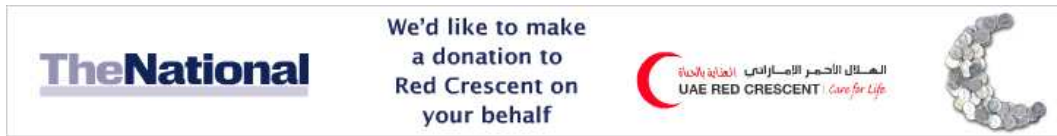


TheNational



Green building code aims to cut energy bills by 40%

Bradley Hope

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Abu Dhabi will introduce a mandatory green building code this week that could see energy bills cut by 40 per cent in new homes to be built across the emirate.

As of September 1, all new buildings must meet sustainability and urban design requirements to receive approval for construction to begin. The Estidama Pearl Rating System, developed by the Urban Planning Council (UPC), mandates that all buildings achieve at least a one-pearl rating.

That should mean a 41 per cent cut in energy use and 26 per cent reduction in water use, according to the UPC. There will also be a small increase in capital cost, but that is likely to be wiped out by lower utility expenses.

The energy savings under Estidama could rise to Dh1,440 for an average individual, but would grow even higher for a community where residents also pay for the cooling and electrical requirements of jointly owned property, such as lobbies.

Over the next five months, the UPC is running 130 training sessions to bring developers, engineers and architects up to speed with the new requirements.

Estidama will initially have the biggest effect on government villas, of which there are more than 17,000 planned for construction over the next five years.

But the rating system will also affect buildings planned throughout the capital, such as Al Reem Island, Sowwah Island and the Corniche.

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All government buildings will be required to meet the requirements of a two-pearl rating.

"The strategy is to use the government sector to push it through at first," said Shezan Amiji, the managing director of the emissions reduction firm EcoVentures.

"The most important thing they have done is to make it part of the building registration requirements." The UPC is also using Estidama as a means of regulating urban design in general, with buildings required to meet minimum cultural and community requirements as well as environmental concerns. All buildings should contribute to a better urban experience, said John Madden, a senior planner at the UPC.

"We want buildings to utilise good urban design to reduce the solar path or heat that is generated within an urban area in general with shading, positioning and building orientation," Mr Madden said.

The UPC chose to create its own system rather than introduce established codes, such as Leadership in Energy and Environmental Design (Leed) in North America and the BRE Environmental Assessment Method (Breeam) in the UK, because of Abu Dhabi's unique environmental issues.

Buildings in the capital require more air conditioning, and therefore energy and water use, than those in more moderate climates.

The Estidama certification process would become part of the Abu Dhabi Municipality's permit process, which meant that it would not be an onerous addition for developers, said Saood al Junaibi, the director of development review and urban design at the UPC.

One unique feature is that a building is monitored over its life for compliance. Rather than requiring a single certification, as with Leed and Breeam, the building is reviewed during design, construction and operation.

"There are certain thresholds and targets that are set at the beginning," Mr al Junaibi said.

The UPC is also looking at incentives for developers to strive for higher pearl ratings and it is in the early stages of discussions on Estidama guidelines for bringing older buildings up to the one-pearl standard on a voluntary basis. And even buildings already well under way could still meet the one-pearl requirement, said Mr Madden.

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