



ABSTRACT

Urban Development - Identifying opportunities for Mainstreaming Energy Efficiency and Climate Resilience - Guidelines to Tamil Nadu Housing Board and Tamil Nadu Urban Habitat Development Board - Issued.

Housing and Urban Development [UD4(1)] Department

G.O.(Ms).No.57

Dated: 19.04.2022

சுபகிருது ஆண்டு, சித்திரை 6,
திருவிடைமூவுர் ஆண்டு 2053.

Read:

From the Member-Secretary, Chennai Metropolitan Development Authority, letter No. C3(S)/15623/2021, dated 08.04.2022.

ORDER:

In the letter read above, the Member-Secretary, Chennai Metropolitan Development Authority has furnished the following proposal towards identifying opportunities for mainstreaming Energy Efficiency and Climate Resilience:-

All Buildings (or Hotels, Hospitals and Commercial Office Buildings) having connected load of 100 kW or contract demand of 120 kVA and higher- or built-up area of 2000 m² or more must meet following requirements.

- i) All external vertical walls or any external walls tilted at 60° angle or greater from horizontal, above and below grade should have maximum wall thermal transmittance value called as U value of ≤ 0.44 (W/m².K).

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- ii) All external operable or fixed windows including curtain walls should have 600 mm of horizontal projection at 2100 mm from each floor of each storey above grade or at lintel level.

(or)

Should have maximum glass Solar Heat Gain Coefficient (SHGC) of ≤ 0.27 .

- iii) All external operable or fixed windows including curtain walls should have maximum wall thermal transmittance value called as U value of ≤ 3.00 (W/m².K).
- iv) All external operable or fixed windows including curtain walls should have minimum glass visible light transmittance value (VLT) ≥ 0.27 .
- v) All horizontal roof or any other form of roof must have maximum roof thermal transmittance value called as U value of ≤ 0.33 (W/m².K).
- vi) All horizontal roof or any other form of the roof must have an initial solar reflectance of no less than 0.70 (ASTM E903-96) and an initial emittance no less than 0.75 ASTM E408-71-1996).

All affordable housing developments should have a maximum value of Residential Envelope Transmittance Value (RETV) for building envelop (except roof) of 15W/m². The roof should have a U value of 1.2 W/m².K (maximum).

2. The Member-Secretary, Chennai Metropolitan Development Authority has also stated that the recommendations may be considered for inclusion in the relevant items relating to the Building Rules.

3. The Government have carefully examined the proposal of the Member-Secretary, Chennai Metropolitan Development Authority and direct the Tamil Nadu Housing Board and Tamil Nadu Urban Habitat Development Board to follow the following guidelines. In the first instance, as these guidelines are aimed at achieving energy efficiency and climate resilience in constructions, for the buildings that are under construction and also for the constructions to be taken up in future by Tamil Nadu Housing Board and

Tamil Nadu Urban Habitat Development Board, pending amendments to Tamil Nadu Combined Development and Building Rules, 2019:-

All Buildings of Tamil Nadu Housing Board and Tamil Nadu Urban Habitat Development Board having connected load of 100 kW or contract demand of 120 kVA and higher or built-up area of 2000 m² or more must meet following requirements.

- i) All external vertical walls or any external walls tilted at 60° angle or greater from horizontal, above and below grade should have maximum wall thermal transmittance value called as U value of ≤ 0.44 (W/m².K).
- ii) All external operable or fixed windows including curtain walls should have 600 mm of horizontal projection at 2100 mm from each floor of each storey above grade or at lintel level.

(or)

Should have maximum glass Solar Heat Gain Coefficient (SHGC) of ≤ 0.27 .

- iii) All external operable or fixed windows including curtain walls should have maximum wall thermal transmittance value called as U value of ≤ 3.00 (W/m² .K).
- iv) All external operable or fixed windows including curtain walls should have minimum glass visible light transmittance value (VLT) ≥ 0.27 .
- v) All horizontal roof or any other form of the roof must have maximum roof thermal transmittance value called as U value of ≤ 0.33 (W/m².K).
- vi) All horizontal roof or any other form of roof must have an initial solar reflectance of no less than 0.70 (ASTM E903-96) and an initial emittance no less than 0.75 ASTM E408-71-1996).

All affordable housing developments should have a maximum value of Residential Envelope Transmittance Value (RETV) for building envelop (except roof) of 1.5 W/m². The roof should have a U value of 1.2 W/m².K (maximum).

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4. The Tamil Nadu Housing Board and Tamil Nadu Urban Habitat Development Board are instructed to engage suitable experts with adequate domain knowledge on outsourcing basis, to ensure the compliance of the above recommendations in their respective construction projects.

(BY ORDER OF THE GOVERNOR)

**HITESH KUMAR S. MAKWANA
PRINCIPAL SECRETARY TO GOVERNMENT**

To

The Additional Chief Secretary to Government,
Municipal Administration and Water Supply Department,
Chennai - 600 009.

The Member-Secretary,
Chennai Metropolitan Development Authority,
Chennai - 600 008.

The Director of Town and Country Planning,
Chennai - 600 107.

The Managing Director,
Tamil Nadu Housing Board,
Chennai - 600 107.

The Managing Director,
Tamil Nadu Urban Habitat Development Board,
Chennai - 600 005.

Copy to:

The Special Personal Assistant to Hon'ble Minister
(Housing and Urban Development),
Chennai - 600 009.

The Private Secretary to Principal Secretary to Government,
Housing and Urban Development Department,
Chennai - 600 009.

The Housing and Urban Development (HB3, UHD1, UHD2) Department,
Chennai - 600 009.

The Housing and Urban Development (OP1/Budget) Department,
Chennai - 600 009.

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//FORWARDED BY ORDER//

SECTION OFFICER.

19/4/22