

BCA-SIA-SGBC International Tropical Architecture Design Competition 2016 BCA Green Mark Assessment for New Residential Buildings Overview Checklist

This checklist aims to only provide an overview of the assessment criteria for a new residential building to be certified under the BCA Green Mark Scheme. For detailed information on the BCA Green Mark for New Residential Buildings Version RB/4.1, its pre-requisites and point system, please refer to http://www.bca.gov.sg/GreenMark/green_mark_criteria.html

Part 1 – Energy Efficiency

- Enhance the overall thermal performance of building envelope to minimize the heat gain thus reducing the overall cooling load when required
- Enhance dwelling unit indoor comfort through the provision of good natural ventilation design and energy efficient air-conditioners
- Design for natural ventilation in common areas such as lift lobbies, corridors and staircases
- Encourage design that optimizes the use of effective daylighting to reduce energy use for artificial lighting
- Encourage the use of energy efficient lighting in common areas to minimize energy consumption from lighting usage while maintaining proper lighting level
- Encourage the use of energy efficient design and control of ventilation systems in car parks
- Encourage the use of lifts with AC variable voltage and variable frequency (VVVF) motor drive or equivalent and energy efficient features such as sleep mode features or equivalent
- Encourage the use of energy efficient features which are innovative and have positive environment impact
- Encourage the application of renewable energy sources such as solar energy in buildings

Part 2 – Water Efficiency

- Encourage the use of water efficient fittings that are certified under the Water Efficiency Labeling Scheme
- Provision of private meters to monitor the major water usage such as irrigation, swimming pools and other water features
- Provision of suitable systems that utilize rainwater or recycled water for landscape irrigation and use of plants that require minimal irrigation to reduce potable water consumption

Part 3 – Environmental Protection

- Encourage recycling and the adoption of building designs, construction practices and materials that are environmentally friendly and sustainable
- Promote use of environmentally friendly products that are certified by approved local certification body and are applicable to non-structural and architectural related building components
- Encourage greater use of greenery, restoration of trees to reduce heat island effect
- Encourage the adoption of environmentally friendly practices during construction and building operation

- Promote environmental friendly transport options and facilities to reduce pollution from individual car use
- Encourage the treatment of stormwater run-off before discharge to public drains

Part 4 – Indoor Environmental Quality

- Building design to achieve ambient internal noise level
- Minimize airborne contaminants, mainly from inside sources to promote a healthy indoor environment
- Minimize airborne contaminants from waste by locating refuse chutes or waste disposal area at open ventilation areas such as service balconies or common corridors
- Provision of adequate natural ventilation and daylighting in wet areas such as kitchens, bathrooms and toilets

Part 5 – Other Green Features

- Encourage the use of other green features which are innovation and have positive environment impact