# Highly Sustainable 17-Story Beacon Proposed for Hemel Hempstead

Hemel Hempstead, United Kingdom – 17 October 2016 

The high-rise is going green. It seems hard to believe that a tall, hulking block made from huge amounts of material and consuming huge amounts of energy could ever be anything other than bad for our fragile environment; yet, conventional wisdom is being challenged by architects and scientists who are attempting to foster a new breed of "eco towers."

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Sustainable skyscrapers around the world have included Italy's Bosco Verticale and China's Shanghai Tower; but back in the UK, the team behind the 17-story Beacon in the Hertfordshire commuter town of Hemel Hempstead are trying to go one better – and they believe that they have found the recipe for the greenest high-rise residential building in the country. "It should generate as much energy as it needs for its consumption, so it essentially becomes self-sustaining," shared Lumiere Developments Commercial Director Ambi Singh.

"It's the elegant combination of renewable-energy generation with energy-conservation strategies that creates a building that has been modeled to use less than 80 percent of the heat and electricity requirements of a normal residential tower," Singh explained.

The building, designed by Leyburn, North Yorkshire-based eco architects Wardman Brown, will have the highest density "solar farm" in the UK, according to the developer. "Solar panels are elegantly incorporated into the external architecture of the building, creating a "solar ledge" that wraps around each level of the building, on the outside of the balcony of each apartment," said Singh, who has experience in the energy and architectural sectors.

With power generated from those solar panels and by using the heat of the building, residents will get free electricity and hot water for five years. Add in LED lighting, triple glazing, natural ventilation systems, and heat harvested from the ground, and you have a block that uses and loses much less heat and energy than is usual. "Think of peak load in the morning when everyone has a shower. Sixty percent of that heat will be recovered from the shower system – that's usually just all lost," said Singh.

"Potable and non-potable water consumption is significantly reduced by use of a grey-water recovery system, which collects rainwater both at the communal roof terrace level, as well as at each solar ledge level; the roof gardens will have a large-scale water attenuation tank, then water will be pushed through a filtration system to remove contaminants, so all this water can be reused for washing clothes or flushing toilets."

For more on this story, go to The Telegraph.

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