



SIDBI Training Center

Location	: 15, Ashok Marg, Bhubaneswar
Site Area	: 2026m ²
Built up Area	: 3452m ²
Energy Consumption Reduction	: 35.2% reduction in energy consumption compared to GRIHA benchmark
EPI	: 79.6 KWh/ m ² /year
Renewable Energy	: Rated capacity of solar PV installed on site is 12 kWp
GRIHA provisional rating	: 3 Stars
Year of completion	: 2014

The following strategies were adopted to reduce the building impact on the natural environment:

Sustainable Site Planning

- Fertile soil was preserved and reused for site landscaped areas
- The project site was a barren site with no prominent vegetation or any other natural formation. Several large trees and shrubs are planted inside and outside the campus to avail shading and buffer from roads.

Reducing water consumption

- Use of low flow and flush fixtures to reduce building annual water demand by 42.52% compared to GRIHA base case

Reducing energy consumption (compared to GRIHA benchmarks) while maintaining occupant comfort.

- For achieving visual comfort:
 - Window to Wall ratio (WWR) is 16.2%
 - Solar Heat Gain Coefficient (SHGC) of the fenestration conforms to the benchmarks of Energy Conservation Building Code (ECBC) 2007. Glazing of SHGC 0.27 has been used
 - 93% of total living area is day-lit and meets daylight factor as prescribed by National Building Code (NBC)
- For achieving thermal comfort:
 - VRF system of 100HP capacity has been installed in the building to achieve thermal comfort

Renewable energy technologies installed on site

- Solar PV panels installed at SIDBI have an installed capacity of 12kWp
- 100% indoor artificial lighting demand is catered by installed RE
- Annual electricity generation from solar photovoltaic plant is 17,729KWh/year

Use of low energy materials

- Use of PPC in structural concrete and in plaster and masonry mortar and use of fly ash bricks for block work
- Use of mineral board and gypsum board false ceiling for 100% of the area
- Use of pre-laminated particle board doors, FRP (Fire-glass reinforced polymer) doors and aluminum door and window frames
- Use of vitrified tiles, ceramic tiles and kota stone for flooring

Integrated Design Team

Client	: SIDBI (Small Industries Development Bank of India), Bhubaneswar
Project Coordinator	: Shri M K Pandey, GM(Premises), SIDBI
Principal Architect	: Shri Pradip Sen, Skematic Consultants, Kolkata
Landscape Architect	: Shri Pradip Sen, Skematic Consultants
Project Management Consultant	: Hindustan Steel Works Construction Limited (HSCL) Bhubaneswar
Structural Consultant	: Dr. Arundeb Gupta, Skematic Consultants
Electrical Consultant	: Mr. Amulya Das, Skematic Consultants
Green Building Design and Certification	: TERI, New Delhi

Bhubaneswar