

1.0 NON – RESIDENTIAL BUILDINGS

➤ **NRB 1-1 Thermal Performance of Building Envelope (OTTV)**

Overall Thermal Transfer Value (OTTV) for Non-Residential building need to be calculated in accordance to MS1525:2019.

➤ **NRB 1-2 Minimum System Efficiency**

Minimum system efficiency for buildings using air-cooled water plant or unitary air-conditioner updated as follows:

GreenRE Rating	Building Cooling Load (RT)	
	< 500	≥ 500
	Efficiency (kW/RT)	
Bronze	1.1	1.0
Silver	1.0	1.0
Gold	0.85	Not applicable ⁽ⁱ⁾
Platinum	0.78	

➤ **NRB 1-2 Mixed Mode Spaces**

Points scoring and fulfilment of pre-requisite for mixed mode ventilated spaces are as follows:

- If more than >90% of space (NLA excluding common areas) utilizes one mode of ventilation, pre-requisite for that form of ventilation only applies.
- Points scoring to be pro-rated based on modes of ventilation provided. (e.g if 90% NV and 10% airconditioned – points for NV scoring to be 90% of available points (NRB 1-3 & NRB 1-4) and 10% from NRB 1-1 & NRB 1-2).
- OTTV <50 w/m² will be applicable for all air-conditioned spaces exceeding 1000m².
- Roof u-value requirements mandatory for all building types.

➤ **NRB 1-2 Provision of Air-conditioning and Compliance to Pre-requisites**

Points scoring and fulfilment of pre-requisite for air-conditioning will be allowed in the following scenarios:

- Provided by developer for NLA.
- Not provided by developer but included as part of green lease AND inclusion in green fit out guidelines and building user guide.
- Not provided by developer but included as obligation to purchaser AND inclusion in green fit out guidelines and building user guide.

Fulfilment of pre-requisite for air-conditioning without point scoring:

- Included in green fit out guidelines and building user guide.
- For gold and platinum projects, savings in energy model to reflect efficiency of air-conditioners proposed in green fit out guidelines.

2.0 RESIDENTIAL BUILDINGS

➤ **Roof U-Value Requirements**

Roof u-value for all high rise and landed residential buildings to not exceed the following limits:

Roof Weight Group	Maximum U-Value (W/m ² K)
Light (Under 50 kg/m ²)	0.4
Heavy (Above 50 kg/m ²)	0.6

➤ **RES 1-2 Provision of Air-conditioning and Compliance to Pre-requisites**

Points scoring and fulfilment of pre-requisite for air-conditioning will be allowed in the following scenarios:

- Provided by developer for all dwelling spaces (i.e living room and bedrooms).
- Provided by developer in either living room or bedrooms AND inclusion in green fit out guidelines and building user guide.
- Not provided by developer but included as a clause in sales and purchase agreement AND inclusion in green fit out guidelines and building user guide.

Fulfilment of pre-requisite for air-conditioning without point scoring:

- Included in green fit out guidelines and building user guide

➤ **RES 1-2 Provision of Ceiling fans and Compliance to Pre-requisites**

Points scoring and fulfilment of pre-requisite for ceiling fans as follows:

- Must be installed by developer AND included in green fit out guidelines.
- Points will be pro-rated based on % of dwelling spaces applied.

Fulfilment of pre-requisite for ceiling fan without point scoring:

- Included in green fit out guidelines and building user guide.

3.0 GENERAL

➤ **Renewable Energy**

The credit scored for renewable energy provision shall not result in a double grade jump in GreenRE rating (i.e. from GreenRE Bronze or Silver to Gold or Platinum)

➤ **Ventilation Simulation**

Assistance from the ceiling fan is allowable to improve the thermal comfort of a space whereby ventilation simulation shall prove that unassisted ventilation (NV) complies with the minimum requirement of 0.14 m/s wind velocity.

➤ **Saltwater Chlorination System**

The use of saltwater chlorination systems will no longer be eligible for innovation credits.