



CII National Award for Excellence in Energy Management -2023

PRESENTING MEMBERS :

ARVIND SHRIVASTAV - CENTRE DIRECTOR
PRAKASH JAVARAN - MANAGER - TECHNICAL
THILAK SALIAN - TECHNICAL HEAD

FIZA BY NEXUS – COMPANY PROFILE



Inaugurated in 2014 and continues to be one among the favorite entertainment and shopping destination for Mangalorean's and for nearby catchments like Udupi, Manipal and Kasargod.

Fiza by nexus mall is the largest Mall in Coastal Karnataka, located in the heart of the city.
Houses national and international brands which attracts niche footfalls to the mall.



Brands	Cinema	Hypermarket	Food court	Parking
100+ National and International Brands	PVR – 6 screen state of the art Multiplex	Spar Hypermarket	600-seater capacity. 10+ F&B casual & fine dine experiences	Holds a total capacity of 886 four-wheel slots and 380 two wheel.

ARCHITECTURAL DESIGN FEATURES

- Our mall has two entrances facing north and south respectively. North side façade was designed and constructed with 15% glass to receive more natural light and remaining façade with double brick wall with 600mm gap in between to act as a thermal resistance.



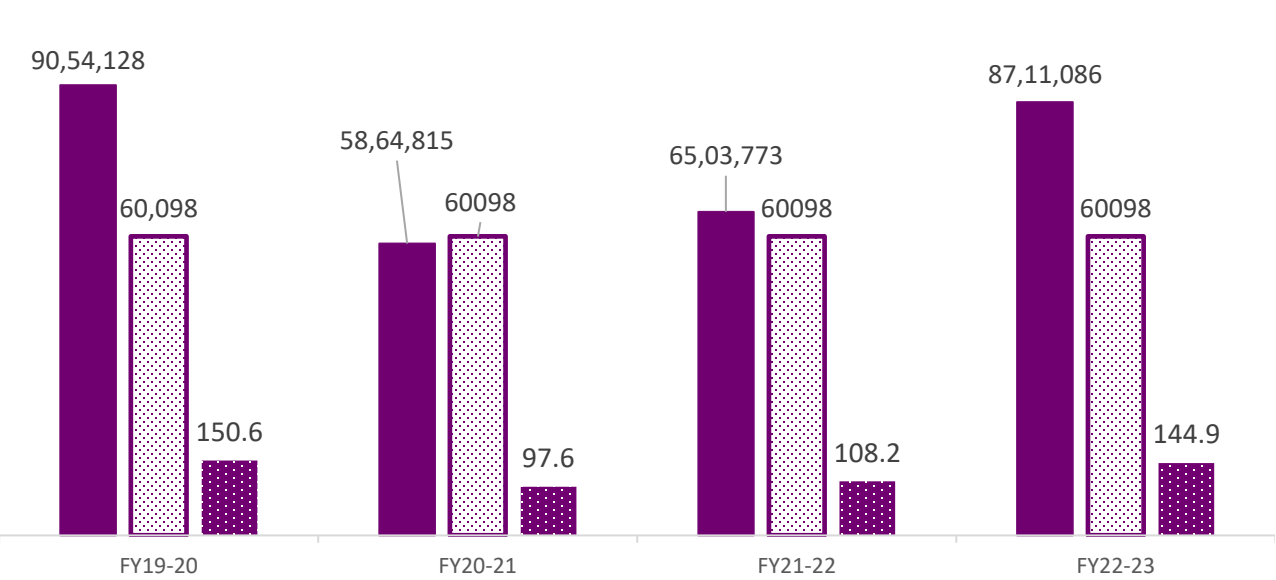
- South & East façade is made with 10% glass to receive natural sun light.
 - Roof is made of 15% glass to harvest natural light and resist solar radiation.
 - Entire peripheral area is covered with trees and plants.
- Terrace slab is made with 100% brick bat coba technology to act as thermal insulation as well as water proofing.
 - 30% of terrace area is double coated with GRIHA/CRDF certified solar reflective paint with SRI value of 111.



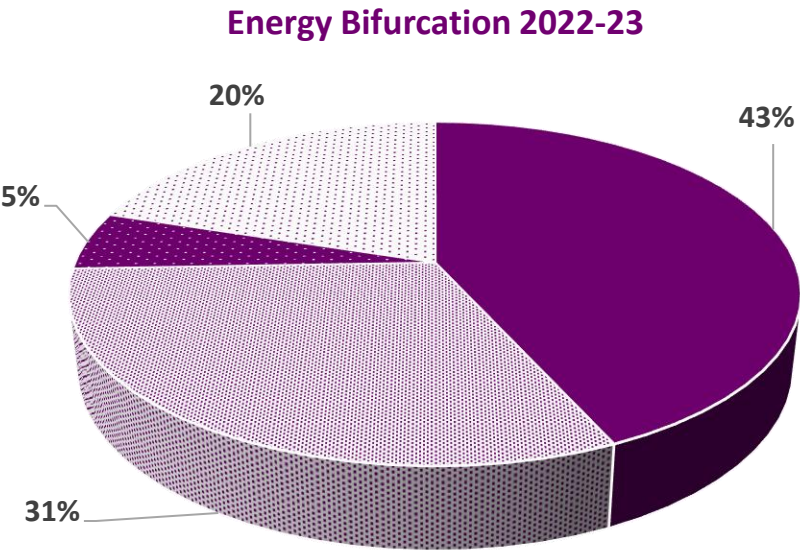
ENERGY CONSUMPTION :

As per ECBC our climatic zone is Warm and Humid

Year	Energy Consumption in kwh	BUA in sq.m (Air-Conditioned Area)	Energy Performance Index(EPI)
FY19-20	90,54,128	60,098	150.66
FY20-21	58,64,815	60,098	97.59
FY21-22	65,03,773	60,098	108.22
FY22-23	87,11,086	60,098	144.95

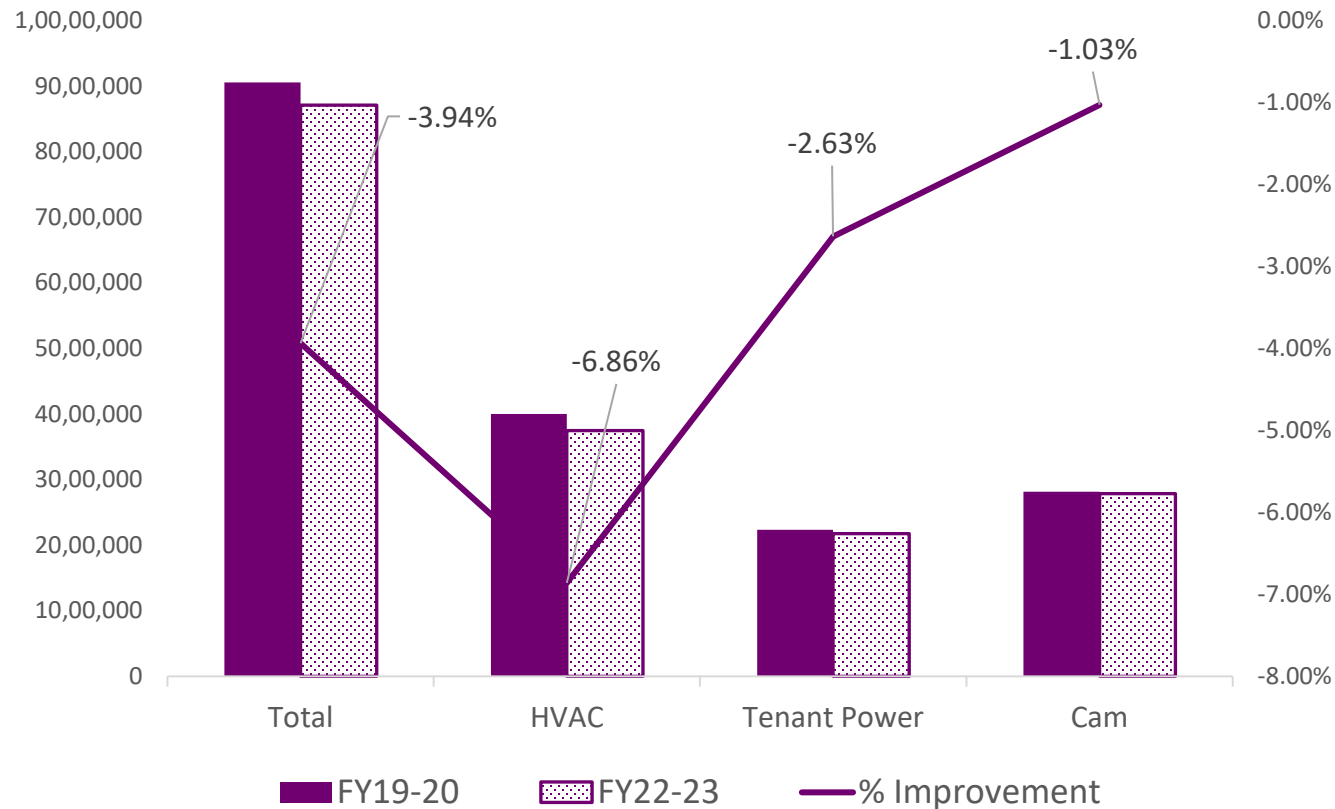


■ Energy Consumption in Kwh ■ BUA in Sq.m ■ Energy Performance Index(EPI)



■ TENANT ELEC ■ TENANT HVAC ■ CA HVAC ■ CA ELEC

ENERGY VARIATION EXPLANATION :



- All basements and utility room lights were brought down from double height ceiling to required level which helped to improve the illuminance and reduce no of light fittings.
- Operational changes by close monitoring of HVAC as per ambient temperature and footfall.

Reasons for Variation:

- All AHU actuators are controlled by installing the thermostat, which was not there earlier.
- Installed motion sensors for basements to keep only minimal lights during no movement.
- Photocell sensors are used for all external lights.
- Cooling tower outlet water flow is controlled by motorized valve through BMS based on water temperature.
- Solar reflective coating is applied for terrace area which resulted in reduction of 2-3 degree centigrade Indoor temperature.
- Operating two transformers out of three in order to reduce no load losses upto 4% and keeping other transformers 70% loaded to get more efficiency and less losses.

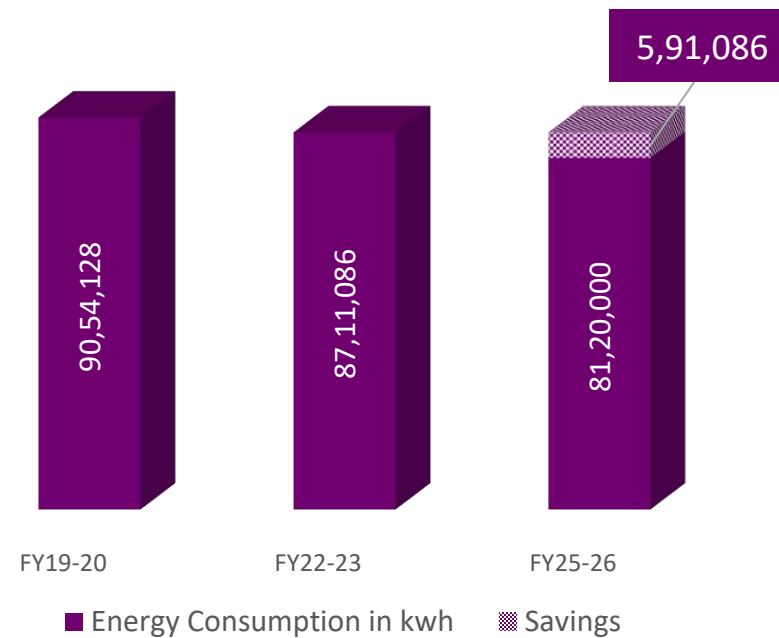
ENERGY BENCHMARKING:

Comparison with other entities with same climatic zone –Warm & Humid



Entity	Internal Benchmarking(Nexus Malls)		External Benchmarking	Fiza By Nexus
	Nexus Vijaya (Chennai)	Nexus Esplanade (Bhubaneswar)	City Centre (Mangalore)	
Energy Consumption in kwh	1,86,91,006	95,76,046	95,00,000	87,11,086
BUA in sq.m	77,302	63,336	54,817	60,098
Energy Performance Index(EPI)	241.8	151.2	173.3	144.95

Target for 2025-26 :



BEE Benchmark

Warm and Humid

EPI (kWh/Sqmtr/Year)	Star Label
450-400	1 star
400-350	2 star
350-300	3 star
300-250	4 star
below 250	5 star

Target is to achieve EPI 135 by 2025-26,for which we need save 5,91,086 units with baseline FY 22-23

GRESB Benchmark

Operating Hours	Daytime Occupancy		24-hours Occupancy					
	5 days a week		7 days a week					
Climate Zone	Institutional	Office	Health care Facility	Hospitality	Office	Residential	Retail	Transit Terminal
Composite	90	90	250	275	225	70	225	300
Hot and dry	90	90	250	275	225	70	225	300
Warm and humid	90	90	275	275	225	70	225	300
Moderate	75	75	250	250	210	50	210	300
Cold	90	120	275	300	275	100	225	275

ROAD MAP TO ACHIEVE TARGET



FY 23-24

Upgradation of existing chiller with efficient and advanced technology chiller.

Insisting all existing, upcoming and renovation tenants to install VFD with thermostat for their AHU's.

Insisting all F & B tenants to use gas based equipments to reduce electricity.

FY 24-25

Entire parking lights to be controlled by motion sensor.

Upgradation of chiller plant manager(CPM) for operation of chillers, pumps & cooling towers in auto mode.

Energy Awareness and Education: Conduct awareness campaigns among mall staff, tenant staff and visitors to promote energy-saving practices. Encourage responsible energy usage such as turning off lights and equipment when not in use and provide energy-saving tips and guidelines.

FY 25-26

Replacement of standard v-belts with cogged v-belts for all CSU's to reduce belt slip losses by minimum 5%.

Green Roof and Vertical Gardens: Create green spaces on the mall's roof or walls by implementing green roofs or vertical gardens. These installations will help to reduce heat absorption, improve insulation, and enhance the overall environmental sustainability of the mall.

ENERGY SAVINGS SUMMARY FY 20-21 TO FY 22-23



Year	No.of Energy saving projects	Investments (INR Rupees)	Electrical savings (kWh)	Savings (INR)	Impact on SEC Electrical
FY 2020-21	1	55,000	1,20,000	14,40,000	1.996
FY 2021-22	1	6,29,000	36,000	4,32,000	0.599
FY 2022-23	2	11,600	7,209	86,508	0.120

ENCON PROJECT – FY 2020-21

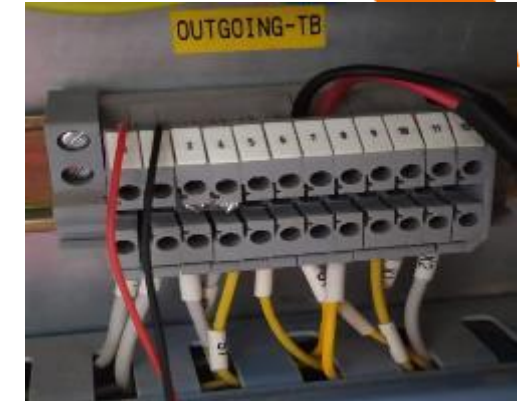
All our 200 CSU units including tenant and common area have been installed with thermostat to control the actuators.

Unit starter and thermostat were operated independently earlier, and starter had no control of actuator. Even though unit is switched off through starter, thermostat have been giving signal to keep actuator to stay in open condition.

Water circulation was happening through the CSU's even when the unit was in switched off condition. This used to have more load on chiller and increase in our secondary pump consumption.

Inhouse technical team had done additional modification in the circuit by looping communication cable to close the actuator whenever the unit is switched off. Increase in pressure in line is sensed by pressure transmitter which gives signal to secondary pumps VFD to reduce the speed.

This initiative resulted in reduction of load on secondary pump chiller.



Average per month savings = 10,000 kwh
Average annual savings = 1,20,000 kwh



Total area of terrace is 1,25,000 sq.ft including all service area.

37,000 sq.ft is the vital area comprising of food court dining and gaming zone. The occupant load density in this area is high and its very difficult to maintain the thermal comfort during summer/day time and which increases the load on chiller.

We have applied a solar reflective coating for 37,000 sq.ft which is 30% of over all terrace area.

We have double coated the solar reflective paint which has high SRI value of 111.

This helped us to reduce the floor AHU's load and chiller load simultaneously.

			
<p align="center">CRDF Research & Development Foundation (an acronym for Center for Russian and Eastern Studies)</p>			
Project No. CRDF04-000004		Project Date: 19 January 2005	
<p>Report of Test material by CRDF Research & Development Foundation for Scientific Information Service of Russian Federal</p>			
The test results of the specimen submitted for Scientific Information Service on 04/01/2007 09:00 are as follows:			
1. Customer Information			
1. Name of the Organization	Luzhsk Company		
2. Contact Person	Dr. Jevgeni Kolt		
3. Address	P.O. Box, Kirov City, Kirovskiy - 440-0		
4. Phone Numbers	87000002		
5. Fax Number	87000002		
6. Email	info@crdf.moscow		
2. Inventory Listing			
2.1. Listing Materials			
2.1.1. Sample Details			
1. Sample Identification Number	0-00000000		
2. Date of Test	2004 July 2001		
3. Name and file # of the material (date of collection of the materials including physical description)	Luzhsk, L. (2004 July 2001)		
4. Test results of the specimen (as dictated by customer)	Not applicable		
5. Evidence as tested	Not applicable		
6. Location of sample when tested	Sverdlovsk		
7. Name and physical address for Customer (if applicable)	CRDF, Moscow		
8. Location and file # of inventory listing (including name, if available)	Not applicable		
9. Description of testing method (if necessary, including and location of test)	Not applicable		
10. Test result used	See supplementary test CRDF04-000004 report with reference to material Specimens 4-7 with its results collected in the		
11. Inventory Location (Test Method)	At the 100-11, 04/000004, 04/000004, 04/000004		



Our terrace floor temperature is almost reduced by 10° C

ENCON PROJECT - FY 2022-23



At basement exit ramp we have 11 LED light fixtures (18 w x 2 = 36 watts each)

Inhouse technical team had installed a motion sensor to switch off the lights when there is no movement in the area.

Motion sensor will sense movement for 3-meter radius area and cut off the circuit if there is no motion sensed for 11 seconds

Daily operational hours of these lights is from 10:00 AM to 12:00 AM (14 hours duration)

With this initiative we could reduce operational hours of these lights by 2 hours from 14 hours



Per Day Saving = $396\text{w} \times 12 \text{ hrs} = 4.75 \text{ kwh}$
Annual savings = $4.75 \times 365 = 1734 \text{ kwh}$

ENCON PROJECT – FY 2022-23

405 external lights were earlier operated manually which leads to early switching on or delay in switching on/off.

Inhouse technical team had installed photocell sensors to all external lights except few emergency lights to switch on the lights whenever there is a low natural light intensity.

Timer was installed to the circuits to keep the lights operational only between 6pm to 10pm

Through this initiative we could reduce operational hours of lights by 20 mins per day on an average based on different weather conditions.

This will also increase life span of the light fixtures and reduce energy consumption



Average per day saving = $75 \text{ kw} \times 20 \text{ mins} = 15 \text{ kwh}$
Average annual savings = $15 \times 365 = 5475 \text{ kwh}$

INNOVATIVE PROJECTS IMPLEMENTED

- Seeds are extracted from disposed fruits and seeds collected from wet waste.
- Wet waste generated in the mall is turned into manure through OWC machine.
- Collected seeds are then wrapped with soil, compost and then dried to make seed balls.
- These seed balls can be sown anywhere on the earth.
- Seed balls are an easy and sustainable way to cultivate plants in a way that provides a larger window of time when the sowing can occur.
- Donated 10,000 seed balls & 100 saplings made of waste to Forest Department on the occasion of Vana Mahotsav.
- This seed ball initiative started by Fiza by nexus mall was taken as the case study by World Bank under management of bulk waste in Mangalore City Corporation.

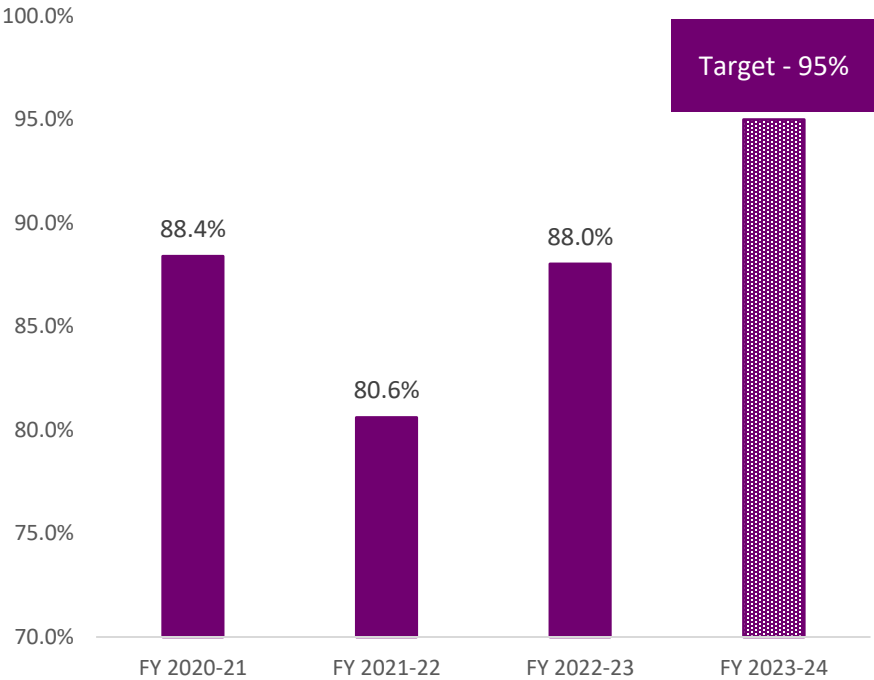
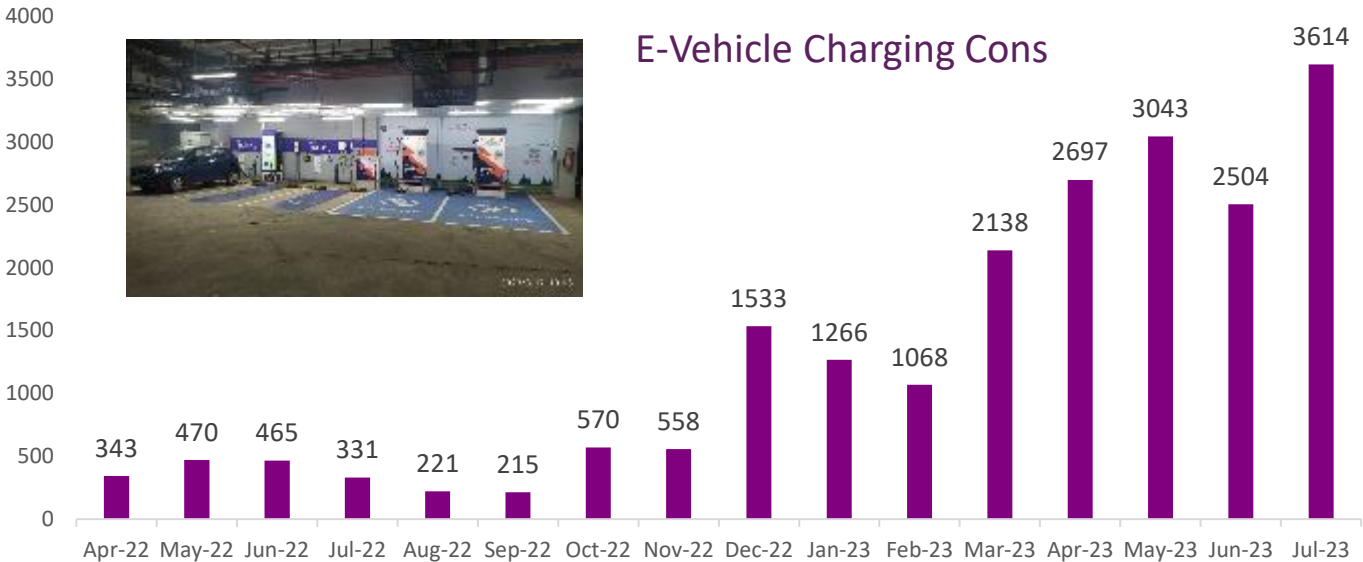


RENEWABLE ENERGY:

Year	Technology	Mode	Installed capacity	Contract demand of the Company(MW)	Consumed Renewal Energy Off-site (Mn Kwh)	Total Consumption (Mn Kwh)	RE contribution to overall consumption in %
FY 2020-21	Solar	Group Captive	20MWDC/15MWAC	3.986	51,05,000	57,75,670	88.4%
FY 2021-22	Solar	Group Captive	20MWDC/15MWAC	3.986	50,80,000	63,02,490	80.6%
FY 2022-23	Solar	Group Captive	20MWDC/15MWAC	3.986	76,20,000	86,57,110	88.0%



Investment made : 90 cr’s
Group total capacity share for our building : 4MW / 27% of total capacity



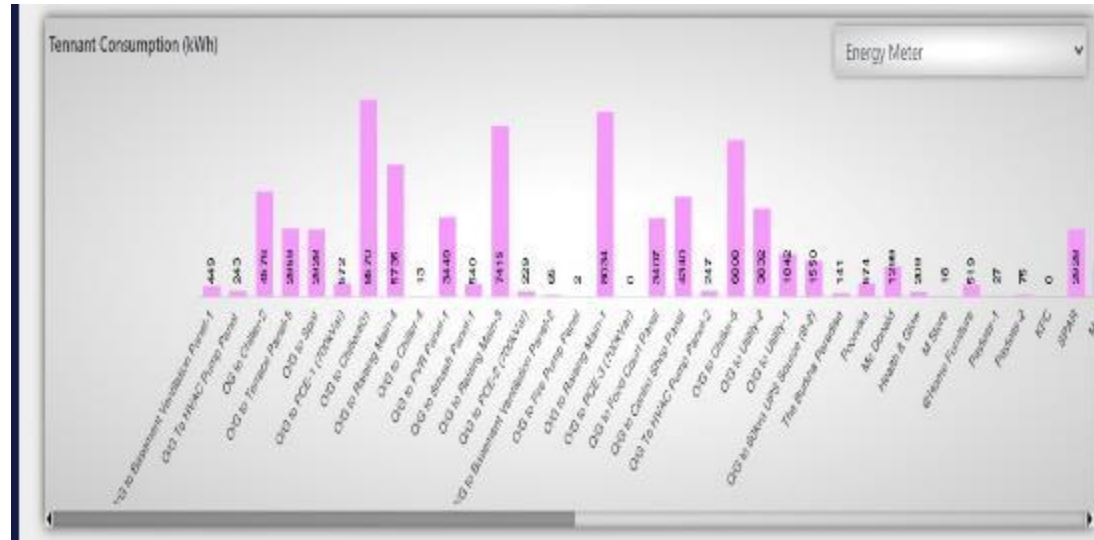
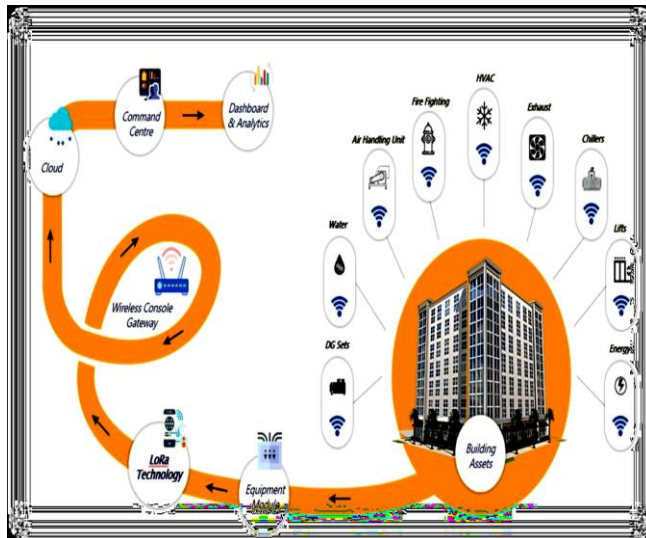
IOT Module for BTU Meters & Energy meters



IOT module will collect the data from all energy and BTU meters and sends the data to the cloud server which is displayed in the dashboard

The dashboard has user-friendly interface which is helpful

- For easy analysis of energy consumption cost centre wise and could monitor performance of each machinery.
- The status and the health of the machinery can be observed and analyzed in the comfort of one's couch.
- Can generate the energy consumption for tenant monthly billing which reduces our human interference as well as errors.

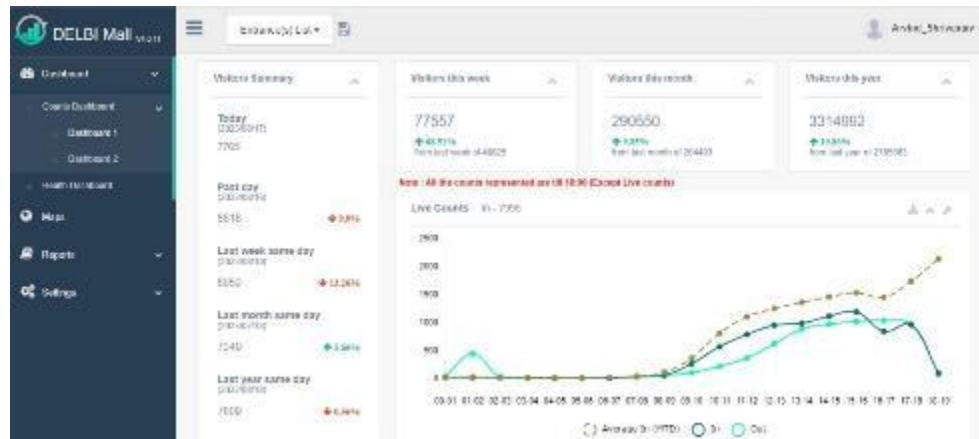


BMS & CERTIFICATION

IOT Based Football Counting Machines

We have installed the footfall counting device at all mall entrances and exits to count how many people are entering and exiting the property. It helps us to

- Set a target for energy intensity per footfall
- Control the common area AHU's and chiller set points based on occupant density



Fiza by nexus mall was certified with Platinum IGBC certification in the year 2022 for sustainability and green initiatives of the building.

IGBC CERTIFICATION –PLATINUM - 2022



GREEN HOUSE GAS EMISSION:

Scope 1 : Diesel & LPG

Scope 2 : Energy Consumption



S. No.	Particulars	Units	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
1	Scope 1 Emissions	TCO2e	53.08	96.04	189.50	85.42
2	Scope 2 Emissions	TCO2e	3,706.64	206.43	499.95	245.84
Total Operational Emissions		TCO2e	3,759.72	302.47	689.45	331.27

S. No.	Particulars	Units	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
A	Emission Intensity as per Footfall	TCO2e/1000 Footfall	0.776	0.123	0.242	0.072
B	Emission Intensity as per Revenue	TCO2e/Million INR	1.445	0.202	0.356	0.115
C	Emission Intensity as per leasable area	TCO2e/100 Sq. Ft.	0.531	0.043	0.097	0.047

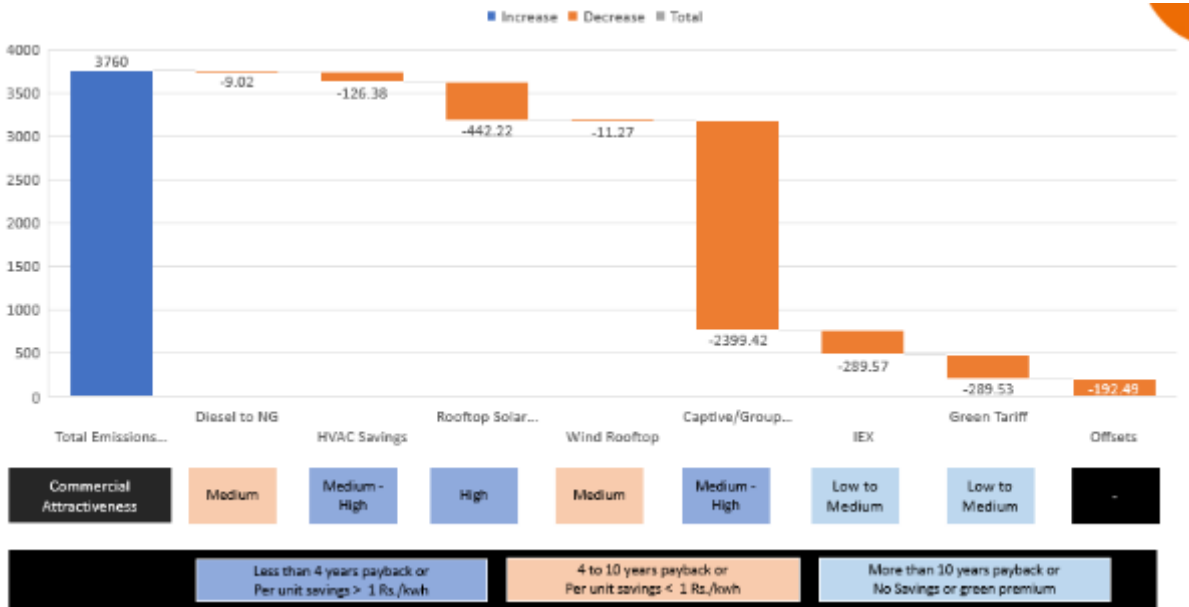
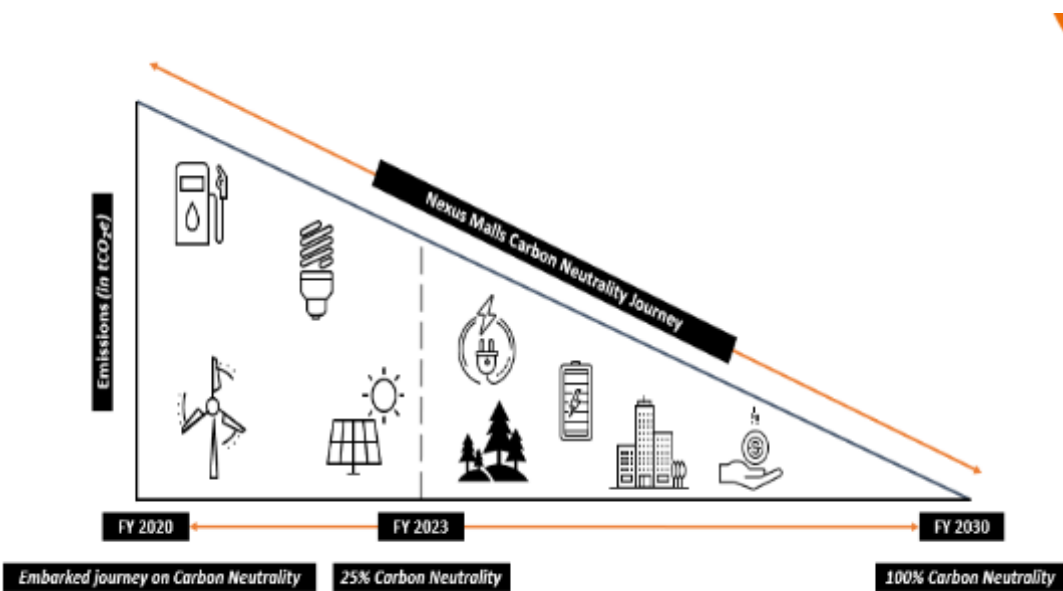
Indoor Air Quality								
Parameters	CO2 in PPM	PM 2.5 in µg/M3	PM10 in Mg/M3	CO in PPM	O3 in µg/M3	TVOC in PPM	SO2 in PPM	NO2 in PPM
Results	640	5	0.048	BDL	Nil	BDL	BDL	BDL

ROAD MAP FOR ACHIEVING CARBON NEUTRALITY



Entity	Baseline Year	Baseline Emissions (tCO2e)	Target Year	Current Emissions FY23(tCO2e)	Current Progress in FY23
Nexus Select Trust	2019-20	69,276.51	2029-30	60,341.32	-12.90%
Fiza by Nexus	2019-20	3,759.70	2029-30	330.45	-91.19%

For Fiza by Nexus, the Renewable energy share was 0% in the baseline inventory but in the recent years more focus was on increasing the renewable energy sources. In FY23, for Fiza by Nexus the renewable energy share increased by more than 88% which has contributed significantly in reducing the emissions



CARBON NEUTRALITY ACTION PLAN

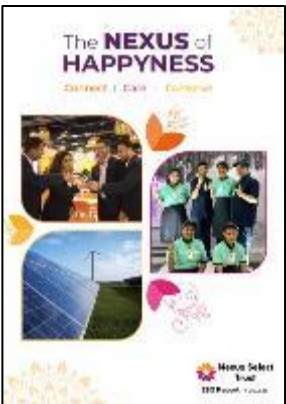


Public Disclosure

Nexus has published 3 ESG Reports



ESG Report FY 20-21



ESG Report FY 22-23



ESG Report FY 21-22



Target Year 2030

Nexus commitment for Net Zero

From a long-term perspective, our goal is to achieve carbon neutrality (Scope 1 and Scope 2) for our operational assets by 2030.

We have developed a comprehensive ESG strategy and decarbonization roadmap to positively impact our stakeholders, environment, and the larger ecosystem. Our six strategic pillars have multiple focus areas, defined KPIs, targets, and implementation plans.

Signatories



We have become a signatory to the India Business & Biodiversity Initiative, strengthening our commitment to preserving biodiversity.



We have joined The Task Force of Climate Related Financial Disclosures (TCFD). We ensure that our climate-related disclosures are consistent with the TCFD guidelines.



We have become a member of UNGC (United Nations Global Compact), committing to the corporate responsibility initiative and embracing UNGC's principles of upholding human and labour rights, protecting the environment, and implementing anti-corruption practices.



We have adopted the WASH pledge developed by the World Business Council for Sustainable Development and its member companies to increase access to safe Water, Sanitation, and Hygiene.

AWARDS AND RECOGNITION OF NEXUS



Won 10 awards including “The Most Admired Centre’ of the Year



Recognised as ‘The Economic Times Best Organisation for Women 2023’



Great Place to Work- Certified™ for the third year in a row



Awarded Best Workplaces for Women in 2022

S&P Dow Jones Indices

A Division of S&P Global

Overall Score

61

We scored 61 in our first DJSI (Dow Jones Sustainability Indices) assessment, putting us in the 94th percentile among the 523 companies assessed.

Environment

Nexus 64 | Industry Mean 23 | Industry Best 98

Social

Nexus 68 | Industry Mean 21 | Industry Best 87

Governance

Nexus 46 | Industry Mean 28 | Industry Best 87



76

Our first-time participation in the Global Real Estate Sustainability Benchmark (GRESB) exercise earned us a score of 76 with a 3-star green rating

BSI ASSURANCE STATEMENT:



Inspiring trust for a more resilient world.

INDEPENDENT ASSURANCE

OPINION STATEMENT

Statement No: SRA-IND-772414

Nexus Select Trust ESG Report 2022-23

The British Standards Institution is independent to Nexus Select Trust (NST) and has no financial interest in the operation of NST other than for the assessment and assurance of this report.

This independent assurance opinion statement has been prepared for NST only for the purposes of assuring its statements relating to its ESG report, more particularly described in the scope, below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This statement is intended to be used by stakeholders & management of NST. The stage 1 assurance was completed using hybrid model of onsite visits and remote assessment using immersive techniques. More than fifty percent of the sites covered in scope were visited onsite to verify the claims. The data for remaining sites were verified and assured remotely, which was conducted over Microsoft Teams video-conferencing tool, where the assessor and the client representatives connected through the computer systems and internet.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by NST. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to NST only.

Scope

The scope of engagement agreed upon with NST includes the following:
1. The assurance covers the ESG Report 2022-23 of the NST, prepared "with reference to" GRI Standards, 2021 and focuses on systems and activities of Nexus Select Trust,



Inspiring trust for a more resilient world.

- GRI 302: Energy 2016 - 302-1, 302-2, 302-3, 302-4
- GRI 303: Water & Effluent 2018 - 303-3, 303-4, 303-5
- GRI 305: Emissions 2016 - 305-1, 305-2, 305-3, 305-4, 305-5
- GRI 306: Waste 2020 - 306-3, 306-4
- GRI 401: Employment 2016 - 401-1, 401-2, 401-3
- GRI 403: Occupational Health and Safety 2018 - 403-3, 403-5, 403-9
- GRI 404: Training & Education 2016 - 404-1, 404-2
- GRI 405: Diversity and Equal Opportunity 2016 - 405-1
- GRI 413: Local Communities 2016 - 413-1
- GRI 418: Customer Privacy 2016 - 418-1

Competency and Independence

The assurance team was composed of Lead auditors experienced in industrial sector, and trained in a range of sustainability, environmental and social standards including GRI Universal Standard 2021, AA1000, ISO 10002, ISO 14001, ISO 45001, ISO 14064, ISO 50001 and ISO 9001, etc. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

Assurance Level

The type 1 moderate level of assurance provided is in accordance with AA1000 Assurance standard, AA1000AS v3 in our review as defined by the scope and methodology described in this statement.

Responsibility

It is the responsibility of NST's senior management to ensure the information presented in the ESG report is accurate. It is also left to the decision of the NST management on the publishing / submission of the report to any of their stakeholders. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Reliability

The assurance statement on the performance was issued based on the evidence collected from ground level provided by the employees of NST. The sample selection was on random basis and selection is done by BSI auditor



Inspiring trust for a more resilient world.

The assessment included all sites covering the 17 Malls (Nexus Shantiniketan at Bengaluru, Nexus Seawoods at Navi Mumbai, Nexus Ahmedabad one at Ahmedabad, Nexus Koramangala at Bengaluru, Nexus Whitefield at Bengaluru, Nexus Westend at Pune, Nexus Centre City at Mysuru, Nexus Celebration at Udaipur, Nexus Elante at Chandigarh, Nexus Hyderabad at Hyderabad, Nexus Vijaya at Chennai, Fiza by Nexus at Mangaluru, Nexus Amritsar at Amritsar, Nexus Esplanade at Bhubaneswar, Treasure Island at Indore, Nexus Indore Central at Indore, Select City Walk at Delhi), 2 Hotels (Oakwood Residences at Bengaluru, Hyatt Regency at Chandigarh) & 3 Offices (Vijaya Office at Chennai, Elante Office at Chandigarh, Westend Icon Office at Pune), India during the period from 1st April 2022 to 31st March, 2023. The assurance team was convinced that the performance information presented in the report are reliable and representative.

Quality

The quality of information was checked through cross verification of data. Field level measurement and records were verified with the procurement and supply chain invoices/bills. Interview with the responsible persons detailed the activities, maintenance, and process performance. The fitness of the measuring devices, frequency of measurement and recording, competency of the person concerned, and review & approval of information were checked and found in conformance.

Performance Information

NST ESG Report has addressed their Environmental, Social and Governance performance through GRI Universal Standard 2021 topic disclosures. The assurance team has evaluated the requirements of the GRI disclosures for general disclosures and those relevant to the material topics only. For the specific data presented in the report, minimal technical/compilation errors were identified during the sampling process which were corrected for the final report.

Based on the processes and procedures conducted with a moderate assurance, there is no evidence that the Environment, Social data, and information presented in the Nexus Select Trust ESG Report 2022-23 are not materially correct and are not a fair representation of their Environmental and Social performance.

For and on behalf of BSI:

Theruns Kotze

Theruns Kotze, Managing Director - IMETA Assurance
06th July 2023





THANK YOU