



To achieve a more sustainable built environment, Dubai has identified the following important consideration regarding these new regulations:

- Reduce Energy, Water and Carbon Emissions The primary focus for Al Sa'fat is to address issues related to energy and water demand, increase energy security, reduce infrastructure costs and mitigate carbon emissions.
- Responsiveness to Dubai Climate This single factor is a significant issue for building construction in areas such as building's core and shell, its mechanical components, air conditioning and materials used. As an example, sustainable buildings in Dubai aims to reduce the heat impact with Heat Island strategies, light colours and hear rejection approaches.
- Pollution reduction or elimination A building and activities related to the building should attempt to minimise or eliminate pollution and seek to protect the environment within the building site and around it. As an example, light pollution and even condensate drainage should be controlled.
- Minimising and conserving resources Natural resources create the basic needs for life and form the basis for all man-made materials. Minimising and effectively using these resources form the principle of good stewardship in sustainability. Thus, sustainable buildings in Dubai encourage to recycle materials, use green products and reduce demolition and construction waste, among others.

## **Economic**

In a lifespan of a building, many economic impacts are associated with the construction and operation of the building.

An evaluation of costs and benefits is necessary to examine the efficiency for the life cycle of building's development. The ability to quantify cost helps to maximise the benefits in developing sustainable cities. These impacts are not related to buildings but also to the site and surrounding environment. Economic impacts occur not only during the construction but also before and after construction. Each building has the potential to have an impact on its neighbours, local community as well as the Emirate of Dubai. To achieve sustainability, the following measures have been identified to assess the economic impact of buildings.

- Efficiency Identified as the optimum use or productivity of any mechanical, structural or building component and when no further improvements can be made. Efficiency seeks to maximise the value of materials or systems. As an example, this can lead to more efficient elevator, better control systems and the water efficient fixtures for buildings in Dubai.
- Cost of benefit throughout the building life cycle This includes costs and benefits during the
  phases of design, construction, operation and maintenance of the building. Efficient techniques
  or maintaining mechanical systems or ensuring that commissioning is accomplished can have
  a positive economic impact.
- Balancing performance This economic principle applies to balancing performance with the
  most cost-effective response based on the conditions prevailing in Dubai. Use of specific
  energy performance for glazing, prevention of cooling from air loss and condensate recovery
  are various methods for balancing performance in the building.