



SUPER SPECIALITY HOSPITAL Nagpur Division



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| Location | : Nagpur, Maharashtra |
| Site Area | : 17,464 sqm. |
| Built up Area | : 21,795.80 sqm. |
| Typology | : Healthcare |
| Rating Category | : GRIHA for Existing Buildings (EB) |
| Version | : 1 |
| Date of Award | : 30th September, 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:

- Availability of amenities such as bus stop, bank, pharmacy, restaurant and grocery shop within 500 meters of walking distance from the main entrance of the project.
- Preferred parking was provided for electric vehicles.
- Strategies were implemented over 14,402 sqm. of site area to reduce the Urban Heat Island Effect.

Energy:

- Replacement of old lighting fixtures with LEDs, installation of efficient fans have reduced the annual energy consumption from 8,20,714 kWh/year to 5,32,952 kWh/year demonstrating a reduction of 35% from the total energy consumption.
- Solar photovoltaic system of 55 kWp was proposed to generate 82,969 kWh of renewable energy.

Water Efficiency:

- Building water consumption was reduced from 48,657.42 kL/year to 36,341.95 kL/year demonstrating a percentage reduction of 25% from the GRIHA base case.

Universal Accessibility & Environmental Awareness

- Provision of ramps at the entrance and toilet for persons with special needs.

Total energy offset
by renewables
= **15.6%**

Total reduction in
building water demand
= **25.3%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: 2.82 ton/year

By conservation of conventional energy: 403.73 ton/year