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ENERGY IN DESIGN POLICY

Purpose:

The purpose of this policy is to control design activities in order to ensure that energy performance is considered in the design process, and that considerable energy reductions and efficiencies are achieved as a result.

1. Introduction

HSL does / will undertake or commission, or has undertaken and commissioned, the following design activities directly:

- Internal office spaces
- New offices – Penjuru Road Complex or Penjuru Complex Development (PCD) and extensions to Gul Lane – and associated systems such as lighting, cooling, and power supply
- Office based IT infrastructure such as servers and switch gear
- The purchase and customisation of software solutions – i.e. Navison
- Training courses
- Welding, fabrication, and assembly process

HSL is contracted by its clients to construct products as per the client's designs. HSL has influence over the way in which this construction is carried out, for example through its choice and use of equipment and internal operating processes, but has no control over the product specification, should the product be an energy user. The energy issues related to the choice and use of equipment are dealt with in the organisation's procurement process and operational controls.

2. Requirements

2.1 *Existing and New Internal Office Spaces*

2.1.1 All internal office spaces will be designed, implemented, and maintained in accordance with the guidance set out for Green Mark compliant office interiors, the requirements of the EnMS and other IMS requirements.


2.2 *New Office Buildings and Extensions*

2.2.1 All new offices, extensions, and other buildings will be constructed to meet the Green Mark certified standard or above.

2.2.2 All building services which use energy will be designed in accordance with the requirements of Green Mark Scheme, the Building Control Act, and the relevant Singapore Standard Codes of Practice. See the Register of Applicable Legal and Other Requirements for a full list.

2.3 *Office based IT Infrastructure*

2.3.2 All office IT infrastructure shall be designed in accordance with the relevant Singapore standards and requirements set out in the Green Mark Scheme for office interiors.

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2.3.3 HSL will have regard to best practice for energy efficient and environmentally friendly IT infrastructure, such as server virtualisation, when designing new infrastructure systems.

2.4 *New IT Systems and Customisations*

2.4.1 When procuring and customising IT software solutions that relate to building management, energy, equipment use, or any significant energy use, HSL will consider the impact of the system on the EnMS, especially its ability to improve the organisation's energy knowledge base.

2.4.2 Considerations shall include the system's ability to record, provide and analyse data, report, compare performance against key energy performance indicators and Significant Energy Uses (SEU) energy performance indicators, including the related energy consumption and costs of energy to the organisation.

2.5 *Training Courses*

2.5.1 All new or existing training courses related to the use of SEUs will be designed or redesigned to address the energy performance of these SEUs against their target performance and will be consistent with the relevant operational controls.

2.5.2 All general staff training related to the organisation's operation of energy using aspects, both significant and insignificant, including the integrated management system, will address energy performance and the EnMS where relevant.

2.6 *Welding, fabrication, and assembly process*

2.6.1 Welding, fabrication and assembly processes shall be designed to minimise the energy consumed by equipment and vehicles by reducing equipment idling times.

2.6.2 These processes shall be designed to ensure minimum vehicle journeys are undertaken.

2.6.3 Processes shall also be designed to achieve an efficient conversion of energy into power, for example, using electricity, diesel, or other fuels, or compressed air, where the most efficient fuel input ratio to production output can be achieved.


3. Implementation

3.1 *Staff*

3.1.1 The following staff are responsible for implementing this policy:

- a) Existing and New Internal Office Spaces – Office Manager
- b) New Office Buildings and Extensions – Assigned Project Manager
- c) Office based IT Infrastructure – IT Manager
- d) New IT Systems and Customisations – IT Manager
- e) Training Courses – HR Manager
- f) Welding, fabrication, and assembly process – Logistics Manager

3.2 *Evaluation*

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3.2.1 The above staff will ensure that an energy performance evaluation is conducted of their design activity and record the results of this evaluation in a report.

3.2.2 The energy performance evaluation report shall contain options for the organisation to consider and these options shall include the impact of each option on the organisation's energy performance and EnMS.

3.3 *Reporting*

3.3.1 The results of the energy performance evaluation shall be reported to the Environment and Energy Committee who will consider the options available and decide on the optimal course of action for the organisation.

3.3.2 Records of this decision shall be recorded in the meeting minutes of the Environment and Energy Committee.

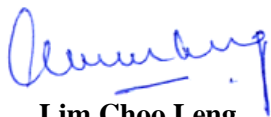
3.3.3 Where a course of action is decided which does not optimise energy performance, the justification for this decision shall also be recorded.

3.4 *Checking*

3.4.1 The implementation of this policy is subject to the internal audit programme.

3.4.2 The implementation of this policy is subject to external audit by the organisation's external auditors during scheduled IMS and EnMS audits.

Signed:



Lim Choo Leng
Managing Director

Date: 1 July 2012