



FAMILY COURT, Nagpur Division



Location	: Nagpur, Maharashtra
Site Area	: 12,103 sqm.
Built up Area	: 5,844 sqm.
Typology	: Institutional
Rating Category	: GRIHA for Existing Buildings (EB)
Version	: 1
Date of Award	: 30th May, 2019
Client	: Government of Maharashtra
Integrated Design Team	: Public Works Department (PWD), Maharashtra
Green Building Consultant	: Gadin Consultancy & Co.

The following strategies were adopted by the project team to reduce the impact of the existing building on the environment:

Site Parameters:

- Preferred parking were provided for electric vehicles.
- Strategies were implemented over 4,046 sqm. of site area to reduce the Urban Heat Island Effect.

Energy:

- Replacement of old electrical equipment and appliances with BEE star rated ones has reduced the annual energy consumption from 38,561 kWh/year to 34,268 kWh/year.
- Solar photovoltaic system of 8 kWp was proposed to generate 12,068 kWh of renewable energy.

Water Efficiency:

- Building water consumption was reduced from 1,042.24 kL/year to 690.85 kL/year.
- Rainwater harvesting system catering to 100% of catchment area has been provided.

Human Health and Comfort:

- Indoor comfort conditions measured in summer months; Dry bulb temperature= 22 - 25°C, Relative humidity= 28% – 37%, Daylight levels= 171 - 274 lux, Artificial lighting levels= 210 - 375 lux and Indoor noise levels: 40 - 45 dB; were complaint with benchmarks of the Indian Model for Adaptive comfort, SP 41 and NBC 2005.

Total energy offset
by renewables
= **35.22%**

Total reduction in
building water demand
= **33.71%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: 1.23 ton/year

By conservation of conventional energy: 17.82 ton/year