Indospace Industrial Park Vallam

Renovation

Primary energy need: kWh/m².year
(Calculation method:)

ECONOMICAL CONSUMPTION
Building

<table>
<thead>
<tr>
<th>Energy-intensive building</th>
<th>kWh/m².year</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 50</td>
<td>A</td>
</tr>
<tr>
<td>51 à 90</td>
<td>B</td>
</tr>
<tr>
<td>91 à 150</td>
<td>C</td>
</tr>
<tr>
<td>151 à 250</td>
<td>D</td>
</tr>
<tr>
<td>251 à 350</td>
<td>E</td>
</tr>
<tr>
<td>351 à 450</td>
<td>F</td>
</tr>
<tr>
<td>&gt; 450</td>
<td>G</td>
</tr>
</tbody>
</table>

Building Type: Factories
Construction Year: 2011
Delivery year: 2018
Address 1 - street: Vallam Village, Sriperumbudur Taluk, Kancheepuram District. 600000 CHENNAI, India
Climate zone: [Aw] Tropical Wet & Dry with dry winter.

Net Floor Area: 13,395 m²

Certifications:

General information

Near major highways and easily accessible to Chennai, the IndoSpace Industrial Park Vallam is situated in an ideal location for the warehousing sector. The park consists of four buildings, one of which has received EDGE certification, and provides leasing space to logistics and manufacturing companies. Tenants of the EDGE-certified building operate in a resource-efficient environment, allowing them to reduce their utility bills and channel more funds into their businesses. These green features are expected to reduce the utility costs of the building by more than $4,000, allowing tenants to pay nearly half the amount it would cost to operate in a traditional warehouse.

A pioneer of modern industrial and logistics parks, IndoSpace has constructed over 30 parks across India since it was founded in 2007. Each park is leased as a shell building without any internal touches and then rented to customers who can customize their own space for the needs of their businesses. All the buildings within a park share common areas such as parking and outdoor space. With more than 80 companies renting their warehouses, IndoSpace caters to both national and international companies such as Amazon and IKEA. The company is committed to building industrial spaces that allow tenants to maximize profit with minimal harm to the environment. IndoSpace Industrial Park Vallam has received final EDGE certification from GBCI.

See more details about this project
Stakeholders

Contractor

Name: Indospace AS Industrial Park Pvt Ltd
Contact: govindarajan.gs[at]indospace.in

Construction Manager

Name: Indospace AS Industrial Park Pvt Ltd
Contact: govindarajan.gs[at]indospace.in

Energy

Energy consumption

Breakdown for energy consumption:
- Lighting: 10 kWh/m²/year
- Other: 16 kWh/m²/year
- Cooling Energy: 31 kWh/m²/year
- Fan energy: 11 kWh/m²/year

Initial consumption: 44,000 kWh/m²/year

Envelope performance

Roof U-value: 2.09 W/m² K
Wall U-value: 2.12 W/m² K
Glass U-value: 5.75 W/m² K

Real final energy consumption

Final Energy: 26,610 kWh/m²/year

Renewables & systems

Systems

Heating system:
- No heating system

Hot water system:
- No domestic hot water system

Cooling system:
- No cooling system

Ventilation system:
- Natural ventilation

Renewables & systems:
- No renewable energy systems
**Products**

**Product**

**Product category:** Table 'c21_spain.innov_category' doesn't exist

SELECT
one.innov_category AS current,two.innov_category AS parent
FROM innov_category AS one
INNER JOIN innov_category AS two ON one.parent_id = two.id
WHERE one.state=1 AND one.id = '17'

Reduced window to wall ratio

Skylight(s) to Provide Daylight to 50% of Top Floor Area

**Product category:** Table 'c21_spain.innov_category' doesn't exist

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one.innov_category AS current,two.innov_category AS parent
FROM innov_category AS one
INNER JOIN innov_category AS two ON one.parent_id = two.id
WHERE one.state=1 AND one.id = '14'

-Dual flush water closets
-Water-Efficient Urinals in all Bathrooms - 0.6 L/flush
-Aerators & Auto Shut-off Faucets in all Bathrooms - 2.29 L/min
-Black Water Treatment and Recycling System

**Product category:** Table 'c21_spain.innov_category' doesn't exist

SELECT
one.innov_category AS current,two.innov_category AS parent
FROM innov_category AS one
INNER JOIN innov_category AS two ON one.parent_id = two.id
WHERE one.state=1 AND one.id = '1'

-Controlled use of concrete for floor slabs
-Aluminum window frames
-Roof Construction: Steel (Zinc or Galvanised Iron) Sheets on Steel Rafters
-External Walls: Precast Concrete Panels, Steel Profile Cladding
-Flooring: Finished Concrete Floor

**Costs**

**Construction and exploitation costs**

Additional information on costs:
Base Case Utility Cost: 678,296.00 Rs/Month
Utility Costs Reduction: 307,509.00 Rs/Month
Incremental Cost: 5,253,395.19 Rs
Payback in Years: 1.42 Yrs.

**Health and comfort**

**Life Cycle Analysis**

Eco-design material: Usage of non-hazardous materials

**Water management**

Consumption from water network: 22,279.00 m³
Water Consumption/m²: 1.66
1 Lts/person/day: water faucets
14 Lts/person/day: landscaping
1 Lts/person/day: other

Water Savings: 25102.32 m³/Year

**Carbon**

**GHG emissions**

GHG in use: 19,60 KgCO₂/m²/year
GHG before use: 33,18 KgCO₂/m²,
, i.e xx in use years: 1.69
**Contest**

**Reasons for participating in the competition(s)**

**Energy** (25% energy savings): Reduced window to wall ratio and a skylight that provides daylight to 50% of the top floor area.

**Water** (53% water savings): Dual flush water closets, water-efficient urinals, aerators and auto shut-off faucets and a black water treatment and recycling system.

**Materials** (64% less embodied energy in materials): Controlled use of concrete for floor slabs, steel sheets on steel rafters for roof construction, precast concrete panels and steel profile cladding for external walls, finished concrete flooring and aluminum window frames.

**Building candidate in the category**

Energy & Hot Climates

Users' Choice

Date Export: 20230621172304