



Headquarters Building for Unique Identification Authority of India (UIDAI)

Location	: New Delhi
Site Area	: 4447.51 m ²
Built-up Area	: 8634.81 m ²
Air-Conditioned Area	: 4722.30 m ²
Non-Air-Conditioned Area	: 3912.51 m ²
Typology	: Commercial (Office Building)
Energy Consumption Reduction	: 62.2% reduction in energy consumption compared to GRIHA benchmark
Energy Performance Index (EPI)	: 52.57 kWh/m ² /year
Renewable Energy	: Rated capacity of solar PV installed is 100 kWp
GRIHA Final Rating	: 5 stars
Year of Completion	: 2018

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

📍 Sustainable Site Planning:

- Top soil was preserved and re-applied in landscape and a part of it was donated to nursery for appropriate use.
- Air pollution control measures such as site barricading, coverage of dusty material, wheel washing and water sprinkling were implemented during construction.

📍 Water Management:

- Reduction of more than 40% from the GRIHA base case has been demonstrated in landscape water demand through use of highly efficient drip irrigation system.
- Reduction of 54% from the GRIHA base case has been demonstrated in building water use by installing water efficient flush and flow fixtures.
- 100% storm water is being recharged into the ground through rain water recharge system.

📍 Energy Optimization:

- High efficacy lamps are installed for exterior lighting which is operated by timer controller.
- EPI reduction of 62.2% from GRIHA benchmark has been demonstrated.
- 75% of the habitable spaces are day lit and meet the daylight factors prescribed by the National Building Code of India.
- 100 kWp solar PV panels have been installed on site.

📍 Sustainable Building Materials:

- Fly-ash bricks and AAC blocks have been used in the project to reduce embodied energy of the building.
- Pozzolana Portland Cement with 34.4% fly-ash content by weight has been used in plaster and masonry mortar.
- Use of low energy flooring, false ceiling and paneling has been demonstrated.

Integrated Design Team:

Client	: Unique Identification Authority of India
Principal Architect	: Sikka Associates Architects
Landscape Architect	: Sikka Associates Architects
Structural Consultant	: Mehro Consultants
Electrical Consultant	: Sikka Associates Architects
Green Building Design and Certification	: Sikka Associates Architects

Building performance as per audit report

Energy:

- Final EPI achieved - 82.04 kWh/sqm/year.
- Reduction in EPI from GRIHA Benchmark - 53.20%
- Thermal comfort is met as per NBC 2005.
- Artificial lighting lux levels are met as recommended by NBC 2005.

Water and waste:

- Water test report indicates conformity to IS codes.
- Water consumption in building - 3,367.05 kL/annum

Noise level:

- Outdoor noise levels are within acceptable limits as per CPCB.
- Indoor noise levels are within acceptable limits as per NBC 2005.