



## RAJBHAVAN Nagpur Division



Location	: Nagpur, Maharashtra
Site Area	: 13,900 sqm.
Built up Area	: 8,084 sqm.
Typology	: Residence
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.

GRIHA EB



3 STAR

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

#### Site Parameters:

- Availability of amenities such as bus stop, bank, pharmacy and restaurant within 500 meters walking distance from the main entrance of the project.
- Strategies were implemented over 7,101 sqm. of site area to reduce the Urban Heat Island Effect.

#### Maintenance, Green Procurement and Waste Management:

- Project has declared to phase-out the use of HCFC/CFC based equipment, wherever present and purchase green housekeeping materials with low ODP for use on site.

#### Energy:

- Solar photovoltaic system of 4 kWp was proposed to generate 6,034 kWh of renewable energy.

#### Water Efficiency:

- Building water consumption was reduced from 603.60 kL/year to 357.40 kL/year.

#### Human Health and Comfort:

- Indoor comfort conditions measured in summer months;  
Dry bulb temperature= 29 - 31°C, Relative humidity= 50% - 55%,  
Daylight levels= 50 - 100 lux and Indoor noise levels: 39 - 40 dB; were compliant with benchmarks of the Indian Model for Adaptive comfort and SP 41.

Total energy offset  
by renewables  
= **32.85%**

Total reduction in  
building water demand  
= **40.79%**

#### TOTAL CARBON OFFSET BY THE PROJECT:

**By planting native saplings & preserving existing trees: 1.32 ton/year**

**By conservation of conventional energy: 6.57 ton/year**