



The Economics of Green Buildings

Exclusive analysis on economic returns to the investments in green buildings

The green building construction contributes to both global and building economic benefits. In a study carried out by Booz Allen Hamilton, prepared by US Green Building Council, the finding indicates that the green construction spending is expected to grow 15.1 per cent, year over year for 2015-2018. In addition, the LEED construction spending is expected to grow 12.3 per cent year over year for 2015-2018.

Whereas the major tangible economic benefit of a green building is energy and water savings – efficiency driven designs and green technologies reduces the operational costs of the building to the tune of 20 to 30 per cent easily, said M Selvarasu, Director at LEAD Consultancy & Engineering Services (I) Pvt Ltd.

Nandana Dilip Kumar, Senior Manager – Sustainable Designs at LEAD Consultancy & Engineering Services (I) Pvt Ltd believes, “There can be significant impact on the property values where prices or rental can be higher than any conventional building construction. Also lowered dependency on the grid power and water supply from local bodies intern supports minimising

use of existing infrastructure facility provided by local government to large extent. This leads to overall stable operation of the city, if green concepts are taken for adoption across the city development.”

According to M Anand, Principal Counsellor and a team member of Indian Green Building Council (IGBC) of CII, a green building is one which uses less water, improves energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building.

Anand explains the benefits of green buildings as:

- 40 to 60 per cent savings in electricity consumption
- 20 to 30 per cent savings in water consumption
- Addresses national priorities: Conservation of natural resources, water efficiency and energy efficiency, handling of municipal waste and health and well-being of the citizens.
- Intangible benefits: Enhanced ventilation and better views and day lighting.
- Enhanced health and productivity of occupants.

Indian Green Building Council (IGBC) is spearheading the green building movement in India since 2001. As on August, India with over 3.86 billion sq. ft. of green building footprint is the second country in the world in terms of largest registered green building

Table 1 illustrates the energy savings in some of the IGBC rated green buildings

(Source: IGBC)

| Building | Sq.ft | Normal Building (kWh) | Actual Building (kWh) | % Reduction | Annual Energy Savings (₹ in Lakhs) |
|---------------------------------------|----------|-----------------------|-----------------------|-------------|------------------------------------|
| SOB L Infosys, Hyderabad | 3,66,000 | 48,80,000 | 16,12,000 | 60 | 176 |
| Saucon Dnc Earth, Pune | 7,63,000 | 74,34,000 | 48,56,000 | 33 | 140 |
| Wipro, Gurgaon | 1,75,000 | 48,00,000 | 31,00,000 | 40 | 103 |
| IFC, Gurgaon | 1,70,000 | 35,00,000 | 20,00,000 | 45 | 90 |
| GE India Technology Centre, Bangalore | 1,30,000 | 55,15,300 | 44,64,700 | 19 | 63 |
| CII Godrej GBC, Hyderabad | 20,000 | 3,80,000 | 1,30,000 | 63 | 9 |



Mala Singh, Chairperson and MD, PEC Greening India

Payback period of a green building is indicating a decreasing trend over the years from payback period of 7 years in 2003 to about 1 year or less in 2015.