

Energy, Environment and Sustainability of Green Buildings



**Shamzani Affendy Mohd Din
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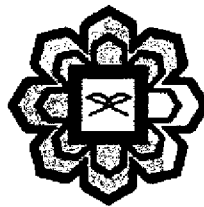
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ENERGY, ENVIRONMENT AND GREEN BUILDINGS

Editors

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10.1 INTRODUCTION

Green Building Projects in Malaysia, the building selected is Green Energy Office previously known as Pusat Tenaga Malaysia (Malaysia Energy Centre) or ZEO (Zero Energy Office). The building is certified as Malaysia's First Certified Green Building and officially Malaysia's first Green Building Index (GBI) Certified Building. It is also Malaysia's first completed green-rated office building.

Earlier it was planned as a showcase of energy-efficient building in 2005, it fulfilled this objective as the most energy efficient office building in the country, and in ASEAN, when completed targeted to be zero energy building consumption however due to some issues it cannot achieved zero but still the lowest office building that consumes energy as well as emit low carbon. Its impressive Building Energy Intensity of 35 kWh/m²/year is about a third of that of the previous most energy efficient building in the country, the LEO (Low Energy Office) Building of the now Ministry of Energy, Green Technology and Water.

Designed at a time when the awareness of green building is still at its infancy in this country, its energy efficient features scored full points under the Energy Efficiency and Innovation criteria of the Green Building Index (GBI). GBI is developed by Pertubuhan Arkitek Malaysia (PAM) and the Association of Consulting Engineers Malaysia (ACEM) Buildings are awarded GBI Malaysia ratings – Platinum, Gold, Silver or Certified – depending on the scores achieved, based on six key criteria.

- Energy efficiency
- Indoor environmental quality
- Sustainable site planning and management
- Material and resources
- Water efficiency