

Part 1 Energy Efficiency

NRB 1-1 Building Envelope – OTTV

Actual Assessment Submission Site Verification Submission

Criteria	Credit Available	Credit Claimed
Overall Thermal Transfer Value	15	

Strategies:

Documentary Evidences:*Order of documents to be submitted accordingly and clearly labeled.*

	Actual Assessment	Submitter	Assessor
1.	Site plan with clearly demarcated the orientation of the building.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Architectural elevation drawings showing the composition of the different façade or wall systems that are relevant for the computation of OTTV.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Glazing specification showing the U Value and SC Value.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Window and door schedule.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Detailed area (m ²) tabulation of fenestration and wall for every façade showing the window to wall ratio (WWR).	<input type="checkbox"/>	<input type="checkbox"/>
6.	Calculation of U Value for all type of external walls.	<input type="checkbox"/>	<input type="checkbox"/>
7.	Calculation of the Shading Coefficient for external shading device.	<input type="checkbox"/>	<input type="checkbox"/>
8.	OTTV calculation for each facing wall.	<input type="checkbox"/>	<input type="checkbox"/>
9.	A drawing showing the cross-sections of typical parts of the roof construction, giving details of the type and thickness of basic construction materials, insulation and air space	<input type="checkbox"/>	<input type="checkbox"/>
10.	The U-value of the roof assembly and technical specification of the roof insulation (if any)	<input type="checkbox"/>	<input type="checkbox"/>

In the case of an air-conditioned building, the concept of Roof Thermal Transfer Value (RTTV) is applied if the roof is provided with skylight and the entire enclosure below is fully air-conditioned.

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|----|--|--------------------------|--------------------------|
| 1. | RTTV Calculation (if applicable) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Skylight specification showing the U Value and SC Value. | <input type="checkbox"/> | <input type="checkbox"/> |

	Site Verification	Submitter	Assessor
1	As-built Site plan with clearly demarcated the orientation of the building.	<input type="checkbox"/>	<input type="checkbox"/>
2	As-built architectural elevation drawings showing the composition of the different façade or wall systems that are relevant for the computation of OTTV.	<input type="checkbox"/>	<input type="checkbox"/>
3.	As-built architectural plan layouts highlighting the areas included in the OTTV calculation.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Purchase orders/delivery orders, for the brands/models of the installed glazing, stipulating the U-value and SC specifications.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Product catalogue of the materials properties that are used for the façade or external wall systems.	<input type="checkbox"/>	<input type="checkbox"/>
6.	Detailed area (m ²) tabulation of fenestration and wall for every façade showing the window to wall ratio (WWR).	<input type="checkbox"/>	<input type="checkbox"/>
7.	Window and door schedule.	<input type="checkbox"/>	<input type="checkbox"/>
8.	Calculation of the Shading Coefficient for external shading device.	<input type="checkbox"/>	<input type="checkbox"/>
9.	Calculation of U Value for all type of external walls.	<input type="checkbox"/>	<input type="checkbox"/>
10	OTTV calculation for each facing wall.	<input type="checkbox"/>	<input type="checkbox"/>
11.	As built drawing showing the cross-sections of typical parts of the roof construction, giving details of the type and thickness of basic construction materials, insulation and air space	<input type="checkbox"/>	<input type="checkbox"/>
12.	The U-value of the roof assembly and technical specification of the roof insulation (if any)	<input type="checkbox"/>	<input type="checkbox"/>
13.	Purchase order / Delivery order of the roof insulation materials	<input type="checkbox"/>	<input type="checkbox"/>
14.	Describe any deviations or changes from AA submission.	<input type="checkbox"/>	<input type="checkbox"/>

In the case of an air-conditioned building, the concept of Roof Thermal Transfer Value (RTTV) is applied if the roof is provided with skylight and the entire enclosure below is fully air-conditioned.

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|----|---|--------------------------|--------------------------|
| 1. | RTTV Calculation. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Skylight specification showing the U Value and SC Value and its purchase or delivery order. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | Describe any deviations or changes from AA submission. | <input type="checkbox"/> | <input type="checkbox"/> |