

TECHNICAL UPDATES.

1.0 USE OF TERM BUILDING ENERGY INTENSITY (BEI)

Energy Usage Intensity (EUI) is updated to Building Energy Intensity (BEI) for the following tools:

- Non-Residential Building (NRB v3.2)
- Non-Residential Building (NRB v4.0)
- Existing Non-Residential Building (ENRB v3.3)
- Industrial Facilities (IND v1.1)
- Existing Industrial Facilities (EIND v1.1)
- Healthcare Facilities (HC v1.0)
- Energy Certificate (EC v1.0)

The formula for Building Energy Intensity (BEI) as follows:

$$BEI = [(TBEC - CPEC)] / (GFA \text{ excluding carpark} - GLA * FVR) * (NF/OH)$$

Where:

- TBEC = Total building energy consumption (kWh/year)
- CPEC = Car Park Energy Consumption in (kWh/year)
- GFA = Gross Floor Area (exclude car park area) (m²)
- GLA = Gross Lettable Area (m²)
- FVR = Floor Vacancy Rate (NLA) (m²)
- NF = Normalizing factor based on a typical weekly operating hour that is 52Hrs/week [only for office category]
- OH = Weighted weekly operating hours (hrs/week) [only for office category]

2.0 REVISION ON THE ENERGY USAGE INTENSITY (EUI) FOR RESIDENTIAL COMMON AREA

Energy Usage Intensity Calculation for common area revised using the following equation:

$$EUI = [(TBEC - CPEC) / GFA \text{ (common area excluding carpark)}]$$

Where:

- TBEC = Total building energy consumption for common area(kWh/year)
- CPEC = Car Park Energy Consumption in (kWh/year)
- GFA = Gross Floor Area for common area (exclude car park area) (m²)

3.0 UPDATE ON THE CARBON FACTOR FOR ALL TOOLS

For operational carbon calculation requirements, the carbon emission factor for energy and water to be used in calculation as follow:

Energy : 0.639 kgCO₂e/kWh (Peninsular Malaysia), 0.512 kgCO₂e/kWh (Sabah & Sarawak)

Water : 0.419 kgCO₂e/m³

4.0 VENTILATION AND DAYLIGHTING FOR COMMON AREA STAIRCASES

For the Ventilation and Daylighting requirement at common area to consider the BOMBA staircase.

5.0 REVISION OF WATER CALCULATOR V3.0

All project to use the Water Calculator v3.0. The calculator can be download from GreenRE website.

6.0 EXISTING NON-RESIDENTIAL BUILDING (ENRB) V3.3

For mixed development projects, each type of development needs to comply with BEI by category of the building as specified in the Existing Non-Residential Building Guideline (ENRB v3.3)

7.0 BUILDING USER GUIDE AND SUSTAINABLE OPERATION MANAGEMENT GUIDELINE

Building User Guide (BUG) and Sustainable Operation Management Guideline (SOMG) is a pre-requisite requirement for all GreenRE certification tool.

8.0 ANNOUNCEMENT OF THE GREENRE ENERGY CERTIFICATE

GreenRE are pleased to announce the launch of our newest Certification: GreenRE Energy Certificate. The guideline is available in the GreenRE website