



Candor Kolkata One Hi-Tech Structures Pvt. Ltd. IT/ITES SEZ, Sec-21, Gurugram

Baljit Singh – Head, Operations (PAN INDIA)

**Mukesh Chandra – Assistant Vice President** 

Mukund Krishnan – General Manager (PMO)



#### **Company Profile-Candor TechSpace**

- Candor TechSpace is managed and serviced by Brookfield Properties. In India, we are setting new benchmarks with strategic endeavours in the field of Commercial Real Estate. Our dynamic portfolio includes over 20.7 million sq. ft. office space of which 13.87 million sq. ft. is fully operational. We are successfully running five IT/ITES campuses located in prime micromarkets of Gurugram, Noida, and Kolkata.
- All the campuses are working towards IGBC Platinum certifications for operational buildings, universal accessibility, indoor air quality management systems, shared mobility solutions, thematic landscaping with art installations.
- It is also facilitated with world-class amenities such as day care facilities, Food court, Base Kitchen to serve client's cafeteria, Concierge desk, convenience shopping, pharmacy, gymnasiums to name a few.

#### **Our Mission-Sustainability First Always**

We're constantly implementing solutions to lower our environmental impact. Because we believe building a better tomorrow begins with us, today.

We know: a cleaner future can't wait. It's why we're committed to reduce waste, saving energy, and managing resources across our portfolio. it's why we build with LEED Gold Standards in mind and we integrate innovative technology into our properties that help us create more efficient structures. Because when it comes to sustainability, we're all in.

#### Project Profile-Candor Kolkata One Hi-Structures Pvt. Ltd.



This is one of the most vibrant campuses in the NCR region with over 40,000 young, lively IT enthusiasts working at a single location. The well-planned workspace offers a truly delightful experience to its users with a wide array of amenities available at the two unique amenity blocks situated right under a beautiful terrace garden and a landscaped sunken court with sit-outs. The ease of movement is enhanced by a pedestrian-friendly spine.

This is the only IT/ ITES SEZ with two dedicated entry and exit points. Besides, the location is easily accessible from the airport and Dwarka sub-city in Delhi.

#### Project Profile-Candor Kolkata One Hi-Structures Pvt. Ltd....Contd.











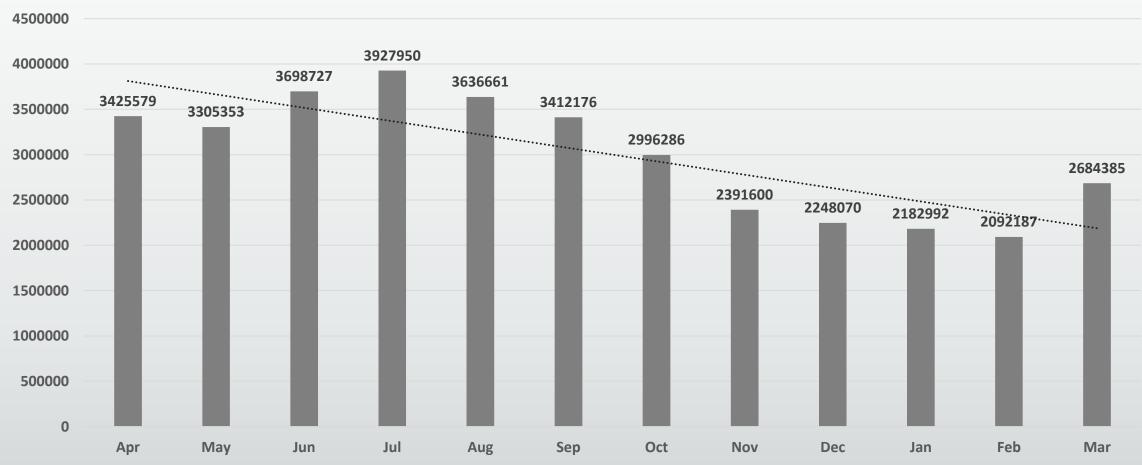
The campus also provides shuttle service that ensures smooth connectivity to the other parts of the city. There is a wellness centre, gymnasium, food court, cafe, ATM, crèche and a convenience shopping centre. Moreover, the campus is also favoured for its fabulous mix of facilities that include a multi-level car parking, a 400KWp solar power plant and an approved 66 KV sub-station in the complex. Our buildings are energy-efficient with Double Glass Unit for better heat insulation. The other facilities on offer are LED lighting, automatic VFD controlled AHU, Efficient chillers, pumps, STP and rainwater harvesting.

## **Energy Consumption Pattern-Year wise**

S. No.	Parameter		2020-21	2019-2020	2018-2019	2017-2018
1	Energy					
a	Annual Electrical Energy, purchased from Utility	kWh	35562089	62014140	41462690	44061025
b	Annual Electrical Energy, Generated from DG/GG	kWh	439877	1547301	23518937	25143309
С	Total Annual Energy, Utility + Generated	kWh	36001966	63561441	64981627	69204334
2	Energy Cost					
а	Annual Cost of Electrical Energy, purchased from Utility	Rs.	310145759	502164583	330548684	322313467
b	Anuual Cost of Electrical Energy, Generated from DG/GG	Rs.	5250058	17735999	424321895	370166068
С	Total Annual Cost of Energy Cost, Utility + Generated	Rs.	315395817	519900581	754870578	692479536

#### **Energy Consumption Pattern- Month wise**



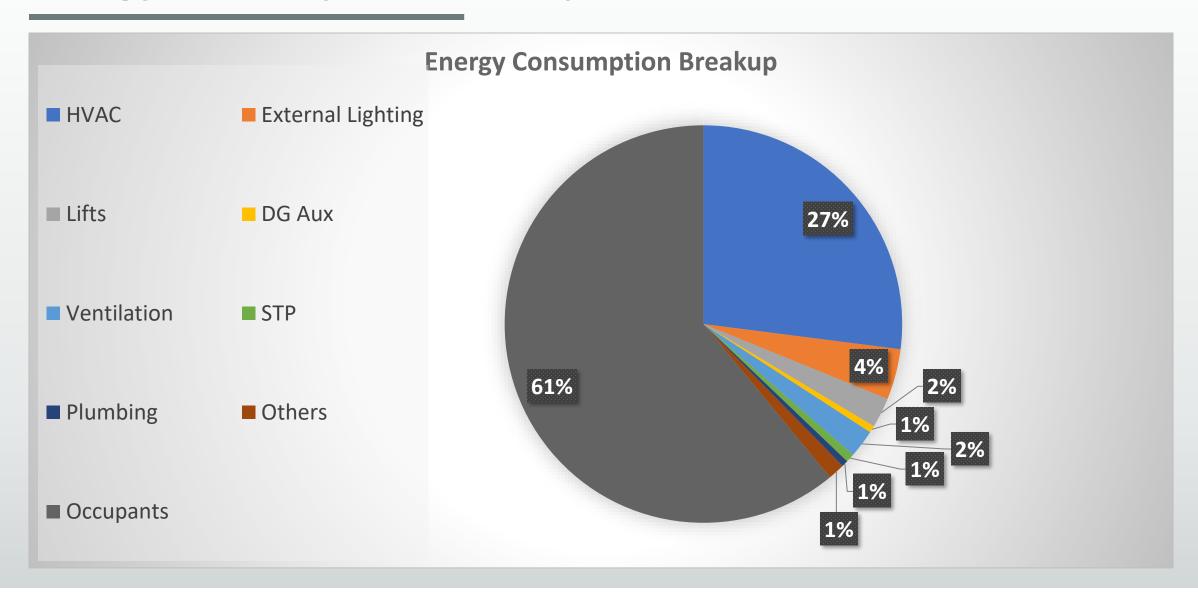


## **Energy Consumption Pattern**

SPECIFIC ENERGY CONSUMPTION, KWH/SQ. M



## **Energy Consumption Breakup-FY(2020-21)**



27-Jul-21

## List of Encon Projects Planned in FY 2021-22

Title of Project	Electrical Savings, kWh	Cost Saving, INR	Investment, INR	Payback, In Months
Old or Inefficient Motor Replacement	23000	195500	520000	32
Installation of Electronic Filters	207000	1759500	4105500	28
ATCS Installation in Condenser Circuit	191000	1623500	1800000	13
Inefficient Pump Replacement with efficient Pump	219000	1861500	4000000	26
Total	640000	5440000	14117500	31

#### **Energy Saving Projects implemented in last few Years**

Financial Year	No. of Proposals	Cost Saving, INR	Investment, INR
2017-2018	1	6534000	6737000
2018-2019	2	5098000	7055000
2019-2020	2	29102000	21167000
2020-2021	4	6980000	12660000
Total	9	47714000	47619000

#### 66/11 kV Grid Substations





- Earlier Substation receiving power of 11kV had previously been installed to cater to the power requirements of the campus.
- The installation of new 66/11kV grid substations has enhanced the quality of power supply and new substations ensure that the campus receives a continuous supply of power with minimal interruptions or changeovers.

#### **Diesel Generators**





- Site installed sufficient numbers of DGs to ensure full power backup to occupants without interruption in the situation of an emergency or grid breakdown.
- Strict review and control methodology to avoid last minute surprise.

#### Renewable Energy Source-Solar System





Installed Capacity (KW) / Year	Energy Generated, kWh			
400 kWn	2018-2019	2019-2020	2020-2021	
400 kWp	415000	462000	430000	

To conserve energy and increase responsible energy consumption, Site has installed solar panels. This initiative will help CO2 abatement and create a healthy workspace environment.

## **Continuous monitoring of Energy Parameters**





Each feeder having the Energy Meter for proper recording of the parameters through the BMS

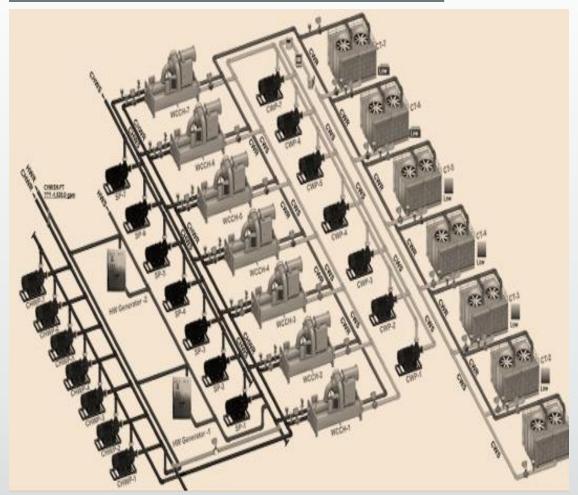
#### **HVAC Plant Room**





- High COP water cooled centrifugal chillers with VSD
- Free from CFC, HCFC and Halons
- R-134a with no Ozone Depletion Potential and no phase-out date per the Montreal Protocol

#### **HVAC** Initiatives





- Fully Automation of HVAC System including secondary pumps and AHU's
- Regular Maintenance of Cooling Tower's

#### **HVAC Initiatives.....Contd.**





- Interconnection the chilled water plant catering to different buildings
  Benefits-Optimum loading of chilled water plants during low load period & thereby lower
  Specific power consumption.
- Demand ventilation with CO2 Level in AHU's

#### **HVAC Initiatives.....Contd.**





- Some chillers have an automatic condenser tube cleaning mechanism.
- Automatic condenser tube cleaning system that helps to reduce specific energy consumption by lowering condenser fouling and keeping the approach within the limits.

## **Lighting System**







Energy Efficient Lighting in Building/Exterior/Basement

#### **Building Management System**

#### **Building Management System**

AHU's Floor Wise

Chiller Plant

Breakers

DG's

Lift

Pressurization Fan's

Ventilation Fan's

CO Sensors-Basement

Air Washers

Terrace Tank

**Energy Meter Summary** 





At Candor TechSpace, all our buildings are equipped with BMS which helps in smart management of building's mechanical and electrical equipment. The infrastructure development is done as per the international standards of space management and usability.

#### **Electric Vehicle Charging Stations**



Electric vehicle charging stations have been established. As the transportation sector is a major contributor of air pollution, shifting the masses to a cleaner energy mode of transportation such as electric vehicles will result in lesser conventional energy dependencies.

#### **Energy Auditing Team**



- At Site we have dedicated Engineers who continuously record and monitor the energy consumption and the same is being verified by Central Energy Team on weekly basis.
- Central Energy Team has calibrated instrument and carry out four preliminary audit and one energy audit.

#### **Training Gallery**



Electrical, HVAC, Plumbing components and Energy flow diagram are displayed in our training gallery for the training purpose.

#### **Water Efficiency**

**Drip Irrigation-**As per the management guideline, the conventional watering systems for horticultural areas and green belts have been converted to drip irrigation. Drip irrigation can save water by allowing it to drip slowly to the roots of plants. Drip irrigation has resulted in 50 % reduction of water usage for horticultural purposes.

Installation of Efficient Faucet Aerators-As per the Management guideline, All the in-efficient faucet aerators have been replaced with waterefficient ones to lessen water usage.





#### Water Efficiency.....Contd.

Development of Green Belts-Site have designated green belts or planned open spaces that are safeguarded from construction activities. The objective behind promoting the development of green belts in and around campuses has been to increase the water entrapment areas. Also, green belts reduce the suspended particles in the air since the dust settles down with the grass cover. Native species of plants have been planted in these green belts to increase natural recharging of groundwater through rainfall.

Implementation of Rain Water Harvesting Pits-There are nos. of operational rainwater harvesting pits at site, each with a water-capturing capacity of 2-5 kl/hr. These pits are cleaned regularly to maintain their efficiency.



#### Water Efficiency.....Contd.

#### **Sewage Treatment Plant-**

Site has "Zero Discharge" Waste Water.

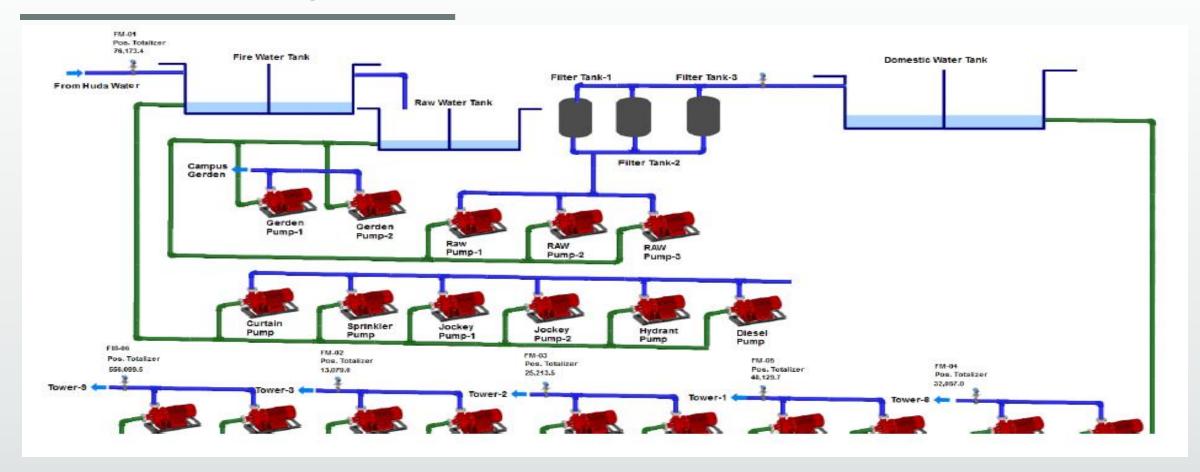
STP (based on MBBR Technology) with tertiary unit (UF technology) have installed across Candor Campuses. The Candor has reused 100% of STP treated wastewater within the premises.

100% waste water from flushing is treated to make it re-usable for horticulture, flushing and cooling tower makeup water requirement.

The quality of treated wastewater tested through NABL accredited laboratory to meet the quality standards as per Central pollution control board (CPCB).



#### Water Efficiency.....Contd.



- The electromagnetic type flow meter is used in all of the major water verticals and is connected to the BMS.
- Water Automation and Online data monitoring which helps to keep track on the water data and also efficiently utilization of water consumption.

#### **Waste Utilization and Management**

In the call public areas have the access to waste collection bins. Collection bins are kept in regular intervals along the main streets. Inorganic waste is taken away by the municipal waste collection van. Apart of the organic waste which collected from places other than Mess and canteen areas are treated onsite. Hazardous waste is generated from machinery, DG set, lights, Batteries etc which separately collected and stored at dedicated Ewaste room. All the Wet & Dry waste generated from the project premises treated using organic waste converter technology. The compost generated from the Organic Waste Technology reused as manure in the landscape area.





## **Green Supply Chain Management**

To reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemicals, biological and particulate contaminants which adversely affect air quality, human health, building finishes, building systems and the environment. Management has created its Green Cleaning Policy. Candor aims to progressively move towards 100% sustainable cleaning procedures and products/equipment.



### Team Work, Employee Involvement & Monitoring















- Daily Energy and Water Monitoring System
- Review Meeting chaired by Head operation
- Separate budget for Energy Conservation
- Energy Efficiency/Awareness training Programs
- Rewards and Recognition on monthly basis

#### **Certification and Awards**





#### **Indian Green Building Council (IGBC)**

hereby certifies that

#### Candor Gurgaon Two Developers & Projects Pvt Ltd

Gurgaon

(IGBC Registration No. EB 18 0100)

has successfully achieved the Green Building Standards required for the following level of certification under the

IGBC Green Existing Buildings Rating System

#### Platinum

March 2019

(This certification is valid for 3 years)



Chairman, IGBC

5. alex2 S Raghupathy Deputy Director General, CII

K S Venkatagiri







Confederation of Indian Industry 125 Years - Since 1895

#### 21st National Award for Excellence in Energy Management 2020

This is to certify that

#### **CANDOR Kolkata One Hitech Structures Private Limited,** Guragaon

has been recognized as

"Energy Efficient Unit"

This acknowledgement is based on the evaluation by panel of judges at the "National Award for Excellence in Energy Management" held during 25 - 28 August 2020.

K S Venkatagir Executive Director CII - Godrej GBC

Ravichandran Purushothaman Chairman, Energy Efficiency Council

CII - Godrej GBC

#### Certification and Awards....Contd.





#### Certification and Awards....Contd.





#### Certification and Awards....Contd.



ZERTIFIKAT → CERTIFICATE → 調査証書 → CEPTM●NKAT → CERTIFICADO → CERTIFICAT CERTIFICATE The Certification Body of TOV SOD South Asia Private Limited certifies that CANDOR Candor India Office Parks Private Limited
Candor TechSpace IT/ITES SEZ, 1st Floor,
Amenity Block, Sector - 48, Gurgaon - 122 01s, Haryana, INDIA in accordance with ISO 9001:2015 For Scope of FACILITY MANAGEMENT AND BUILDING SERVICES OF MULTI LEVEL CAR PARKINGS & COMMERCIAL COMPLEXES The certificate is valid From 2020-09-28 until 2023-09-27 Subject to successful completion of annual periodic audits. The present status of this Certificate can be obtained on <u>successful</u> in footions reparally the scope of this certificate may be obtained by corrusting the certificate. Certificate Registration No. 99 100 20174



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The Certification Body of TÜV SÜD South Asia Private Limited

certifies that



Candor India Office Parks Private Limited Candor TechSpace IT/ITES SEZ. 1st Floor. Amenity Block, Sector - 48 Gurgaon - 122 018, Haryana, INDIA

has implemented an Environmental Management System in accordance with ISO 14001:2015 For Scope of

FACILITY MANAGEMENT AND BUILDING SERVICES OF MULTI LEVEL CAR PARKINGS & COMMERCIAL COMPLEXES.

The certificate is valid From 2021-01-12 until 2023-10-10 Subject to successful completion of annual periodic audits The present status of this Certificate can be obtained on <a href="https://www.tuvoud.com/en-in">www.tuvoud.com/en-in</a>
Further clarifications regarding the scope of this certificate may be obtained by consulting the certification body

> Certificate Registration No. 99 104 00887 Date of Initial certification: 2017-10-11 Issue Date: 2021-01-12



Head of Certification Body of TÜV SÜD South Asia Private Limited, Mumbai Member of TÜV SÜD Group







TOV SOD South Asia Pvt. Ltd. • TOV SOD House • Seli Naka • Andheri (Essi) • Mumbal • 400072 • Mehansakta • India TOV

#### **Question and Answer**



## Candor TechSpace India Office Park Pvt. Ltd. Head Office: First Floor IT/ITES SEZ, Tikri, Sector 48 Gurugram, Haryana-122018

Mukesh Chandra

**Assistant Vice President** 

# Thanks...