

The effect of solar energy on interior design leading to zero energy buildings

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Abstract:

Energy of all kinds forms the backbone of our lives and the basis for our continuation, as one aspect of life is not without one of these types. 80% of the energy consumed globally comes from non-renewable sources such as oil and gas, and the day may come when it is implemented, as it is the primary source of a second gas emission. Carbon dioxide is directly linked to climate change, which is the most prominent issue facing humanity. Most statistics indicate that the consumption of residential buildings constitutes about 30% to 40% of the total energy resources in the world, and contributes to the emission of 33% of carbon dioxide, in addition to bills. High and increasing energy ba They will continue, all of which made the improvement of energy consumption and self-production in these buildings very important, so most research went to Zero-energy buildings (ZEB).

Research problem: relying on non-renewable energy such as electric energy, and the consequent energy shortage and increased carbon dioxide emissions that negatively affect the clean environment.

Electricity generation transparent glass is our latest fast growing solution. It boils down to using solar panels to replace traditional building materials in some parts of the building such as windows and ceilings, skylights, balcony fences or facades, car park awnings and even walls. It can also be combined as an integral part of the building design as a component against wind and breakage. These advantages make it one of the fastest growing sectors in the photovoltaic industry. Technology is increasingly used in the construction of new buildings to give the buildings a wonderful aesthetic shape as well as being heat-insulated and shaded to various degrees along with its main role as a main or additional source of electricity for the building. On the other hand, some old buildings can be modified by replacing windows, skylights, or balconies, etc. with components. This technique is the ideal solution for towers with glass fronts and for buildings and hangars for sectors that operate in the desert, such as the military sectors, which need combined energy to operate air-conditioners and lighting, etc

Keywords:

Solar energy, zero energy building, façade standards