

CHAPTER 4: ONSITE SYSTEMS: GENERATION & RENEWABLE ENERGY

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504.03 ON SITE RENEWABLE ENERGY – ELECTRICAL POWER GENERATION



INTENT

To reduce utility energy demand for buildings by harnessing solar energy on site and save energy costs and environment.

REQUIREMENT

For Golden and Platinum Sa'fa and for all new buildings, the electrical power shall be generated on-site using solar panels. The power generation shall be 10% of the electrical load of the building (excluding electrical loads for fire extinguishing system, air conditioning units and air conditioning system pumps).

If sufficient space is not available to achieve the above percentages, then the electrical power shall be generated to cover 30% of the lighting load of the common areas, provided that the capacity of the solar panels shall not be less than 20 kWp.

SIGNIFICANCE

Harnessing solar power is one of the key elements to move towards alternate energy sources. Global trend of utilising renewable energy is increasing and use of the potential energy source for different industrial, residential and commercial is viable with the development of technology. Solar energy is a form of clean energy and also reduces green-house gas emissions.

UAE is located between longitudes 22° and 26.5° North and latitudes 51° and 56.5° East. Plentiful solar radiation and surface temperature available across the region is favorable for the production of the solar energy throughout the year.

To achieve the goal of Dubai vision for a smart and sustainable city, DEWA launched Shams Dubai smart initiative to encourage building owners to install photovoltaic solar panels to generate electricity from solar power. The electricity is used on-site, and surplus energy generated from the site can be fed into DEWA's network and this surplus energy will be credited and used to off-set future consumption of electricity.

Under Dubai Clean Energy Strategy, Dubai aims to produce 75% of its energy requirements from clean sources by 2050. The strategy also aims to make Dubai a global centre of clean energy and green economy.

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(2) in Section One - Administration for detailed applicability levels.