

New building codes to slash energy bills by 50%

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Abu Dhabi: Electricity bills for residents in new buildings in the emirate will be reduced by almost 50 per cent as Abu Dhabi will soon implement the International Energy Conservation Code (IECC), officials told *Gulf News*.

The forthcoming codes will restrict excessive energy consumption practices such as the extravagant use of glass on the walls of buildings

The Department of Municipal Affairs (DMA) is planning to implement the International (Building) Code (I-code) including the IECC by early next year.

The codes restricting excessive energy consumption practices such as the excessive use of glass on the walls of buildings (which triggers more air conditioning) will be applicable to new buildings and in the renovation of existing ones. A large number of residents will be able to enjoy the benefits of the codes because buildings in Abu Dhabi are fully renovated every 15 years on average.

Moreover, the existing population of about 1.5 million is expected to grow by 5 million by 2030, which means that the codes will apply to a huge number of new buildings.

Ahmad Sharif, Undersecretary of the DMA, said the Abu Dhabi Building Codes will improve construction standards of buildings across the emirate, creating more cost-effective structures with greater durability and high health and safety standards. The codes will raise the level of professionalism throughout the construction industry and this

will have a positive outcome for our economy, growth, and development as an emirate, he said.

Ideal consumption

The existing power consumption in the region is approximately 250KWh (kilowatt-hour)/m²/ year for an apartment building (figures vary between villas, apartments and offices), Ali Bukair, a policy consultant at the DMA said.

A survey revealed that air conditioning costs about 60 per cent of energy consumption in the emirate, lights cost up to 30 per cent and electrical appliances up to 10 per cent, the official said.

According to a UN study for the GCC region, the ideal energy consumption theoretically attainable upon applying the international codes would be 132KWh/m²/year in residential buildings and 96KWh/M²/year in office buildings, he explained. DMA's ongoing research has shown that 90KWh/m²/year is easily achievable through an energy conscious lifestyle without compromising comfort, Bukair said.

The UN study also mentions developed countries like Germany have reduced energy consumption to less than 70kWh/square metre.

The energy code will not permit the use of more than 30 per cent of glass on buildings, Matthew Plumbridge, consultant, Environmental and Sustainability Planning at the DMA said.

The new codes will not cause more burden on the economy because the operational costs of the buildings will go down considerably, Eric Makela, a US expert who gave training on the codes said. The cost of the construction of a building is a few per cent or a fraction of the cost of its lifelong operation, he said.

"The longer it survives the smaller the construction cost becomes. Energy conservation measures can save the operational costs considerably", Makela said.

A 14-member committee of the DMA is in touch with Masdar [the zero carbon city], Abu Dhabi Distribution Company (ADDC) and the Environment Agency-Abu Dhabi to discuss the possibility of installing renewable energy producing systems (like solar energy) on new buildings, the officials said. They clarified so far no mandatory provisions for producing energy have been made.

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