



ENERGY AUDIT



Velocity Electrical SAMPLE

## Energy Audit

XXXX Hotel

XXXXX

North Sydney

*10/5/2013*

Conducted by Velocity Electrical





ENERGY AUDIT



XXXX

**Energy Audit**

**North Sydney**

**10/5/2013**

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## SECTION 1 – INTRODUCTION

### 1.1 SCOPE OF AUDIT

This audit is an evaluation of current energy using activities at:

[Name and Location of Site]

The audit covers:

[Tenancy or operation within a building at the site – specify] OR

[The central building services and common areas at the site excluding individual tenancies]

OR

[All aspects of the site – specify any areas excluded]

The audit addresses the following building-related activities:

[Exclude any which do not apply]

- Energy supply and metering
- Lighting
- Climate control (Heating, Ventilation and Air Conditioning)
- Office Equipment, including IT
- Catering
- Hospitality services
- Maintenance and vehicle servicing
- Manufacturing [specify type \_\_\_\_\_]

### 1.2 REVIEW PROCESS

This audit has been conducted as

[Select the applicable audit type]

**A Walkthrough Audit.** The audit comprised a preliminary inspection of the site which included:

- Inspection of energy-using equipment, activities and processes at the site;
- Inspection of features of the site which may influence energy use; and
- Examination of existing billing and metering data.

The auditor has only conducted direct monitoring, metering and testing of energy use to the extent that this was feasible as part of the preliminary inspection.

The purpose of this walkthrough audit has been to:

- Provide an overall summary view of the site's energy performance

- Identify maintenance, operational or deficient equipment issues observable as part of the preliminary inspection
- Identifies quick-wins – simple low cost measures that can improve energy performance
- Identifies areas for further evaluation, including additional monitoring, metering and testing, or the investigation of specific modifications to equipment or processes
- Provide estimates of the payback periods of recommended actions

**A Comprehensive Audit.** The audit comprised a comprehensive review of equipment,, activities, and processes at the site which included:

- Installation of temporary or permanent monitoring and metering of energy-using equipment, activities and processes at the site;
- Development of a comprehensive model of energy use at the site; and
- Development of recommendations for improvements in energy performance based on quantitative data.

The purpose of this comprehensive audit has been to:

- Provide a detailed quantitative analysis of the site's energy performance
- Identify scope for improvements in performance and make recommendations for action
- Provide the necessary data for investment-grade evaluations of recommended actions

This audit provides an assessment of the potential impact of any recommended actions on the NABERS rating for the building. These preliminary assessments should be verified by an Accredited NABERS Assessor.

### 1.3 AUDIT ACTIVITIES

[Describe the activities undertaken during the audit. These may include:

- Site inspections,
- Interviews,
- Consultation with staff,
- Engineering reviews of processes, activities or equipment
- Monitoring, metering and testing]

### 1.3 BRIEF DESCRIPTION OF SITE

[Site Map

Process Diagrams if applicable

Describe the main energy using facilities, activities and processes at the site including systems for measurement and control of energy use]

## SECTION 2 – CURRENT ENERGY USE

### 2.1 CURRENT ENERGY CONSUMPTION

Table showing:

- Monthly energy consumption for the 12 months prior to the review – show electricity, gas and any other energy sources
- Average cost of energy

[Use tables and graphs from Energy Consumption Data Worksheet

Provide comments on any trends or features of measured energy use, e.g. seasonal patterns]

*Electricity*

*Gas*

## 2.2 PRELIMINARY NABERS RATING

On the basis of information collected as part of this audit, the current NABERS energy rating for the site is estimated to be X.X stars.

An improvement of 1 star in the site's energy rating would require an energy saving of YY GJ.

## 2.2 METERING ARRANGEMENTS

[Describe metering and supply arrangements.]

Are there changes in metering and supply arrangements with energy suppliers that could provide energy consumption savings, cost savings or improvements in reliability of supply? (include in recommendations if applicable)]

## SECTION 3 – REVIEW OF SITE ACTIVITIES

### 3.1 LIGHTING

[Summarise principal lighting requirements at the site (e.g. office, display security lighting) and the solutions currently in place. Discuss advantages and deficiencies of the current solution and options for improvement. Consider options for automated control.]

#### 3.1.1 *Opportunity 1*

#### 3.1.2 *Opportunity 2*

### **3.2 CLIMATE CONTROL**

[Summarise current HVAC arrangements. Discuss advantages and deficiencies of the current solution and options for improvement. Include discussion of modifications to building fabric as well as energy-using equipment. Consider options for automated control.]

#### **3.1.1 Opportunity 3**

#### **3.1.2 Opportunity 4**

### **3.3 OFFICE EQUIPMENT**

[Summarise current office equipment including IT, communications, and other office equipment. Include service items such as office kitchens. Discuss advantages and deficiencies of the current solution and options for improvement.]

#### **3.3.1 Opportunity 5**

#### **3.3.2 Opportunity 6**



### 3.4 OFFICE EQUIPMENT

[Identify other energy-using equipment in the building. Discuss advantages and deficiencies of the current solution and options for improvement.]

#### 3.4.1 Opportunity 7

#### 3.4.2 Opportunity 8

## SECTION 4 – ENERGY SAVINGS OPPORTUNITIES IDENTIFIED

Table showing:

- Opportunity Name
- Annual Energy Saving
- Annual Energy Saving
- Implementation Cost
- Ongoing Cost
- Payback Period
- Accuracy

[Use table from Energy Savings Opportunities Worksheet]

## SECTION 5 – SCOPE FOR FURTHER REVIEWS

[List any areas where additional information or more detailed reviews may be necessary to identify energy efficiency opportunities. This could include areas where additional metering and measurement information may be required.]

Provide an assessment of the potential improvements available.]

## SECTION 6 – SUMMARY OF RECOMMENDATIONS AND PROPOSED IMPLEMENTATION PLAN

[Dot point summary of the main findings listed in Sections 4 and 5.]

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