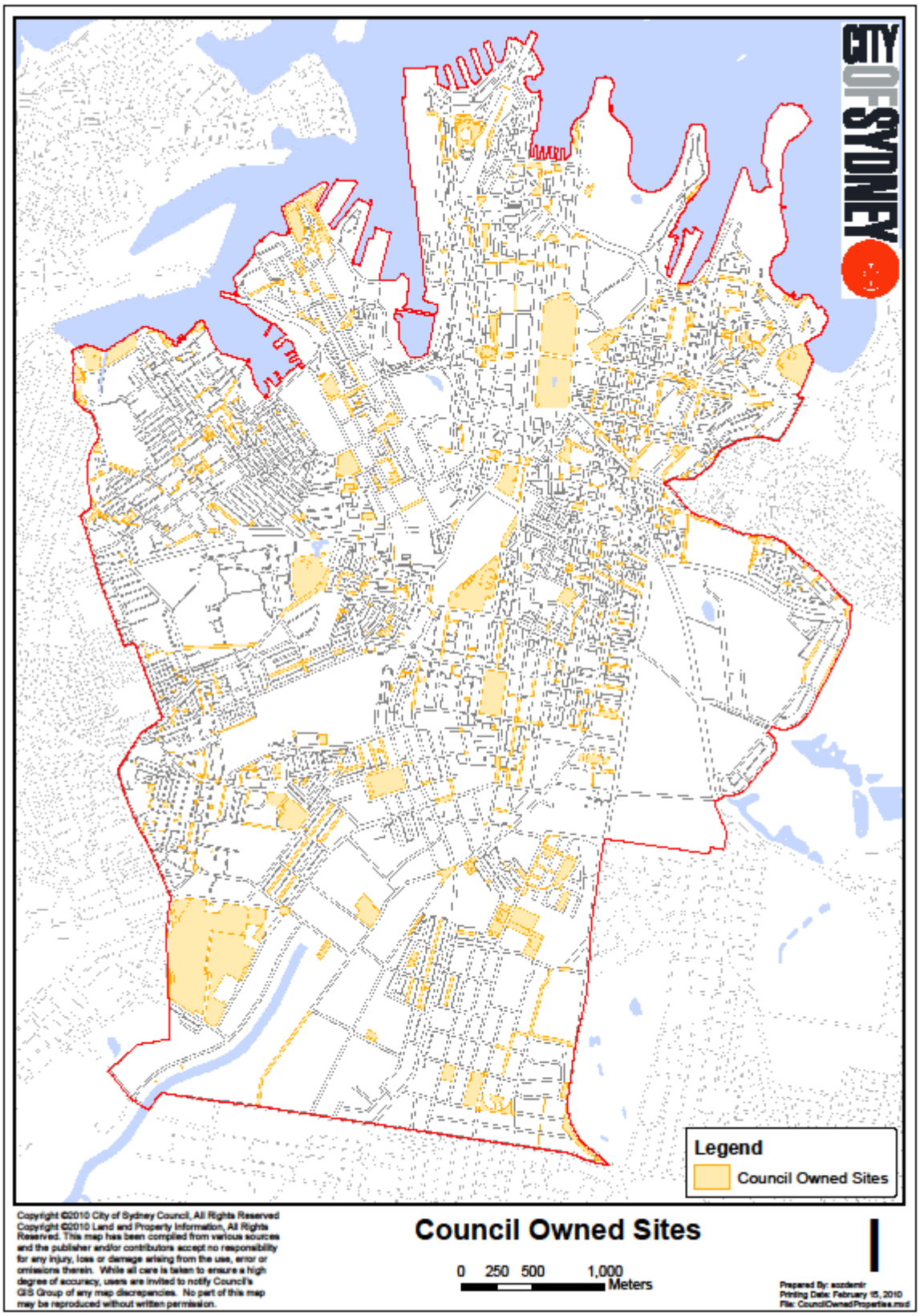
Joe Sargent Community Centre 60 Prospect Street ERSKINEVILLE NSW 2043
John J Carroll Pre-School 2-14 Phelps Street SURRY HILLS NSW 2009
Juanita Nielsen Community Centre 31 Nicholson Street WOOLLOOMOOLOO NSW 2011
Kent Street Tennis Centre 96-108 Kent Street MILLERS POINT NSW 1999
King George V Recreation Centre 15 Cumberland Street THE ROCKS NSW 2000
Kings Cross Car Park 9A Elizabeth Bay Road ELIZABETH BAY NSW 2011
Kings Cross Neighbourhood Service Centre and Library 50-52 Darlinghurst Road POTTS POINT NSW 2011
Kings Cross Police Station 1 Elizabeth Bay Road ELIZABETH BAY NSW 2011
Kiosk and Exeloo Joynton Park 21 Gadigal Avenue ZETLAND NSW 2017
Lance Pre-School and Child Care Centre 37 High Street MILLERS POINT NSW 2000
Lois Barker Child Care Centre 232 Pitt Street WATERLOO NSW 2017
Longdown Street Depot 25-27 O'Connell Street NEWTOWN NSW 2041
Macquarie Place Public Toilets (closed) 36 Bridge Street SYDNEY NSW 2000
Manning Building 447 Pitt Street HAYMARKET NSW 2000
Martin Place Café 2003 Martin Place SYDNEY NSW 2000
Martin Place Stage & Service Rooms 2002 Martin Place SYDNEY NSW 2000
Mary McDonald Activity Centre 82-88 Bourke Street WOOLLOOMOOLOO NSW 2011
Maybanke Pre-School 99 Harris Street PYRMONT NSW 2009
Maybanke Recreation Centre 87-97 Harris Street PYRMONT NSW 2009
McKee Street Child Care Centre 2-10 Mary Street ULTIMO NSW 2007
Meals on Wheels Centre Unit 7/8-10 Burrows Road ST PETERS NSW 2044
Millers Point Activity Centre 2 Watson Road MILLERS POINT NSW 2000
Millers Point Community Centre 87 Lower Fort Street MILLERS POINT NSW 2000
Mower Workshop Depot 11 Gibbons Street REDFERN NSW 2016
Mudgin-gal Women's Centre 231 Abercrombie Street DARLINGTON NSW 2008
Newtown Library 8-10 Brown Street NEWTOWN NSW 2042
Nursery and Depot 38 Barwon Park Road ALEXANDRIA NSW 2015
Nurses Quarters - The Lodge 184 Glebe Point Road GLEBE NSW 2037
Oatley Road Depot 4 Oatley Road PADDINGTON NSW 2021
Observatory Hill Rotunda 1001 Upper Fort Street MILLERS POINT NSW 2000
Old Air Raid Shelter 17A Albert Street ERSKINEVILLE NSW 2043
Old Turnstiles - 2 Federal Road GLEBE NSW 2037 2 Federal Road GLEBE NSW 2037
Oxford Street Holding 1 56-78 Oxford Street DARLINGHURST NSW 2010
Oxford Street Holding 2 82-106 Oxford Street DARLINGHURST NSW 2010
PACT Theatre 107-125 Railway Parade ERSKINEVILLE NSW 2043
Paddington Town Hall 247 Oxford Street PADDINGTON NSW 2021
Park House 295-301 Pitt Street SYDNEY NSW 2000
Perry Park Public Toilets 1B Maddox Street ALEXANDRIA NSW 2015
Peter Forsythe Auditorium 23-35A Bay Street GLEBE NSW 2037
Phillip Park Community and Children's Centre 1B Cathedral Street WOOLLOOMOOLOO NSW 2011
Pine Street Creative Arts Centre 62-64 Pine Street CHIPPENDALE NSW 2008
Pissoir Public Toilets 5010 George Street SYDNEY NSW 2000
Pitt Street Holding 1 307 Pitt Street SYDNEY NSW 2000

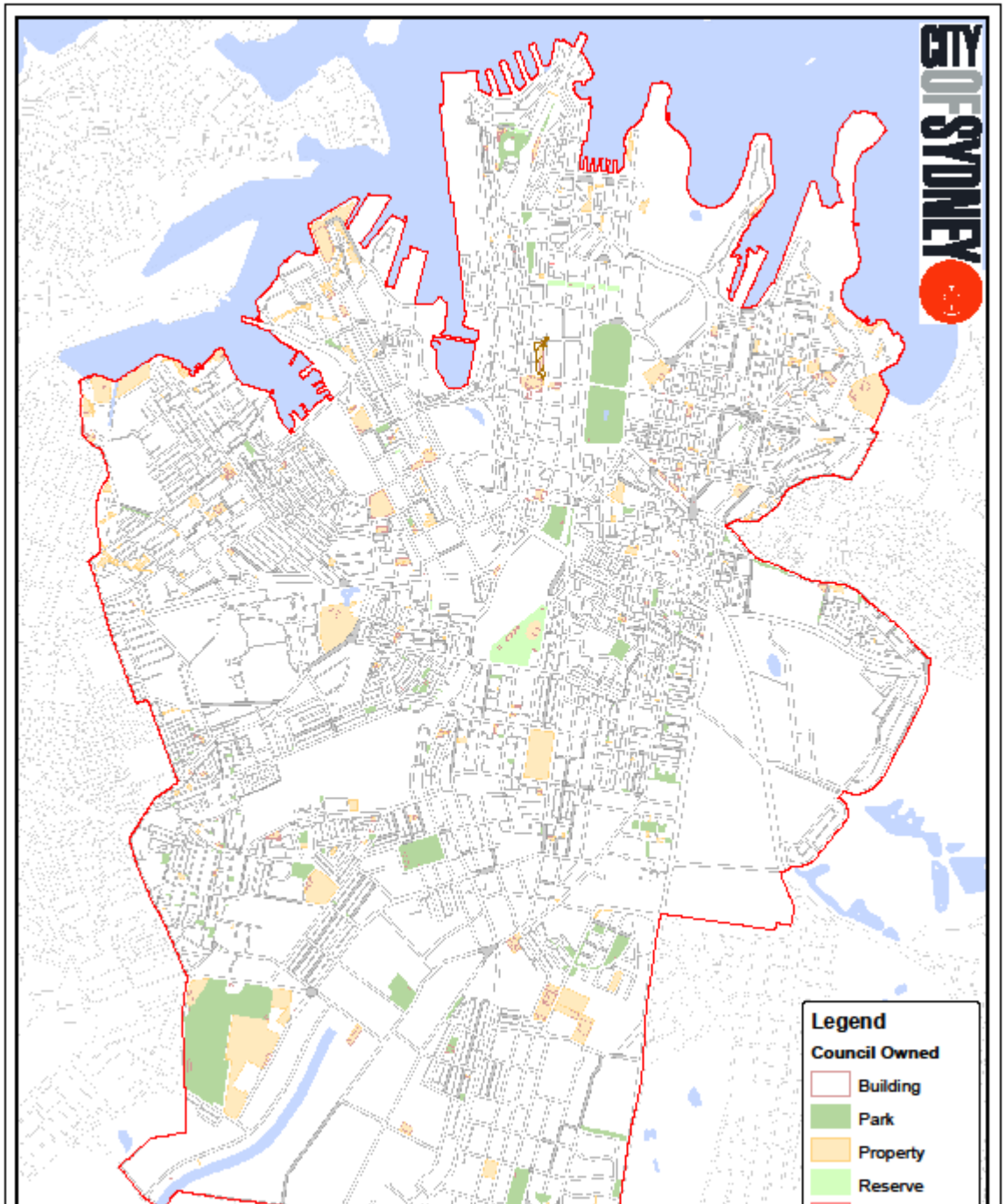
Pitt Street Holding 2 309-313 Pitt Street SYDNEY NSW 2000
Prince Alfred Park Pool 1004 Chalmers Street SURRY HILLS NSW 2010
Prince Alfred Park Tennis Courts 1007 Chalmers Street SURRY HILLS NSW 2010
Public Toilet Hyde Park (closed) 110 Elizabeth Street SYDNEY NSW 2000
Public Toilet, Dr Foley Park 140 Glebe Point Road GLEBE NSW 2037
Public Toilets Belmore Park (closed) 191 Hay Street HAYMARKET NSW 2000
Public Toilets (east) Jubilee Park 2 Federal Road GLEBE NSW 2037
Public Toilets (west) Jubilee Park 2 Federal Road GLEBE NSW 2037
Public Toilets Martin Place 2002 Martin Place SYDNEY NSW 2000
Public Toilets Prince Alfred Park (closed) 1003 Chalmers Street SURRY HILLS NSW 2010
Public Toilets within Viaduct 8 Chapman Road ANNANDALE NSW 2038
Pump House and Public Toilet (closed) 136 Oxford Street DARLINGHURST NSW 2010
Pyrmont Point Park Public Toilets 22-24 Pirrama Road PYRMONT NSW 2009
Pyrmont Community Centre 79A John Street PYRMONT NSW 2009
Queen Victoria Building (QVB) 429-481 George Street SYDNEY NSW 2000
Railway Square Interchange 816 George Street CHIPPENDALE NSW 2008
Recycling Depot Changing Room and Amenities 25-29 Burrows Road ST PETERS NSW 2044
Redfern Community Centre 28-54 Louis Street REDFERN NSW 2016
Redfern Depot (Marion Street) 11 Gibbons Street REDFERN NSW 2016
Redfern Neighbourhood Service Centre 158 Redfern Street REDFERN
Redfern Occasional Care Centre 55 Pitt Street REDFERN NSW 2016
Redfern Park Early Childhood Centre (Demolished) 51 Redfern Street REDFERN NSW 2016
Redfern Town Hall 73 Pitt Street REDFERN NSW 2016
Reg Bartley Oval Grandstand 6 Waratah Street RUSHCUTTERS BAY NSW 2011
Reg Bartley Oval Tennis Centre 6 Waratah Street RUSHCUTTERS BAY NSW 2011
Reginald Murphy Activity Club 19 Greenknowe Avenue ELIZABETH BAY NSW 2011
Residence 11 Norman Street DARLINGHURST NSW 2010
Residence 13 Norman Street DARLINGHURST NSW 2010
Residence 15 Norman Street DARLINGHURST NSW 2010
Residence 160 St Johns Road GLEBE NSW 2037
Residence 17 Albert Street ST PETERS
Residence 17 Norman Street DARLINGHURST NSW 2010
Residence 234 Dowling Street WOOLLOOMOOLOO NSW 2011
Residence 247-257 Bulwara Road ULTIMO NSW 2007
Residence 5 Norman Street DARLINGHURST NSW 2010
Residence 5 Waratah Street RUSHCUTTERS BAY NSW 2011
Residence 7 Norman Street DARLINGHURST NSW 2010
Residence 9 Norman Street DARLINGHURST NSW 2010
Retail Shops 110-122 Oxford Street DARLINGHURST NSW 2010
Rex Community Centre (includes restaurant) 58A MacLeay Street ELIZABETH BAY NSW 2011
Riley Street Depot 13-17 Riley Street WOOLLOOMOOLOO NSW 2010
Ron Williams Activity Centre 5-11 Kepos Street REDFERN NSW 2016

Roper Activity Club (closed) 545-549 South Dowling Street SURRY HILLS NSW 2010
Rosebery Child Care Centre 1 Harcourt Parade ROSEBERY NSW 2018
Rosebery Community Centre 78 Harcourt Parade ROSEBERY NSW 2018
Rosebery Depot 115 - 151 Dunning Avenue ROSEBERY
Rotunda Belmore Park 191 Hay Street HAYMARKET NSW 2000
Royal South Sydney Hospital (former) 3 Joynton Avenue ZETLAND NSW 2017
Rushcutters Bay Childcare Centre 7A Waratah Street RUSHCUTTERS BAY NSW 2011
Small Building, Old Radio Shack 140 Glebe Point Road GLEBE NSW 2037
South Sydney Youth Centre 1B Elizabeth Street WATERLOO NSW 2017
St Helens Community Centre 184 Glebe Point Road GLEBE NSW 2037
St James Café 110 Elizabeth Street SYDNEY NSW 2000
St James Park Tennis Courts and Clubhouse 3 Woolley Street GLEBE NSW 2037
State Emergency Service Facility 107-125 Railway Parade ERSKINEVILLE NSW 2043
Stockton House 73-75 William Street DARLINGHURST NSW 2010
Stoneyard and Depot 171-203 Euston Road ALEXANDRIA NSW 2014
Storage Building / Admin Building 140 Joynton Avenue ZETLAND NSW 2017
Storage Yard 17A Albert Street ST PETERS
Sunbeam Kindergarten 8 Lyne Street ALEXANDRIA NSW 2015
Surry Hills Child Care Centre 443-453 Riley Street SURRY HILLS NSW 2010
Surry Hills Children's Centre - Boys Brigade 402-404 Riley Street SURRY HILLS NSW 2010
Surry Hills Community and Child Care Centre and Library 405 Crown Street SURRY HILLS NSW 2010
Surry Hills Depot (Riley Street) 303-307 Riley Street SURRY HILLS NSW 2009
Sussex Street Public Toilets (closed) 18 Sussex Street SYDNEY NSW 2000
Sydney Park CARES Facility 410-416 Sydney Park Road ALEXANDRIA NSW 2015
Sydney Park Disused Building 167-169 Euston Road ALEXANDRIA NSW 2015
Sydney Park Kiln & Chimneys 2 Princes Highway ALEXANDRIA NSW 2015
Sydney Park Pavilion 418 Sydney Park Road ALEXANDRIA NSW 2015
Sydney Park Public Toilet 1 171-203 Euston Road ALEXANDRIA NSW 2015, TPK202702
Sydney Park Public Toilet 2 418 Sydney Park Road ALEXANDRIA NSW 2015
Sydney Park Pumping Station 167-169 Euston Road ALEXANDRIA NSW 2015
Sydney Square 483 George Street SYDNEY NSW 2000
Sydney Town Hall 483 George Street SYDNEY NSW 2000
Tabernacle 39 Burton Street DARLINGHURST NSW 2010
Ted McDermott Tennis Centre and Public Toilets 54 Queen Street BEACONSFIELD NSW 2015
Tennis Centre 7 Waratah Street RUSHCUTTERS BAY NSW 2011
Town Hall Arcade 483 George Street SYDNEY NSW 2000
Town Hall House 456 Kent Street SYDNEY NSW 2000
Turner Street Reserve 17 Turner Street REDFERN NSW 2016
Turruwul Park Depot 115 Rothschild Avenue ROSEBERY NSW 2018
Ultimo Child Care Centre 247-257 Bulwara Road ULTIMO NSW 2007
Ultimo Community Centre 40 William Henry Street ULTIMO NSW 2007
Vacant Land 54-56 Erskineville Road ERSKINEVILLE NSW 2043

Vacant Land 132-138 Joynton Avenue ZETLAND NSW 2017
Viaduct Rooms, Jubilee Park 6 Chapman Road ANNANDALE NSW 2038
Victoria Park Pool 1001 City Road CAMPERDOWN NSW 2050
Victoria Park Public Toilets (Caretakers Cottage) 2001 Parramatta Road CAMPERDOWN NSW 2050
Walla Mulla Park Public Toilets 161-171 Cathedral Street WOOLLOOMOOLOO NSW 2011
Water Police Site 2-10 Herbert Street PYRMONT NSW 2009
Waterloo Depot (Bourke Street) 956-960 Bourke Street ZETLAND NSW 2016
Waterloo Library 770 Elizabeth Street WATERLOO NSW 2017
Waterloo Oval Grandstand 1B Elizabeth Street WATERLOO NSW 2017
Watson Road Public Toilets 1 Watson Road MILLERS POINT NSW 2000
Wattle Street Lift 54 Wattle Street GLEBE NSW 2037
Wattle Street Public Toilets (closed) 123 Broadway ULTIMO NSW 2007
WAVES Hydro therapy 3 Joynton Avenue ZETLAND NSW 2017
Wentworth Park Depot Wentworth Park Road GLEBE NSW 2036
Williams Street Holding 1 101-111 William Street DARLINGHURST NSW 2010
Williams Street Holding 2 113-115 William Street DARLINGHURST NSW 2010
Woolworths 532-540 George Street SYDNEY NSW 2000
Workshop 50 Glebe Street GLEBE NSW 2037
Wynyard Park Public Toilets (closed) 1001 York Street SYDNEY NSW 2000
York Lane Subway 5030 Clarence Street SYDNEY NSW 2000
9 the Crescent ANNANDALE NSW 2038
90 Regent Street 90 Regent Street REDFERN NSW 2016
107 Redfern Street 107 Redfern Street REDFERN NSW 2016

## Annexure 5 - Maps of City of Sydney Property Listing




CITY OF SYDNEY
Legend
Council Owned
Building
Park
Property
Reserve

## Annexure 6 - Time of Use, Half-Hourly Meter Interval Data

The City's Utilities Information Management system (or STEvE - the System for Tracking Everything Environmental) can provide electrical profile information.

To log in go to www.uims.com.au/COS

User: trigentender
Password: trigentender

**Annexure 7 – Existing Primary Plant for Major Buildings**

The following is a list of initiatives undertaken for the largest energy consuming buildings.

| | | Initiatives undertaken or in progress | | | | | | | HVAC Type | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Building Name | Building Type | BEMS (Building Energy Management System) | Timer controls AC | Lighting control system | Lighting Occupancy Sensors | Lighting Upgrade | Hot Water | Power Factor Correction | Chiller | AHUs | Split System | Items to be excluded |
| Town Hall House | Commercial | Carrier (1990s) | No | No | Some | No | No | Yes | Y | Y | | Chillers and boilers (trigeneration) |
| Ultimo Aquatic Centre | Pool | Delta (2007) | No | Dynalite | No | No | No | Yes | | | Y | Heat pumps and boile (trigeneration) |
| Cook + Phillip Park Pool | Pool | TCT (2000) | No | IP | Yes | Yes | No | Yes | Y | Y | | Heat pumps, boilers a chiller (trigeneration) |
| Customs House | Commercial | AutoLogic (2000) | No | Dynalite | Some | No | No | Yes | | | Y | AC units and boiler (trigeneration) |
| Victoria Park Swimming Pool | Pool | Required | No | No | No | No | No | Yes | | | Y | Heat pumps and boile (trigeneration) |
| 307 Pitt St, Sydney | Commercial | AutoLogic (2008) | No | No | No | No | No | Yes | Y | Y | | |
| Epsom Road Depot | Depot | None | Yes | No | Yes | No | No | Yes | | | Y | |
| Sydney Town Hall | Town Hall | Carrier (2009) | No | Dynalite | Some | Yes | No | Yes | Y | | | |
| Bay Street Depot | Depot | None | Yes | No | Yes | Yes | No | Yes | | | Y | |
| Kings Cross Neighbourhood Service Centre & Library | Community Centre | TAC (2006) | No | Dynalite | No | No | Solar | Yes | Y | Y | | |
| Woolworths Building - George Street | Commercial | Carrier (2007) | No | No | No | No | No | Yes | Y | Y | | |
| Goulburn Street Parking Station | | None | No | No | No | LEDs | No | No | | | | |
| Ultimo Community Centre | Community Centre | KMC (2008) | No | Cbus | Yes | Yes | Solar | Yes | Y | | | |
| Hospital Site, Joynton Ave | Commercial | None | Yes | No | Yes | No | No | No | | | Y | |
| Andrew Boy Charlton Pool | Pool | Required | No | No | No | No | Heat Pump | No | | | Y | Heat pumps and boile (trigeneration) |
| Kings Cross Car Park | | None | No | No | No | No | No | No | | | | |
| Railway Square Interchange | Commercial | KMC (2008) | No | No | No | No | No | No | | | | |

| | | Initiatives undertaken or in progress | | | | | | | HVAC Type | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KGV Community Centre | Community Centre | KMC (2008) | No | Cbus | Yes | Yes | Solar Heat Pump | Yes | | | Y | |
| Rex Centre, Kings Cross | Community Centre | KMC (2008) | No | No | Yes | Yes | No | No | | | Y | |
| Surry Hills Community & Child Care Centre & Library | | Carrier (2009) | No | No | Some | No | No | Yes | | | Y | |
| Paddington Town Hall | Town Hall | KMC (2008) | No | No | Some | No | No | No | Y | Y | | |
| Plunkett Street Depot | Depot | Required | No | No | Yes | Yes | Solar | No | | | Y | |
| Caroline Street, Redfern | Community Centre | Required | No | No | Yes | Yes | Solar | Yes | | | Y | |
| Haymarket Library | Library | KMC (2007) | No | No | Yes | No | No | Yes | Y | | | |
| Glebe Library & Benledi House | Library | Required | No | No | Yes | No | No | Yes | | | Y | |
| Pyrmont Community Centre | Community Centre | Dakin | No | No | Yes | Yes | Solar | No | | | Y | |
| Meals on Wheels, Burrows Road | Commercial | None | Yes | No | No | No | No | No | | | Y | |
| 56-66 Oxford Street, Darlinghurst | Commercial | None | No | No | No | No | No | No | | | | |
| 101-111 William Street, Woolloomooloo | Commercial | None | No | No | No | No | No | No | | | | |
| Redfern Town Hall | Town Hall | KMC (2007) | No | No | Some | No | No | No | | | Y | |
| Alexandria Child Care Centre | Community Centre | None | No | No | Some | No | Solar | No | | | Y | |
| Waterloo Town Hall | Town Hall | None | No | No | Yes | No | No | No | | | Y | |
| Sydney Park Nursery | Depot | None | Yes | No | Yes | Yes | Solar | No | | | Y | |
| Newtown Town Hall | Town Hall | None | No | No | No | No | No | No | | | Y | |

**Annexure 8 – Photovoltaic Systems**

**Primary List of Buildings**

Photovoltaic Roofs

Ian Thorpe Aquatic Centre
Capitol Theatre
Nursery & Depot, Alexandra
Town Hall House
Victoria Park Pool
King George V Recreation Centre
Waterloo Oval Grandstand
Goulburn Street Car Park
Alexandra Town Hall
Ultimo Community Centre
Cook & Philip Park Aquatic Centre
Andrew Boy Charlton Pool
Erskineville Town Hall
Paddington Town Hall
Prince Alfred Park Pool
Glebe Town Hall
Redfern Town Hall
Sydney Town Hall – Phase 2
Alexandra Child Care Centre
Waterloo Library
Newtown Library

Photovoltaic Glass/Glass Canopies

Customs House Piazza
Railway Square Bus Interchange

**Secondary List of Buildings**

Photovoltaic Roofs

Dunning Avenue Depot (development application pending)
Perry Park Redevelopment
Erskineville Oval Grandstand
Community Gardens
Sydney Park Pavilion
Haymarket Library Building
Pine Street Creative Arts Centre
Reg Bartley Oval Grandstand
Sydney Park CARES Facility
South Sydney Youth Centre
Stockton House
Jubilee Park Grandstand

Photovoltaic Glass/Glass Canopies

Jubilee Park Grandstand

Victoria Park Pool
King George V Recreation Centre
Pine Street Creative Arts Centre
Paddington Town Hall

## Annexure 9 – Energy and Water Efficiency Retrofits Previously Installed

| Property | Title | Description | System | Forecast reduction (kWh pa) | Implementation Date |
|---|---|---|---|---|---|
| Abraham Mott Hall | Solar Hot Water | Install solar hot water system | Hot Water | 2,471 | Sep-09 |
| Alexandria Child Care Centre | Solar Hot Water | Install solar hot water system | Hot Water | 4,401 | Sep-09 |
| Alexandria Child Care Centre | Car park Lighting | External lighting upgrade and control | Lighting | 3,000 | Jun-10 |
| Alexandria Depot | Lighting Control | Lighting control (movement sensors) throughout building | Lighting | 20,000 | Jun-10 |
| Alexandria Town Hall | Lighting Control | Movement sensors in meeting rooms | Lighting | 5,000 | Jun-10 |
| All sites | LED Exit Lighting | Replace fluorescent Exit lights with LED exist lights | Lighting | 190,442 | Jan-12 |
| Andrew 'Boy' Charlton Pool | Disable Heat Pumps | 3 heat pumps (domestic HW) are running during winter. Investigation shown that they are cycling on/off throughout winter. | Hot Water | | Jun-10 |
| Bay Street Depot | Lighting Control and lamp upgrades | Movement sensors throughout depot and some lamp retrofits | Lighting | 200,000 | Jun-10 |
| Bay Street Depot | HVAC Timers | On/off timers | HVAC | 40,000 | Feb-10 |
| Bay Street Depot | Hot water unit | Domestic hot water: Electric heat pump to replace electric storage type | Hot Water | 13,889 | Jan-08 |
| Bay Street Depot | T5 retrofit | 24 hours fluorescent lighting: convert to T5 lamps | Lighting | 10,000 | Jan-08 |
| Bay Street Depot | Lighting control | Masonry Store lighting: occupancy sensor control | Lighting | 3,889 | Jan-08 |
| Bay Street Depot | Lighting control | Garage 1&2: improve lighting & associated control | Lighting | 38,889 | Jan-08 |
| Bay Street Depot | Heater control | Bar radiator time delay switches | HVAC | 10,000 | Jan-08 |
| Bay Street Depot | HVAC control modifications | HVAC: install push-button timers and contactors for 8 units | HVAC | 6,389 | Jan-08 |
| Bay Street Depot | lamp upgrade | Cleansing Bay lighting: change to 250W metal halide | Lighting | 11,111 | Jan-08 |
| Bay Street Depot | Power factor correction | Power Factor correction (upgrade to 0.98) | Other | - | Jan-08 |
| Bay Street Depot | lighting control | Car park lighting: dimming control system | Lighting | 10,833 | Jan-08 |
| Bay Street Depot | Lighting control | Car park lighting: separate store area circuits | Lighting | 10,000 | Jan-08 |
| Bay Street Depot | Lighting control | Masonry Store external lighting: Install PE cell control | Lighting | 8,056 | Jan-08 |
| Bourke Street Depot (Plunkett Street) | Lighting Control and lamp upgrades | Movement sensors throughout depot and some lamp retrofits | Lighting | 40,000 | Jun-10 |
| Bourke Street Depot (Plunkett Street) | Solar Hot Water | Install solar hot water system | Hot Water | 7,077 | Mar-10 |
| Cook & Phillip Park Aquatic Centre | Lighting Control | Install a lighting control system | Lighting | 40,000 | Sep-10 |
| Cook & Phillip Park Aquatic Centre | Lighting Upgrade | Replacement of discharge lighting with fluorescent light fittings | Lighting | 27,373 | Sep-10 |
| Customs House | Lighting Controls Programming | Change the lighting control strategy | Lighting | 40,000 | Mar-10 |
| Customs House | Cooling Tower VSD | Install a VSD control on the cooling tower fan motor | HVAC | 6,773 | Jul-10 |
| Customs House | Occupancy sensors | Lighting: Occupancy sensor control in level 2 tea room | Lighting | 556 | Jan-08 |
| Customs House | Power factor correction | Power Factor correction (upgrade to 0.98) | Other | - | Jan-08 |
| Customs House | Lighting control | Lighting: Exterior PE cell control | Lighting | 3,889 | Jan-08 |
| Customs House | HVAC control modifications | HVAC: Function Rooms - Occupancy Sensor control + Reassignment of push-button switches | HVAC | 11,667 | Jan-08 |

| | | | | | |
|---|---|---|---|---|---|
| Customs House | Set point adjustments | HVAC: Adjust temperature set-points to widen dead-band | HVAC | 7,222 | Jan-08 |
| Customs House | Lighting control | Lighting: Levels 1 & 2 circuits separation + control | Lighting | 111,944 | Jan-08 |
| Customs House | HVAC control modifications | HVAC controls tuning: time of use | HVAC | 74,444 | Jan-08 |
| Customs House | lamp upgrade | Lighting: Incandescent to CFL's upgrade | Lighting | 6,389 | Jan-08 |
| Customs House | HVAC control modifications | HVAC: Optimum start and stop | HVAC | 3,889 | Jan-08 |
| Epsom Road Depot | Lighting upgrade | replace mercury vapour lamps with Tornado fluorescents | Lighting | 24,820 | Jun-10 |
| Epsom Road Depot | HVAC Timers | On/off timers | HVAC | 40,000 | Feb-10 |
| Epsom Road Depot | Occupancy sensors | Install occupancy sensors to main office and staff room lights | Lighting | 3,056 | Jan-08 |
| Epsom Road Depot | Occupancy sensors | Install occupancy sensors to office, common room and store lights of building near the front entrance | Lighting | 5,000 | Jan-08 |
| Epsom Road Depot | Occupancy sensors | Install occupancy sensors to the Garbage department office, common room and corridor lights | Lighting | 6,667 | Jan-08 |
| Epsom Road Depot | Occupancy sensors | Install light switches in main workshop, and welding shop | Lighting | 8,056 | Jan-08 |
| Epsom Road Depot | Power factor correction | Power Factor correction (upgrade to 0.98) | Other | - | Jan-08 |
| Epsom Road Depot | Heater control | Install push-button timer switch to bar radiators | HVAC | 8,611 | Jan-08 |
| Epsom Road Depot | Compressed air review | Survey of site compressed air requirements, installation of new air compressor and receiver, and repair all leaking compressed air fittings | Other | - | Jan-08 |
| Epsom Road Depot | Lighting control | Install PE cell control to car park fluorescent and halogen flood lamps | Lighting | 10,000 | Jan-08 |
| Epsom Road Depot | Lighting control | Install PE light switch and occupancy sensor with On/Off timer to fluorescent and high bay lamps in covered area near main office entrance | Lighting | 23,889 | Jan-08 |
| Epsom Road Depot | Lighting control | Lighting control: Install switches in the car park store room, main store room and tyre store room | Lighting | 62,778 | Jan-08 |
| Goulburn Street Parking Station | Car Park Led upgrade | Retrofitting fluorescent tubes in car park with LED tubes | Lighting | 182,208 | Dec-10 |
| Haymarket Library | Hot water unit | Fit timer to ZIP water heater in staff kitchenette | Hot Water | 278 | Jan-08 |
| Haymarket Library | BMCS installation | Install a new DDC system for A/C control | HVAC | 31,389 | Jan-08 |
| Haymarket Library | lamp upgrade | Replace 50W Low voltage down lights with 35W IRC lamps | Lighting | 3,889 | Jan-08 |
| Ian Thorpe Aquatic Centre | De-lamping service areas | Service corridor areas are over lit - remove every second tube or relocate fittings appropriately | Lighting | 12,614 | Jun-10 |
| Ian Thorpe Aquatic Centre | Lighting Control | Fine tuning of lighting controls to prevent lights turning on during day | Lighting | 10,950 | Mar-10 |
| Jane Evans Day Centre | Solar Hot Water | Install solar hot water system | Hot Water | 3,171 | Sep-09 |
| Juanita Nielsen Community Centre | Solar Hot Water | Install solar hot water system | Hot Water | 9,789 | Sep-09 |
| Juanita Nielsen Community Centre | Lighting Upgrade and skylights | Install skylights to gym areas, de-lamp fittings where possible - install tri phosphor tubes. Install occupancy and daylight sensors. | Lighting | 20,787 | May-10 |
| Juanita Nielsen Community Centre | Lighting Upgrade and skylights | Install skylights to gym areas, de-lamp fittings where possible - install tri phosphor tubes. Install occupancy and daylight sensors. | Lighting | 20,787 | May-10 |

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| King George V Recreation Centre | Sports court lighting upgrade | Retrofit the sports court lights for smaller lamps. | Lighting | 62,208 | Jun-10 |
| King George V Recreation Centre | Solar Hot Water | Install solar hot water system | Hot Water | 5,299 | Mar-10 |
| King George V Recreation Centre | Gym area light replacement | Replacement of the indoor sports court metal halide lighting with dimmable fluorescent fittings and with daylight and occupancy controls | Lighting | 12,066 | Jun-10 |
| King George V Recreation Centre | Lighting control and misc upgrades | | Lighting | 20,000 | Jun-10 |
| King George V Recreation Centre | Hot water unit | Domestic Hot Water - solar heat pump system with remote evaporators | Hot Water | 25,278 | Jan-08 |
| King George V Recreation Centre | BMCS installation | Install BMCS System | HVAC | - | Jan-08 |
| King George V Recreation Centre | Lighting control | Offices/Reception areas lighting - voltage reduction | Lighting | 8,333 | Jan-08 |
| King George V Recreation Centre | Lighting control | Gym lighting - voltage reduction | Lighting | 4,444 | Jan-08 |
| King George V Recreation Centre | Lighting control | Court lighting controls | Lighting | 35,000 | Jan-08 |
| Kings Cross Neighbourhood Service Centre and Library | Solar Hot Water | Install solar hot water system | Hot Water | 3,171 | Sep-09 |
| Kings Cross Neighbourhood Service Centre and Library | Set point and schedule adjustments | | HVAC | 6,525 | Apr-10 |
| Kings Cross Neighbourhood Service Centre and Library | Set point and schedule adjustments | | HVAC | 6,525 | Apr-10 |
| Meals on Wheels Centre | Air conditioning control | AC in packing room to be controlled via time switch/timer | HVAC | 4,380 | Sep-10 |
| Nursery and Depot | Lighting Controls | | Lighting | 20,000 | Jun-10 |
| Nursery and Depot | Lighting Upgrade and skylights | Replace double T8 fittings with single T5 | Lighting | 5,000 | Jun-10 |
| Nursery and Depot | Solar Hot Water | Install solar hot water system | Hot Water | 7,077 | Mar-10 |
| Nursery and Depot | HVAC Timers | On/off timers | HVAC | 10,000 | Feb-10 |
| Paddington Town Hall | Power factor correction | Power Factor correction (upgrade to 0.98) | Other | - | Jan-08 |
| Paddington Town Hall | BMCS installation | Install BMCS System | HVAC | - | Jan-08 |
| Pitt Street Holding 1 | Clean Heating coils | Cleaning of heating coils to improve air flow | HVAC | | Jan-08 |
| Pyrmont Community Centre | Solar Hot Water | Install solar hot water system | Hot Water | 3,171 | Sep-09 |
| Pyrmont Community Centre | Lighting Control | Install occupancy and daylight sensors to the toilets and other areas of the building | Lighting | 8,000 | Jun-10 |
| Railway Square Interchange | Escalator Variable Speed Control | The four escalator operation to be controlled by movement sensors | Lighting | 36,500 | Sep-10 |
| Railway Square Interchange | BMCS installation | Installation of a BMCS system | HVAC | - | Jan-08 |
| Railway Square Interchange | Lighting control | Add supplementary lighting to tunnel lighting to allow the feature lighting to be turned off. | Lighting | | Jun-10 |
| Redfern Community Centre | Solar Hot Water | Installation of solar hot water system | Hot Water | 11,671 | Sep-09 |
| Redfern Community Centre | Solar PV cells | 8kw Solar PV cell installation | Other | 10,512 | Sep-09 |
| Redfern Community Centre | Lighting Controls | install occupancy sensors in meeting rooms and de-lamp overlit areas | Lighting | 15,000 | May-10 |
| Redfern Community Centre | Solar PV cells | 8kw Solar PV cell installation | Other | 10,512 | Sep-09 |
| Redfern Town Hall | Hot water unit | Remove leaking 50 litre hot water heater and connect piping to existing system | Hot Water | - | Jan-08 |

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| Redfern Town Hall | Hot water unit | Fit timer to Zip water heater in staff kitchenette | Hot Water | 278 | Jan-08 |
| Redfern Town Hall | Lighting control | Install voltage reduction unit to the fluorescent lamps in ground floor tenancy | Lighting | 1,111 | Jan-08 |
| Redfern Town Hall | lamp upgrade | Replace 100W halogen wall lamps with 23W CFL's in the foyers | Lighting | 2,500 | Jan-08 |
| Redfern Town Hall | Refrigerator control | Install timer to the large refrigerator plug such that the fridge only operates when needed | Other | 1,389 | Jan-08 |
| Redfern Town Hall | Hot water unit | Fit timer to large ZIP water heater in main kitchen area | Hot Water | 1,389 | Jan-08 |
| Redfern Town Hall | lamp upgrade | Replace 50W low voltage down lights with 35W IRC lamps | Lighting | 833 | Jan-08 |
| Rex Centre | Lighting Control and light fitting replacement | Replacement of troffer fittings and installation of movement sensors | Lighting | 17,892 | May-10 |
| Rosebery Child Care Centre | Solar Hot Water | Install solar hot water system | Hot Water | 3,171 | Sep-09 |
| Royal South Sydney Hospital (former) | HVAC Timers | On/off timers | HVAC | 100,000 | Feb-10 |
| Royal South Sydney Hospital (former) | HVAC Timers | On/off timers | HVAC | 100,000 | Feb-10 |
| State Emergency Service Facility | Solar PV cells | 7kw Solar PV cell installation | Other | 9,198 | Oct-09 |
| State Emergency Service Facility | Solar Hot Water | Install solar hot water system | Hot Water | 3,171 | Sep-09 |
| 'Town Hall House | Rooftop supplementary chiller decommissioning | Supplementary chiller is part of previous tenancy fit out - connected loads can be transferred to condenser water circuit. | HVAC | 175,200 | Dec-09 |
| Town Hall House | Car park exhaust fan control | Provide linear (modulating) control of car park supply and exhaust fans based on CO levels. | HVAC | 31,200 | Dec-09 |
| Town Hall House | Car Park lighting upgrade | Upgrade light fittings, paint walls and ceiling and install movement sensors | Lighting | 107,642 | Jun-10 |
| Town Hall House | Recommission domestic hot water (DHW) controls | Recommission domestic hot water (DHW) controls | Hot Water | 5,556 | Jan-10 |
| Town Hall House | Upgrade lighting control | Upgrade lighting control and provide after-hour switches to levels 5, 6, 7, 8,9, 10, 12, 13, 14, 22 and 23 | Lighting | 62,222 | Jan-10 |
| Town Hall House | T5 retrofit | Upgrade single T8 lamps with T5 retrofit kits to levels that have already been upgraded: levels 5, 10, 11, 14, 22 and 23 | Lighting | 127,778 | Jan-10 |
| Town Hall House | T5 retrofit | Upgrade T8 lamps with T5 retrofit kits to Level 3 | Lighting | | Jan-10 |
| Town Hall House | T5 retrofit | Upgrade T8 lamps with T5 retrofit kits to Levels 1 and 2 | Lighting | | Jan-10 |
| Town Hall House | T5 retrofit | Upgrade T8 lamps with T5 retrofit kits to all toilets | Lighting | | Jan-10 |
| Town Hall House | Lighting upgrade | Lighting upgrade to levels 6,7,8,9 and 13 - install voltage reduction units with T8 tri-phosphor lamps | Lighting | 110,278 | Jan-10 |
| Town Hall House | Chiller control | Optimise CHW and condenser water chiller control | HVAC | 32,222 | Jan-10 |
| Town Hall House | OA cycle recommissioning | Recommission outside economy air-cycles | HVAC | 46,667 | Jan-10 |
| Town Hall House | Reschedule AC times | Reschedule all after-hour fans and misc. A/C loads to limit use to 7am-6pm operations | HVAC | 154,167 | Jan-10 |
| Town Hall House | Boiler controls | Recommission boiler controls and heating valves | HVAC | 326,389 | Jan-10 |
| Town Hall House | Supplementary AC unit | Install supplementary AC to Level 1 + 5 for after hours use | HVAC | - | Jan-10 |
| Town Hall House | Sub metering | Sub metering of levels 1 to 12 | Other | | Jun-09 |

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| Ultimo Community Centre | Lighting Upgrade | Library, Passive Hall and other area light fitting (troffer) replacement | Lighting | 29,158 | Jun-10 |
| Ultimo Community Centre | Sports court lighting upgrade | Replacement of the indoor sports court metal halide lighting with dimmable fluorescent fittings and with daylight and occupancy controls | Lighting | 14,717 | Jun-10 |
| Ultimo Community Centre | Lighting Control System | Install lighting control system | Lighting | 10,000 | Jun-10 |
| Ultimo Community Centre | Power factor correction | Power Factor correction (upgrade to 0.98) | Other | - | Jan-08 |
| Ultimo Community Centre | BMCS installation | Installation of BMCS system | HVAC | - | Jan-08 |
| Ultimo Community Centre | Car park fan control | CO Sensors and On/Off controls for car park ventilation fan | HVAC | 5,556 | Jan-08 |
| Ultimo Community Centre | Lighting control | Install voltage reduction unit to fluorescent lamps in main hall, Jessie Street library and Main Library | Lighting | 10,833 | Jan-08 |
| Ultimo Community Centre | T5 retrofit | Lighting upgrade from T8 to T5 lamps using retrofit kits - L1 seminar room 1&2, ground floor kitchen and L2 foyer | Lighting | 3,889 | Jan-08 |
| Ultimo Community Centre | T5 retrofit | Replace metal halide lamps in car park to T5 fluorescent lamps | Lighting | 21,389 | Jan-08 |
| Ultimo Community Centre | Solar hot water | Install solar hot water system | Hot Water | 12,000 | Apr-10 |
| Waterloo Library | Lighting controls and de-lamping | De-lamping 65 double fluorescents with single triphosphor tubes and a number of occupancy sensors | Lighting | 9,000 | Jun-10 |

## Annexure 10 – Details of Proposed Energy and Water Efficiency Retrofit Projects

| Property | Title | Description | System | Forecas reductio (kWh pa) |
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| Alexandria Child Care Centre | Lighting Control | Install occupancy and daylight sensors to the toilets and other areas of the building | Lighting | |
| Alexandria Child Care Centre | Skylights | install skylights throughout building | Lighting | |
| Andrew 'Boy' Charlton Pool | Pool Heating | Install cogeneration for pool heating and hot water | Cogen | 3136606 |
| Bourke Street Depot (Plunkett Street) | HVAC Control System | Install intelligent HVAC controls | HVAC | 20,000 |
| Cook & Phillip Park Aquatic Centre | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Customs House | Halogen Lamp Replacement | Replace 263 halogen lamps with LED lamps | Lighting | 69,116 |
| Customs House | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Glebe Library | Rainwater Harvesting | Installation of rainwater tank and connection for use in building amenities and, landscaping and/or street cleaning. | Other | |
| Haymarket Library | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Ian Thorpe Aquatic Centre | Gym air conditioning redesign | Absorption chiller. Add fresh-air economiser cycle. Change control strategy | HVAC | 91,250 |
| Ian Thorpe Aquatic Centre | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| King George V Recreation Centre | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| King George V Recreation Centre | Rainwater Harvesting | Installation of rainwater tank and connection for use in building amenities and, landscaping and/or street cleaning. | Other | |
| Kings Cross Car Park | Car Park Led upgrade | Retrofitting fluorescent tubes in car park with LED tubes | Lighting | |
| Kings Cross Neighbourhood Service Centre and Library | Chilled water VSD | Installation of a variable speed drive to the chilled water pump | HVAC | 6,525 |
| Kings Cross Neighbourhood Service Centre and Library | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Meals on Wheels Centre | Lighting Control | Install occupancy lighting controls | Lighting | 7,000 |
| Paddington Town Hall | Solar Hot Water | Install solar hot water system | Hot Water | 5,000 |
| Paddington Town Hall | Lighting Upgrade | Internal and External lighting to be upgraded to LED and fluorescent as part of building refurbishment | Lighting | 30,000 |
| Paddington Town Hall | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Pyrmont Community Centre | Air conditioning control | Install user initiated start for the HVAC systems | HVAC | 18,240 |
| Railway Square Interchange | Tunnel Lighting | Install new lighting in tunnel - reduce running hours of light wall | Lighting | 98,918 |
| Railway Square Interchange | Tunnel Lighting | Replace halogen and compact fluorescent with LED | Lighting | 8,000 |
| Railway Square Interchange | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Redfern Community Centre | HVAC Control System | Install intelligent HVAC controls | HVAC | 40,000 |
| Redfern Community Centre | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Rex Community Centre (includes restaurant) | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Town Hall House | Air conditioning refurbishment | Full refurbishment of the AC systems, including controls and air handling equipment | HVAC | 570,000 |

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| Town Hall House | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Ultimo Community Centre | Building Control System upgrade | Reprogram existing control system, implementing energy efficient strategies | HVAC | 15,000 |
| Ultimo Community Centre | Rainwater Harvesting | Installation of rainwater tank and connection for use in building amenities and, landscaping and/or street cleaning. | Other | |
| Victoria Park Pool | Dressing room skylights | Remove ceiling and reinstate skylights, repaint dressing room, replace lighting and install occupancy and daylight controls for lighting and fan | Lighting | 14,653 |
| Victoria Park Pool | Rainwater Harvesting | Installation of rainwater tank and connection for use in building amenities and, landscaping and/or street cleaning. | Other | |