

GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
LOK SABHA

STARRED QUESTION NO. *183

TO BE ANSWERED ON JULY 04, 2019

GLASS FACADES IN BUILDINGS

No.*183 SHRI MANOJ KOTAK:

Will the MINISTER OF HOUSING AND URBAN AFFAIRS be pleased to state:

- (a) whether energy conservationists are cautioning against growing number of buildings with glass facades which affect the global warming;**
- (b) if so, whether any norms have been framed for allowing glass façade in buildings, especially to address safety and security concerns as they lead to quick increase in temperature;**
- (c) if so, the details thereof;**
- (d) whether a complete glass building consumes electricity four times more than a normal building as per study done by IIT Delhi; and**
- (e) if so, the details thereof?**

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF HOUSING AND URBAN AFFAIRS
(SHRI HARDEEP SINGH PURI)

(a)to (e): A Statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED
QUESTION NO.*183 FOR 04.07.2019 REGARDING GLASS FACADES
IN BUILDINGS.**

(a) No such reference has been received by the Government.

(b)&(c)The Bureau of Indian Standards (BIS) has issued Code of Practice for use of glass in buildings (IS 16231) in 2019 covering aspects like general methodology for selection, energy and light, fire and loading and safety related to human impact.

The National Building Code 2016 has provisions for use of glass based on their thermal properties to optimize solar load while also taking care of the safety concern in buildings.

Further, Ministry has framed Model Building Bye Laws 2016, which prescribes norms and standards for using glass façades in buildings to address quality, fire safety and security issues.

In addition, the Energy Conservation Building Code (ECBC) 2017 prescribes minimum energy performance standards for building envelopes including glass façades for the parameters like energy and heat transmission, solar heat gain and visible light transmission. ECBC compliance has been recommended for commercial buildings.

(d) & (e) As per study done by Shri M.C. Singh and Shri S.N. Garg of Centre for Energy Studies, IIT Delhi in July, 2011 titled ‘Suitable glazing selection for glass curtain walls in tropical climates of India’, though glass façade leads to higher energy consumption in buildings, the actual quantum of consumption depends on various factors viz. building type, glazing type, glazing orientation and climate type.
