CII NATIONAL AWARD FOR EXCELLENCE IN ENERGY MANAGEMENT 2022

ALLIANZ SERVICES PVT LTD, INDIA

Category: Building / Ganga

FMS/ 17.08.2022

Strictly Confidential

Allianz

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CORPORATE OVERVIEW

01

CORPORATE OVERVIEW

Allianz Services Pvt. Ltd.

Allianz Services' mission is to be the global services platform for Allianz Group, improve run operations, drive productivity, create a superior customer experience, and contribute to the transformation of Allianz. Allianz Services Pvt. Ltd. in India, with 3,000+ employees, is the largest centre of competence for Allianz Services, which also operates in Romania, Mauritius, Italy, France, Singapore, Germany, and the United States. Allianz Consulting, the internal consulting division delivering management consulting services across the full value chain and to all Allianz entities worldwide, is also a part of Allianz Services. Globally Allianz Services has 5,600+ employees.

In India, Allianz Services Pvt. Ltd. operates from Trivandrum and Pune and is an ISO: 27001, ISO: 9001, CMMI Level 3 and an e-SCM Level 5 Certified organization. Allianz Services India is a centre of competence for Insurance operations Business consulting ,Consulting, Business Analytics and Financial Business Services. The organization is Great Place to Work-Certified by the Great Place to Work Institute, India.

OVERVIEW – GANGA FACILITY

02

ALLIANZ FACILITIES – AN OVERVIEW

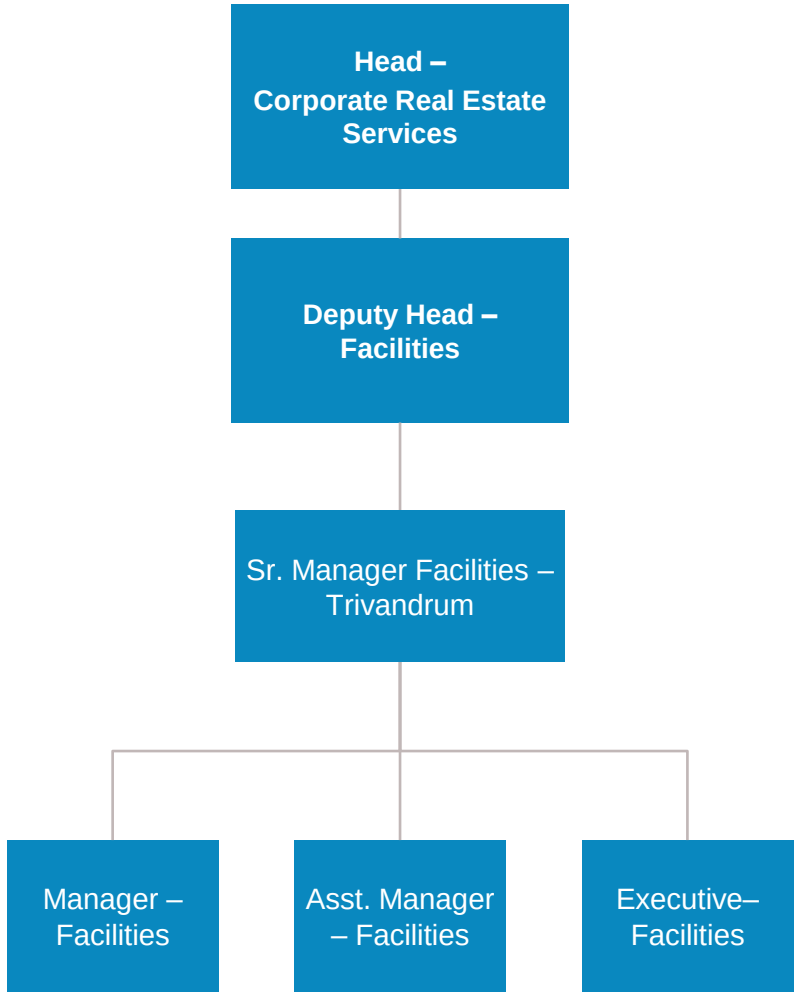
ENERGY OVERVIEW	
Total Contract Demand	238 kVA
Average Maximum Demand	162 kVA
Average Consumption	72,267.60 kWh/month
Average Electricity Cost	₹ 8,64,223.04 per month
UPS Capacity	365 kVA
Total AC tonnage	690 TR

GANGA
Area – 10,078 Sq.M
Seats – 1,689

TEAM STRUCTURE

03

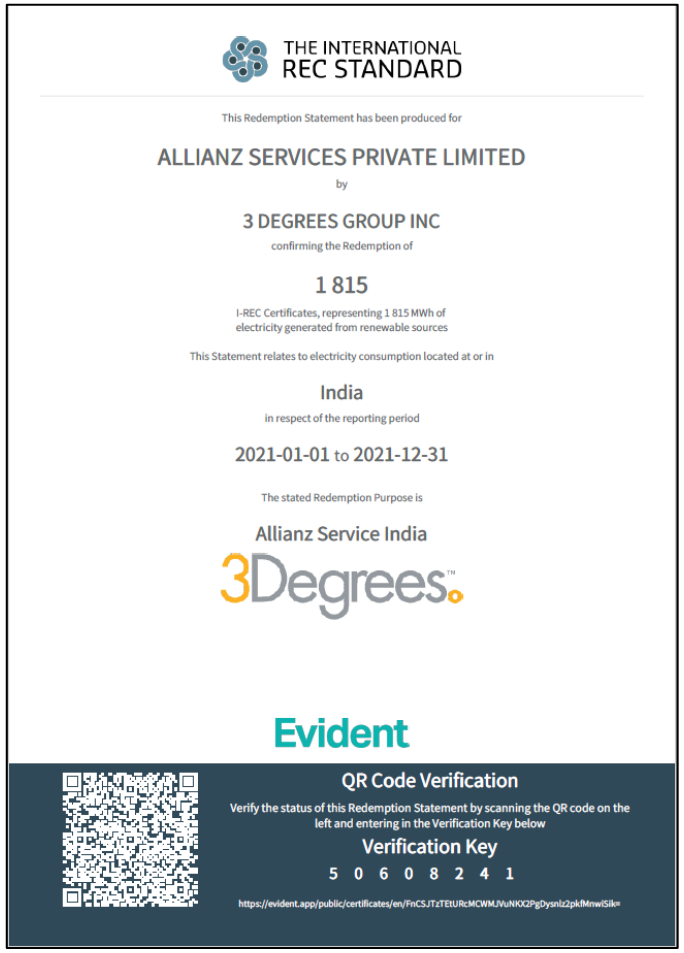
TEAM STRUCTURE – FACILITY MANAGEMENT SERVICES



ACHIEVEMENTS

04

ACHIEVEMENTS


THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

ALLIANZ SERVICES PRIVATE LIMITED

by

3 DEGREES GROUP INC

confirming the Redemption of

1 815

I-REC Certificates, representing 1 815 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

India

in respect of the reporting period

2021-01-01 to 2021-12-31

The stated Redemption Purpose is

Allianz Service India

3Degrees

Evident

QR Code Verification

Verify the status of this Redemption Statement by scanning the QR code on the left and entering in the Verification Key below

Verification Key

5 0 6 0 8 2 4 1

https://evident.app/public/certificates/en/FnCSJTzTEtURcMCWMJVuNKX2PgDysnlz2pkfMnwiSik=

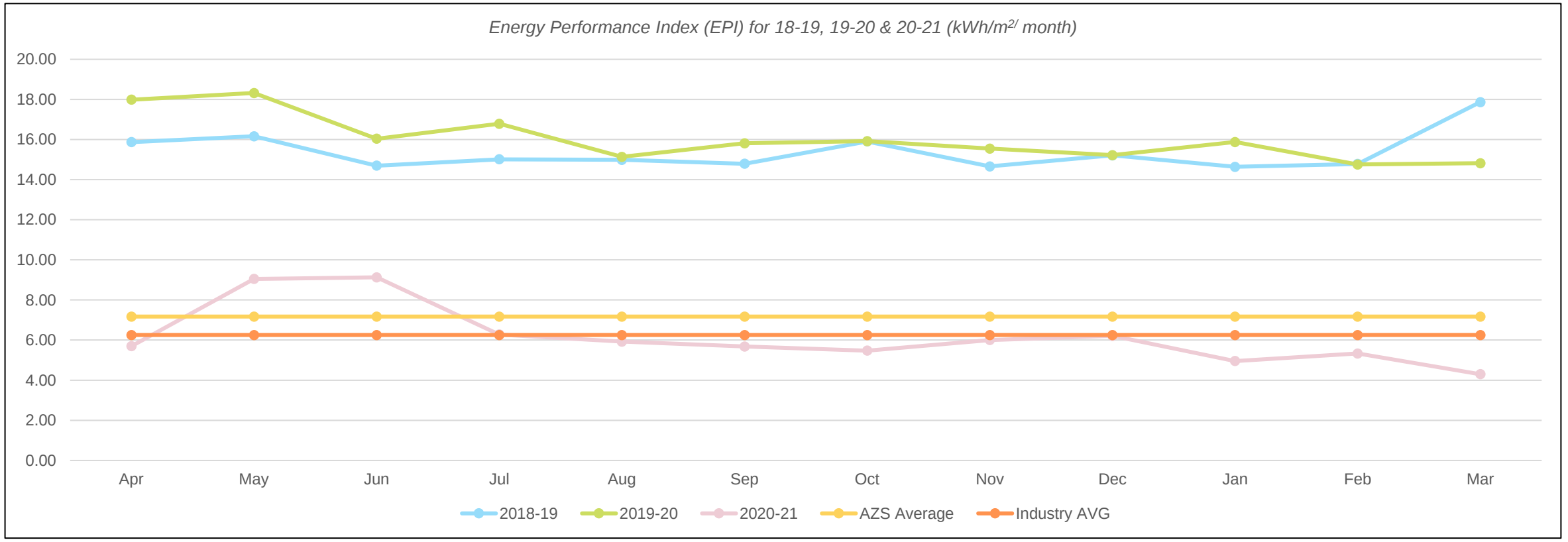
Energy Consumption	2020	2021	Reduction
Absolute Consumption (kWh/annum)	7,46,013.76	8,67,211.16	-16%
Average Per Capita Consumption (kWh/Capita/Month)	32.37	34.36	-6%
Per Sq.M Consumption (kWh/m2/annum)	6.17	7.17	-16%

- Facility uptime of 100% was ensured during 2021 with zero breakdowns
- **100% renewable energy through Energy Attribute Certificates (IRECs)**

ENERGY PERFORMANCE INDEX- GANGA

GANGA FACILITY AVERAGE – 7.17 kWh/m2/month

INDUSTRY AVERAGE – 6.25 kWh/m2/month



ENERGY CONSERVATION PROJECTS

05

PROJECTS – 2019-20

PROJECT # 1
INSTALLATION OF PHOTO LIGHT SENSORS FOR EMERGENCY LIGHTING IN GANGA FACILITY

Focus areas for implementation:

- Location and product identification
- Budget for implementation
- Procurement

Achievement:

Building	No. of Photo light sensors	Total investment (₹ million)	Total annual energy saving (kwh)	Total cost saving (₹ million)
Ganga	10	0.061	26280	0.2575

PROJECTS – 2019-20

PROJECT # 2

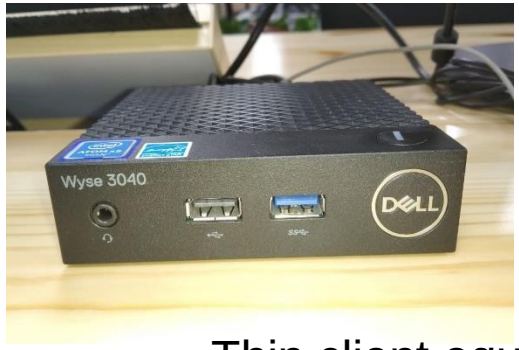
CONVERSION OF CPU TO THIN CLIENT – (REPLACEMENT OF CONVENTIONAL CPU WITH POWER SAVING THIN CLIENT EQUIPMENT)

Focus areas for implementation:

- Budget for implementation
- Mass procurement
- E Waste disposal

Achievement :

No. of CPUs replaced	Total investment (₹ million)	Total annual energy saving (kwh)	Total cost saving (₹ million)
1162	17.43	380019.75	3.72



Thin client equipment

Conventional CPU

PROJECTS – 2020-21

PROJECT # 1

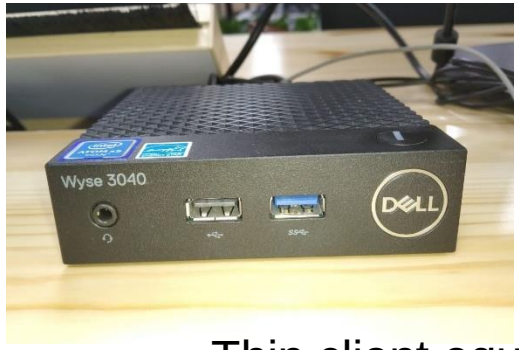
CONVERSION OF CPU TO THIN CLIENT – (REPLACEMENT OF CONVENTIONAL CPU WITH POWER SAVING THIN CLIENT EQUIPMENT)

Focus areas for implementation:

- Budget for implementation
- Mass procurement
- E Waste disposal

Achievement :

No. of CPUs replaced	Total investment (₹ million)	Total annual energy saving (kwh)	Total cost saving (₹ million)
800	12.00	261632	2.56



Thin client equipment

Conventional CPU

PROJECTS – 2021-22

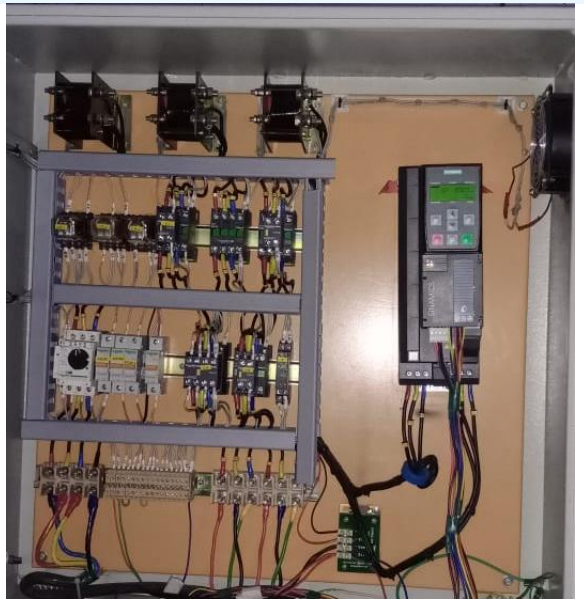
PROJECT # 1
VFD IMPLEMENTATION FOR AHU

Focus areas for implementation:

- Location and product identification
- Budget for implementation
- Procurement

Achievement:

Total investment (₹ million)	Total annual energy saving (kwh)	Total cost saving (₹ million)
1.615	62467.89	0.612



BEST PRACTICES

06

BEST PRACTICES – ENERGY CONSERVATION

1. ISO 14001 Environmental Management System certification for Allianz Services locations- WIP.
2. Occupancy sensors provided for optimizing the power consumptions of light fixtures
3. Photo light switch /sensors for optimizing power consumption
4. Utilization of E-Vehicles for employee transportation
5. Conducted thermographic audits for all the electrical installations for identifying anomalies.
6. Energy conservation awareness mailers circulated
7. Training for support staff on Energy Management
8. Close monitoring of energy data on daily and monthly basis

BEST PRACTICES – ENERGY CONSERVATION

9. Celebrated World Environment Day 2021 under the theme ‘Ecosystem Restoration’

10. Cost incentive from Electricity Board for maintaining desired power factor

11. BMS implementation for potential energy savings

12. Environmental Management System (EMS) reporting done for the CO2 emissions

13. Energy conservation awareness mails circulated

14. Strict monitoring of air leakages and measures to control.

ENERGY AUDIT CONDUCTED AT OUR FACILITY

SUSTENERGY FOUNDATION

Electrical Audit Report

Reference No: 1140033202
Inspection date: 25th August 2021 to 27th August 2021
Client: - M/s Allianz Services Pvt. Ltd., Ganga, Technopark Campus, Thiruvananthapuram
Contact person: Mr. Santhosh Godwin

Audit - General observations

Electrical inspection of all panel rooms and DBs were carried out to identify anomalies in electrical installations with respect to prevailing standards. A detailed assessment of LT installations has been carried out to identify improvement areas in safety, reliability and energy efficiency. Thermal imaging of entire facility installations were carried out as per NETA standards.

Thermal imaging Guidelines as per NETA (International Electrical Testing Association Inc.)

Temperature difference (ΔT) based on comparisons between similar components under similar loading.	Temperature difference (ΔT) based upon comparisons between component and ambient air temperatures.	Recommended Action
1ºC - 3ºC	1ºC - 10ºC	Possible deficiency; warrants investigation
4ºC - 15ºC	11ºC - 20ºC	Indicates probable deficiency; repair as time permits
-- -- --	21ºC - 40ºC	Monitor until corrective measures can be accomplished
>15ºC	>40ºC	Major discrepancy; repair immediately

Recommendations

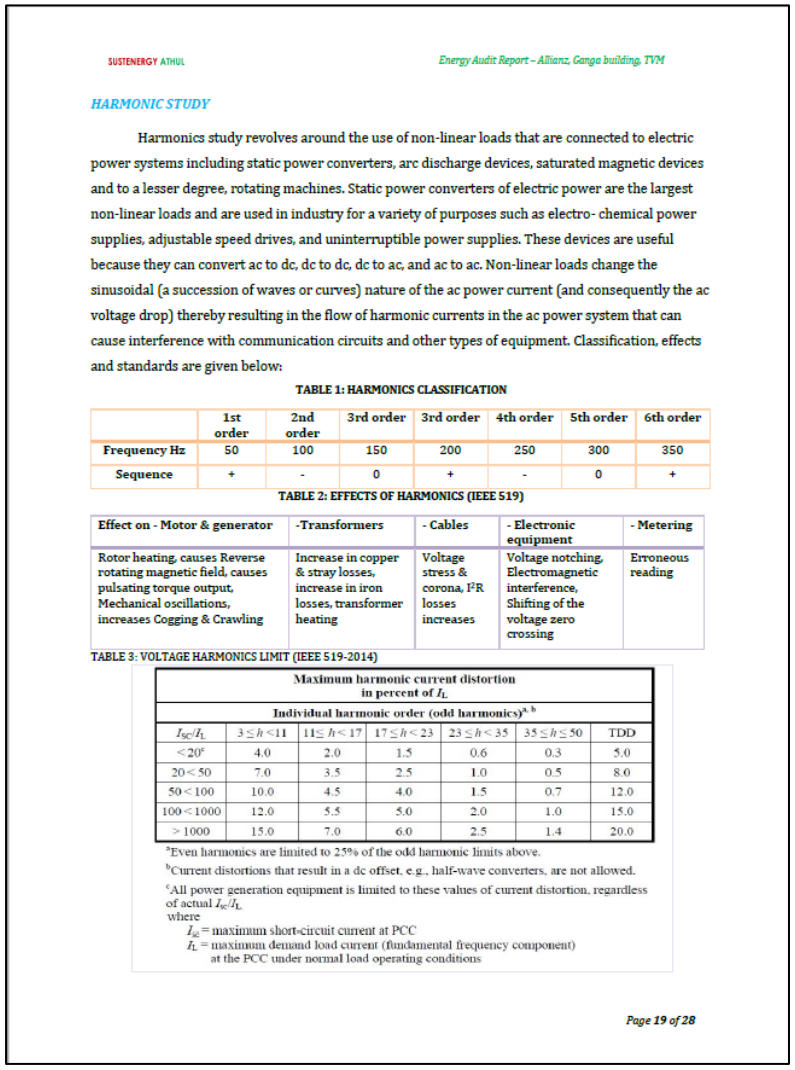
Severity rating

High – 8 nos Medium – 14 nos Low – 0 nos

Hidden Fire risk points 3 nos (Needs urgent attention)

Proposed Re Audit schedule After 6 months
Desired results during re audit 50% reduction in High & Medium level anomalies

3



SUSTENERGY ATHUL *Energy Audit Report – Allianz, Ganga building, TVM*

HARMONIC STUDY

Harmonics study revolves around the use of non-linear loads that are connected to electric power systems including static power converters, arc discharge devices, saturated magnetic devices and to a lesser degree, rotating machines. Static power converters of electric power are the largest non-linear loads and are used in industry for a variety of purposes such as electro- chemical power supplies, adjustable speed drives, and uninterruptible power supplies. These devices are useful because they can convert ac to dc, dc to dc, dc to ac, and ac to ac. Non-linear loads change the sinusoidal (a succession of waves or curves) nature of the ac power current (and consequently the ac voltage drop) thereby resulting in the flow of harmonic currents in the ac power system that can cause interference with communication circuits and other types of equipment. Classification, effects and standards are given below:

TABLE 1: HARMONICS CLASSIFICATION

	1st order	2nd order	3rd order	3rd order	4th order	5th order	6th order
Frequency Hz	50	100	150	200	250	300	350
Sequence	+	-	0	+	-	0	+

TABLE 2: EFFECTS OF HARMONICS (IEEE 519)

Effect on - Motor & generator	-Transformers	- Cables	- Electronic equipment	- Metering
Rotor heating, causes Reverse rotating magnetic field, causes pulsating torque output, Mechanical oscillations, increases Cogging & Crawling	Increase in copper & stray losses, increase in iron losses, transformer heating	Voltage stress & corona, I^2R losses increases	Voltage notching, Electromagnetic interference, Shifting of the voltage zero crossing	Erroneous reading

TABLE 3: VOLTAGE HARMONICS LIMIT (IEEE 519-2014)

Maximum harmonic current distortion in percent of I_L						
Individual harmonic order (odd harmonics)[a, b]						
I_{SC}/I_L	$3 \le h < 11$	$11 \le h < 17$	$17 \le h < 23$	$23 \le h < 35$	$35 \le h \le 50$	TDD
<20[c]	4.0	2.0	1.5	0.6	0.3	5.0
20< 50	7.0	3.5	2.5	1.0	0.5	8.0
50< 100	10.0	4.5	4.0	1.5	0.7	12.0
100< 1000	12.0	5.5	5.0	2.0	1.0	15.0
> 1000	15.0	7.0	6.0	2.5	1.4	20.0

[a]Even harmonics are limited to 25% of the odd harmonic limits above.
[b]Current distortions that result in a dc offset, e.g., half-wave converters, are not allowed.
[c]All power generation equipment is limited to these values of current distortion, regardless of actual I_{SC}/I_L.
where
I_{SC} = maximum short-circuit current at PCC
I_L = maximum demand load current (fundamental frequency component) at the PCC under normal load operating conditions

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- Energy Audit completed in Aug 2021
- Activity planned during the lean period (pandemic) to study the entire system without any interruptions
- Encash the opportunity to study the installations to check the system healthiness

PERIODIC THERMOGRAPHIC AUDIT

Inspection Report

Report Date	25-08-2021		
Company	M/s Sustenergy Foundation	Customer	M/s Allianz Services Pvt. Ltd.
Address	277-N Pathinaruparayil Arcade, Chalukunnu, Kottayam- 686001	Site Address	Ganga, Technopark Campus, Kariyavattom, Trivandrum
Thermographer	Mr.Sreekumar	Contact Person	Mr. Santhosh Godwin

Image and Object Parameters

Text Comments

Camera Model	FLIR E40
Image Date	25-08-2021 17:19:58
Image Name	IR_33016.jpg
Emissivity	0.95
Reflected apparent temperature	20.0 °C
Object Distance	1.0 m

Description

3rd floor LHS Workstation- LDB-2, Incomer Y phase- Improper crimping, needs checkup and recrimping.

3 (11)

Inspection Report

Report Date	25-08-2021		
Company	M/s Sustenergy Foundation	Customer	M/s Allianz Services Pvt. Ltd.
Address	277-N Pathinaruparayil Arcade, Chalukunnu, Kottayam- 686001	Site Address	Ganga, Technopark Campus, Kariyavattom, Trivandrum
Thermographer	Mr.Sreekumar	Contact Person	Mr. Santhosh Godwin

Image and Object Parameters

Text Comments

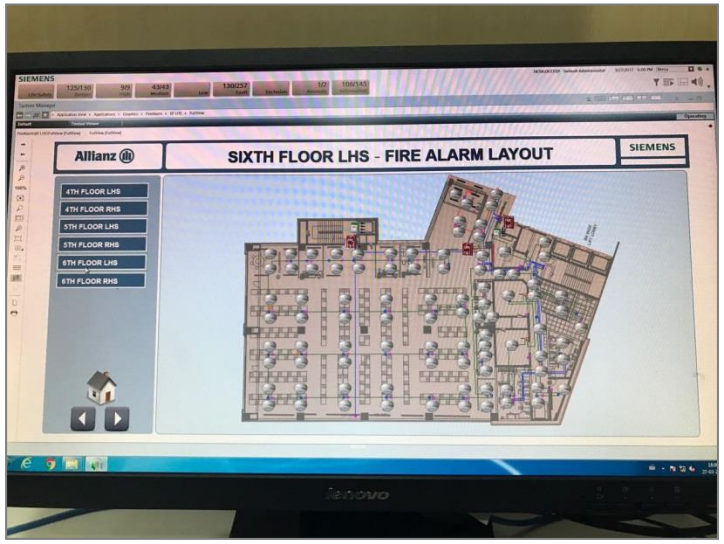
Camera Model	FLIR E40
Image Date	25-08-2021 15:37:34
Image Name	IR_12907.jpg
Emissivity	0.95
Reflected apparent temperature	20.0 °C
Object Distance	1.0 m

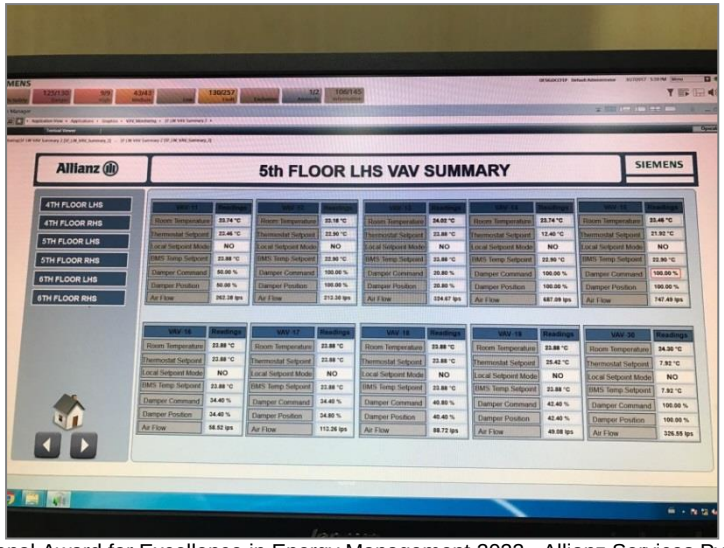
Description

4th floor RHS Electrial room- Wing B, AHU VFD panel-2, Incomer Connector R phase- Improper contact area, needs checkup and repair.

1 (11)

BMS IMPLEMENTATION FOR ENERGY SAVINGS





- Scheduler for AHU operation in order to reduce consumption
- Fine tuning of floor cooling which helps to control overall energy consumption
- Actively monitor the effectiveness and status of important safety systems such as fire alarms, smoke detectors and carbon dioxide detectors
- Data is consolidated onto a single system to improve reporting, information management and decision-making
- Data analysis to optimize use of equipment running in facility considering-temperature, duration, peak hours.

CII National Award for Excellence in Energy Management 2022– Allianz Services Pvt. Ltd.

TRAININGS - ENERGY MANAGEMENT

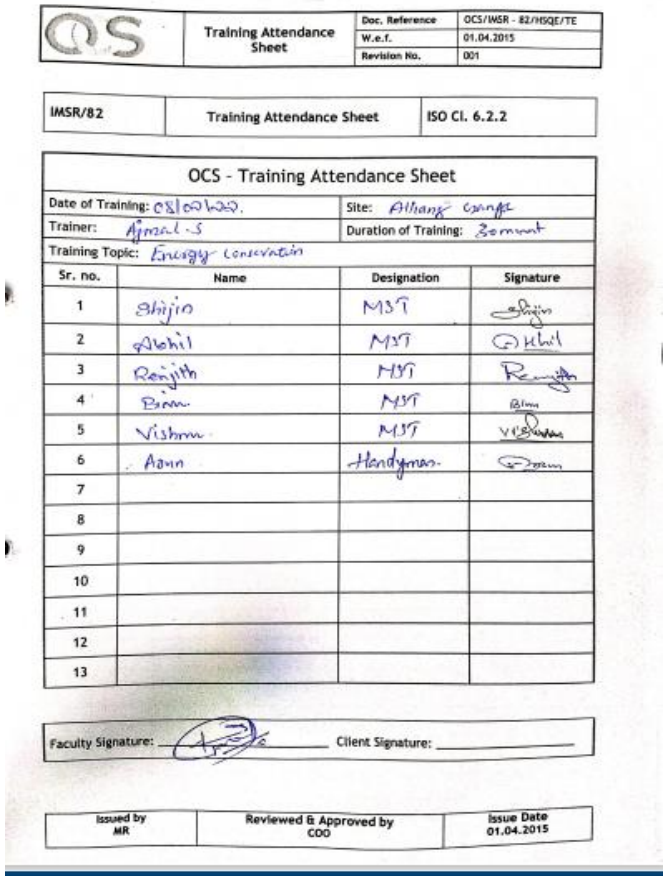
GREEN WEEK 2021

- Organization wide Green week celebrated during September 27th to October 1st, 2021
- Dedicated day for Energy & CO2 emission
- Two special sessions were hosted from India on September 28th in association with the speakers from Sustenergy Foundation India.
- Topic covered:

i. How to conserve Energy
ii. Clean energy imperatives in Net Zero paradigm

- Event stats:

- 17 online events
- 13 hours dedicated to sustainability topics
- 34 speaker
- Approximately 1300 participants in total



QS | Training Attendance Sheet | Doc. Reference: OCS/IMSR - 82/HSQE/TE | W.e.f.: 01.04.2015 | Revision No.: 001

IMSR/82 | Training Attendance Sheet | ISO Cl. 6.2.2

OCS - Training Attendance Sheet

Date of Training: 08/09/2021 | Site: Allianz campus
Trainer: Ajmal.S | Duration of Training: 30 mins
Training Topic: Energy conservation

Sr. no.	Name	Designation	Signature
1	Shijin	MST	
2	Akhil	MST	
3	Renjith	MST	
4	Binu	MST	
5	Vishnu	MST	
6	Asan	Handyman	
7			
8			
9			
10			
11			
12			
13			

Faculty Signature: _____ Client Signature: _____

Issued by: MR | Reviewed & Approved by: COO | Issue Date: 01.04.2015

Topic covered during support staff trainings:

1. Individual responsibility towards energy saving
2. Check points during daily rounds
3. Tips to reduce energy consumption at home

EMS REPORTING

- As part of global emission reporting, CO2 emissions of Allianz Services Pvt. Ltd. is within the benchmark.
- Energy Attribute Certificates, Plastic free offices, Digitalization and paperless operations are helping in reducing the CO_2 emissions

			Balance Sheet for Environmental Reporting (per employee)	Total CO2								
				012.2017	y-3 (012.2018)	%dev (y-4 vs. y-3)	y-2 (012.2019)	%dev (y-3 vs. y-2)	y-1 (012.2020)	%dev (y-2 vs. y-1)	(012.2021)	%dev (y-1 vs. sel)
Consolidation unit		Building		KG/ NO	KG/ NO	%	KG/ NO	%	KG/ NO	%	KG/ NO	%
IN0009	Allianz Services Private Ltd.	#	AZ/ IN/ #	X	X	X	X	X	X	X	X	X
		1	AZ/ IN/ 1	2,561.3425	2,019.7124	-21.1	2,538.6971	25.7	993.7923	-60.9	6.8539	-99.3
		2	AZ/ IN/ 2	2,286.3276	1,463.1459	-36.0	64,682.2789	4,320.8	650.3624	-99.0	3.3328	-99.5
		3	AZ/ IN/ 3	2,062.5764	2,582.4511	25.2	3,543.3400	37.2	1,402.7280	-60.4	6.0680	-99.6
		4	AZ/ IN/ 4	2,331.2109	1,406.1444	-39.7	967.9470	-31.2	685.9680	-29.1	4.1870	-99.4
		5	AZ/ IN/ 5	1,828.1093	1,214.5627	-33.6	1,071.1226	-11.8	577.7483	-46.1	3.4635	-99.4
		11	AZ/ IN/ 11								6.0890	X
		14	AZ/ IN/ 14									
		15	AZ/ IN/ 15						429.3690	X	2.2570	-99.5
		16	AZ/ IN/ 16						1,208.2129	X	7.8146	-99.4
		Result		**2,721.7780**	**1,869.8151**	**-31.3**	**2,499.3826**	**33.7**	**954.6955**	**-61.8**	**90.9547**	**-90.5**
Overall Result				**2,721.7780**	**1,869.8151**	**-31.3**	**2,499.3826**	**33.7**	**954.6955**	**-61.8**	**90.9547**	**-90.5**

- All the parameters and the associated CO2 have decreased against prior years.
- 90.5% per employee CO2 reduction in Allianz Services Pvt. Ltd.
- CO2 emission has reduced due to use of renewable energy across the locations.

OE: Operating Entity
EMS: Environmental Management System

ACCOLADES

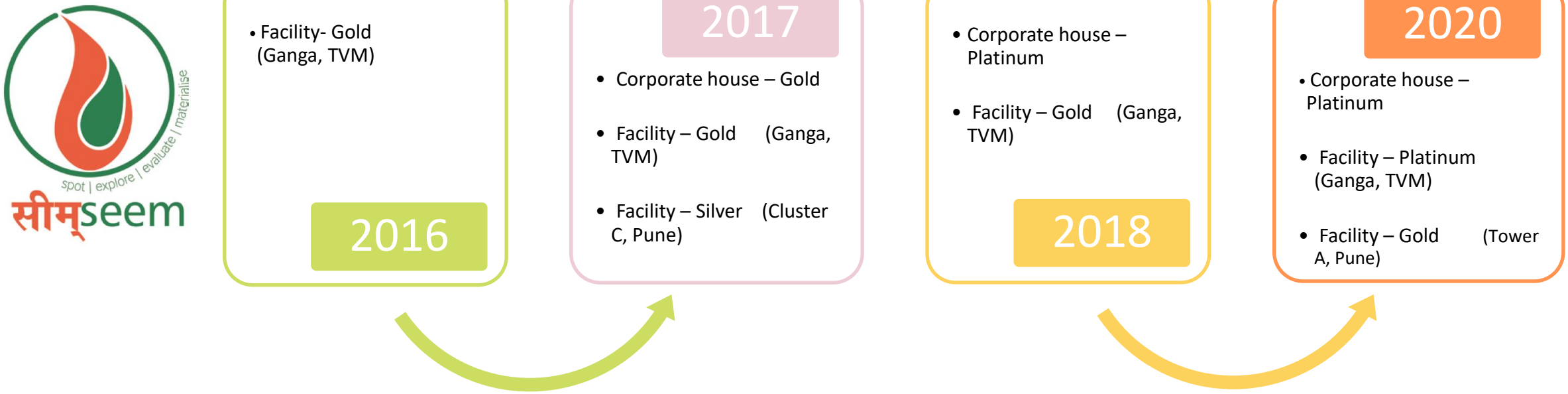
07

ACCOLADES

Proud winner of
Kerala State Energy Conservation Award 2019
Building Category

Certificate of Merit award
National Energy Conservation Award (NECA) 2020
BEE, Govt. of India

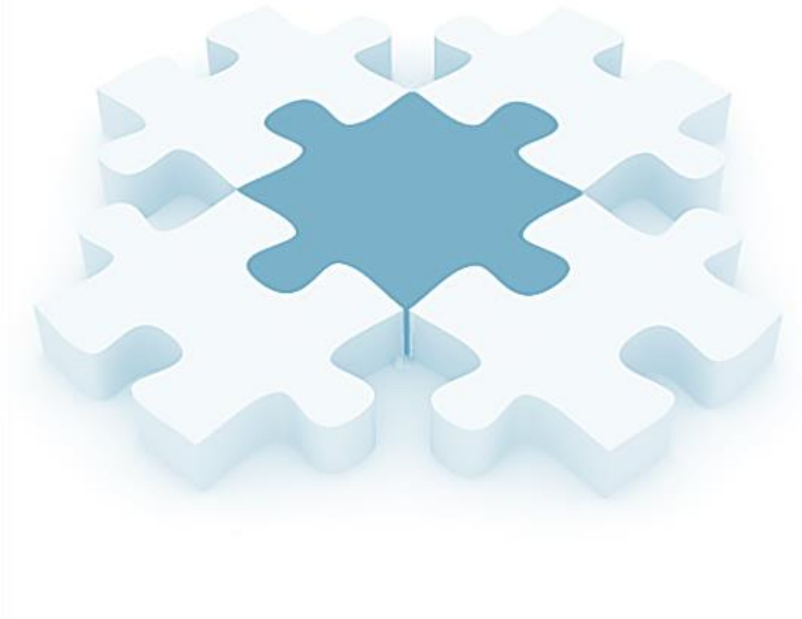
ACCOLADES JOURNEY @ SEEM



FUTURE PLANS

08

FUTURE PLANS



1. Implementation of ISO 50001 standards
2. Replacement of CFL lamps with LED lights
3. Water conservation by implementing the water saving adaptors
4. Day light sensors for the emergency lights
5. Campaign among employees for energy conservation
6. Introduction of E-Vehicle at Pune location and increase in existing fleets
7. EV charging station for employees at free of cost
8. LEED Certification for new premises
9. Renewable energy programs to switch from non-renewable source

THANK YOU