



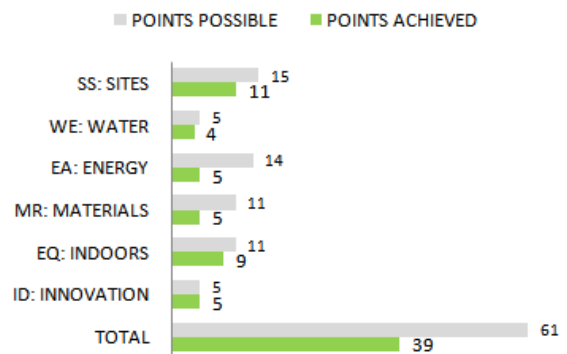
CASE STUDY: TATA XYLEM BUSINESS PARK, BANGALORE



KEY PARAMETERS

Occupancy Type	Business Park
Built up area	520,000 sq. ft
Completed	December 2008
Location	Bangalore, Karnataka
Owner	TATA Xylem
Green consultant	En3 Sustainability Solutions
Rating System	LEED USGBC CS version 2.0
Rating Achieved	GOLD

LEED SCORES



Tata Housing's Xylem, an environment friendly green IT park, is an engineering marvel, which not only saves energy and cooling costs but also gives more lung space and natural light for employees working there. En3 has done innovative work to help TATA Xylem Business Park get greener and achieve its LEED GOLD certification from the Indian Green Building Council.



SITE SUSTAINABILITY FEATURES

- The project is in an ideal location with close proximity to public transportation thereby minimizing transportation pollution and strain on local infrastructure.
- Bicycle stall with showers endorses the use of alternate vehicles.
- Alternate Refueling stations with parking facilities promotes the usage of alternate fuel vehicles thus reducing pollution due to transportation as well as strain on local infrastructure
- Car parks in the basement will create more open spaces on the ground and also reduce the local heat island effect.
- Installation of Storm water management with efficient quality and quantity control.
- Provision of high reflective albedo roofing reduces urban heat island effects.

WATER EFFICIENCY

- Water plays an integral part in the greening process of the facility
- Efficient Landscaping is done resulting in 72.10% reduction in potable water usage.
- 100% of the waste water is treated on site to tertiary standards.
- Special efforts have been taken to minimize water use by installing water efficient fixtures.
- Low flow dual-flush toilets, sensor based urinals and other low flow fixtures have been selected to reduce water consumption by over 84.90%.

ENERGISING THE BUILDING

- In line with international standards, the refrigerants used in the air conditioning system are environmentally friendly and have very low ozone depleting and global warming potential
- 1.08% of the project energy cost is being offset by renewable site generated energy
- A detailed metering system ensures adequate measurement and monitoring of all building systems to continuously monitor the building post-occupancy as well
- A detailed energy analysis and modeling has been done to ascertain various options for energy savings with cost-benefit/payback analysis including high performance glazing, low u-value walls and roof, energy efficient HVAC systems and CFL, T5 and LED based low energy lighting systems





RESOURCE MANAGEMENT

- The project has ensured up to 91% of total construction waste of debris has been recycled or reused thereby diverting them from landfills.
- The project has achieved a combined recyclable content value of 10% of total material by cost thereby reducing virgin material exploitation.
- About 56.70% of the total material cost was manufactured and extracted regionally thereby reducing the pollution due to transportation

INDOOR ENVIRONMENTAL QUALITY



- Installation of Co2 sensors in densely occupied spaces thus providing for a automatically ventilated space.
- In order to support enhanced IAQ and long-term well-being of all occupants, adequate fresh air has been planned in line with international ASHRAE standards
- Provision of a thermally comfortable environment that supports productivity and well-being of all building occupants
- Low emitting adhesives, paints and carpets have been used to enhance the indoor environment and provide superior workplace for all employees.
- Provision of a thermally comfortable environment that supports productivity and well-being of all building occupants.
- 90% of space has direct access view of outdoors thus providing connection to the exteriors

NOVELTIES

The project achievement exceeds the threshold of 56.20% for exemplary performance in water usage reduction. 56.70% of the total project's materials, based on cost, were manufactured regionally. The project Achievement is higher than the next incremental percentage threshold of 40%. Green housekeeping program creates awareness and promotes green concept.

En3 would be glad to answer any queries or questions you have on any green or sustainability related topics. Feel free to contact us at info@en3online.com and for more information visit us at www.en3online.com.