

4	ENERGY USE	4.5 BUILDING DESIGN FOR ENERGY EFFICIENCY
		EU 13 ENERGY EFFICIENT BUILDING LAYOUT
	EXCLUSIONS	None.
	OBJECTIVE	To enhance the building energy efficiency through environmentally considered planning and architectural design.
	CREDITS ATTAINABLE	2
	PREREQUISITES	None.
	CREDIT REQUIREMENT	<p>1 credit for demonstrating the fulfillment of at least 3 items out of the following strategies;</p> <p>2 credits for demonstrating the fulfillment of all of the following strategies:</p> <p>For residential developments:</p> <ul style="list-style-type: none"> a) To demonstrate compliance, energy simulation must be provided to show that the average solar irradiance of all facades is lower than 395 kWh/m²/ apr-oct; b) Compliance is demonstrated by showing that a site permeability of 20% can be achieved between assessed building and nearby buildings/obstructions; c) Demonstrate that 20% of the habitable space can utilise natural ventilation either by the prescriptive approach or the performance approach; d) Demonstrate that the OTTV of habitable spaces is less than or equal to 30 W/m²; and e) Demonstrate that the VDF of habitable spaces are 50% more than the baseline requirements. <p>For all building types excluding residential:</p> <ul style="list-style-type: none"> a) Consideration of built form and building orientation to enhance energy conservation; b) Consideration of optimum spatial planning to enhance energy conservation; c) Consideration of building permeability provisions of building features to enhance the use of natural ventilation; d) Provision of fixed or movable horizontal/vertical external shading devices; and e) Provision of movable external shading devices for major atrium facade windows or skylights.
	ASSESSMENT	<p>The Client shall submit documentation to demonstrate compliance with the strategy indicators:</p> <ul style="list-style-type: none"> • Clear definition of the objectives of each energy efficient building design, features, evaluated options, applications and verification of the design strategies; 1 • Annual energy saving estimation; 2 • Other relevant supporting documentation for improved and innovative ideas; 3 • Relevant information to demonstrate sufficient effort has been made on the required provisions and considerations, as well as the final design solution that addressed the commitments; and 4

Where at least 3 items are achieved the credit shall be awarded. The second credit shall be awarded for all strategies achieved. 5



Circular Letter No.: 2017.140

Issue Date: 26 September 2017

Application: BEAM Plus NB Version 1.2

Effective Date: 26 September 2017

EU 1(b) Appendix 8.8.1.3 Building Envelope: Performance Approach and
EU 13 Energy Efficient Building Layout

This Circular Letter announces an update to the Overall Thermal Transfer Value (OTTV) calculation methodology for the captioned credits as follows:-

For this assessment, the OTTV is calculated only for the entire external walls/facades which connect to habitable spaces and non-habitable spaces, but not for the roofs.

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Mr KM So
Chairperson of Standards Sub-committee