# Mumbai International Airport Ltd.

***Progress towards Sustainability & Energy Excellence***

**24th National Award for Excellence in Energy Management,2023**

## Presenters

P Logesh

DGM – E&M

Sourav Chakraborty
DM – E&M

## Moonshots..!!

ACA - ACI Level 4+ Certified Airport.
Target: Level 5 by 2025

IGBC Platinum Certified, under existing building category

Best Airport by size and region (>40 MPPA) for ASQ Awards,2022 – 6th consecutive year

Sustainability & Environment Award at Wings India,2022.

Net Zero by 2029

MIAL runs on 100% renewable energy

# INTRODUCTION

## Key Highlights:

- Major Segments: T1 → Domestic
  T2 → International+ Domestic
  CA → Corporate Aviation
  Cargo→ To handle Cargo Operation
  Airside→ Runway, Apron & Taxiway
  MLCP→ 2 Multi layer car parking.

- Once recorded the **busiest single runway airport in the world → >1000 flights per day**
- Handles more than **48 million passengers** in a year.
- **India's 1st Airport to Achieve ACI Health Accreditation**

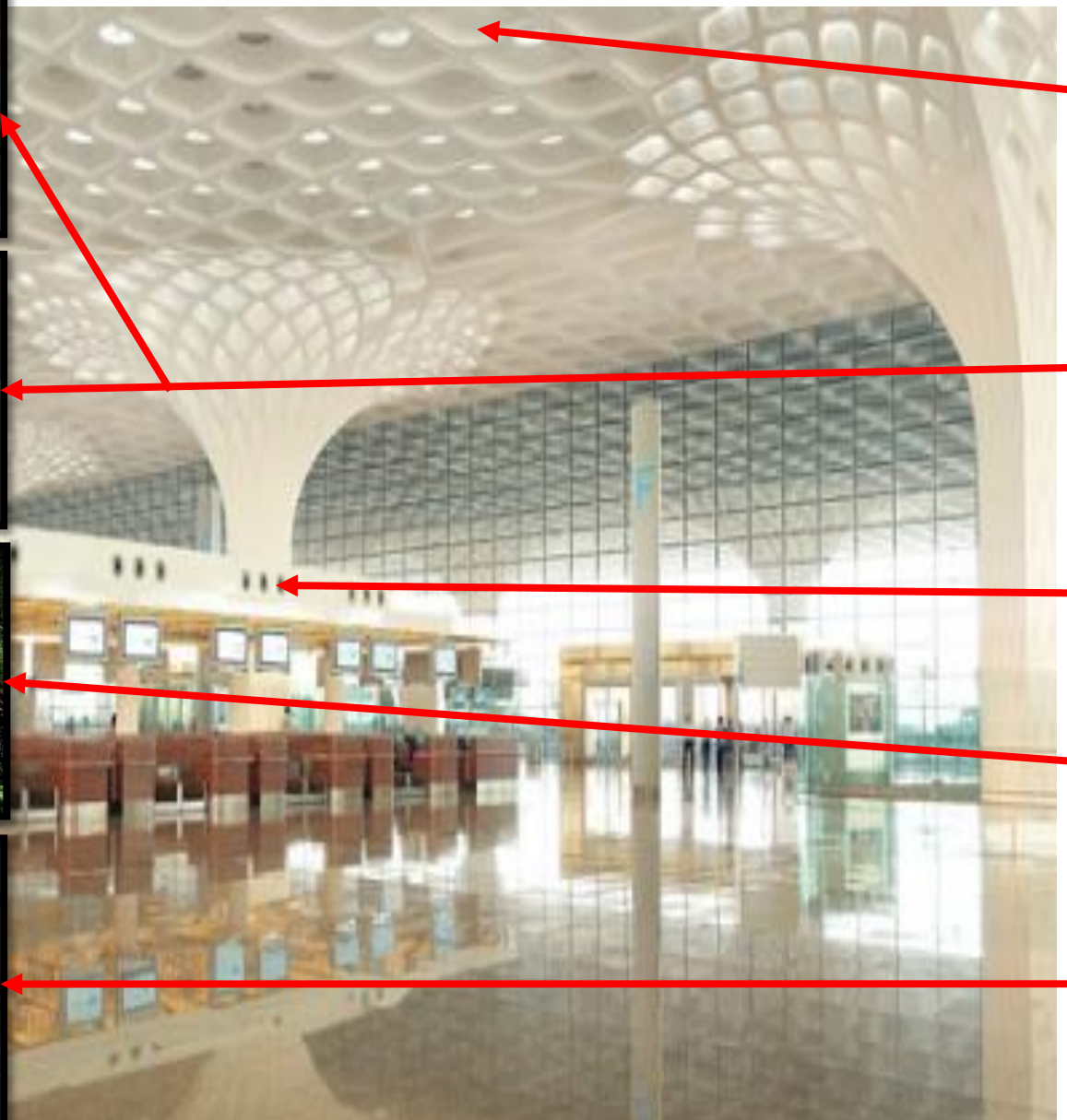
## Salient Features

Design of Terminal 2 is inspired from India's national bird – The Peacock

3 Km Multi story art wall with 7000 Pieces of Artwork and Artefacts

ATC Tower, tallest in India(Height - 83.2 Mtrs, Built up area is 2800 Sq. Mtrs.)

# Design Features



Roof → **Energy efficient TPO membrane.** It facilitates:

- Resistance to UV
- High reflective property(SR >0.8)

- Ample **Day Light harvesting**
- **Double glassed façade** to reduce heat ingress.

- SHGC: 0.23
- VLT: 60%

- **VAV controlled system** across terminal system to optimize HVAC consumption

- **Rich landscape of greenery** maintained in and across terminal → Reduce heat, upgrades air quality.

Provision of:

- **Task lighting** in offices
- **Occupancy sensors** in staircase, MLCP and lesser movement areas

# Energy Policy

Chhatrapati Shivaji Maharaj
INTERNATIONAL AIRPORT
MUMBAI

ENERGY POLICY

In pursuance of Adani group's Vision, mission and core values, Mumbai International Airport Limited (MIAL) shall strive to provide world class airport services and reinvent it as India's biggest aerotropolis, where the traditional airport nucleus of passenger and cargo infrastructure be shall reinforced by interdependent clusters of commercial and residential infrastructure to create the nation's busiest airport ecosystem.

We are committed to achieve such an ecosystem through ESG Strategy keeping in line with our Nation and Group's commitment towards NET Zero.

We are continuously focused on upgrading our systems, processes, procedures and work practices to improve energy performance and to ensure optimum utilization of energy.

MIAL shall achieve the above through the following:

- Comply to all legal and other requirements which apply to its energy use, consumption and efficiency.
- Improve Energy performance with specific focus on Energy Optimization for all facilities, equipment, processes, systems and ensure all equipment and systems run at their optimum efficiency.
- Continuous focus on technology upgradation to improve energy performance.
- Shall support the purchase of energy efficient products, services and design for energy performance improvement in all MIAL Operations.
- Creating awareness in energy conservation techniques by imparting training, conducting workshops and seminars for all employees, service providers and stakeholders.
- Ensuring the availability of necessary resources and all information required to achieve objectives, targets and improvement action plans decided on ongoing basis.
- Focus on renewable energy resources wherever feasible.
- Promoting active involvement of all stakeholders to follow best practices so that the energy improvement initiatives are driven to accomplish MAIL's policy on continual basis.
- Policy shall be communicated and accomplished at all functions in a structured manner.

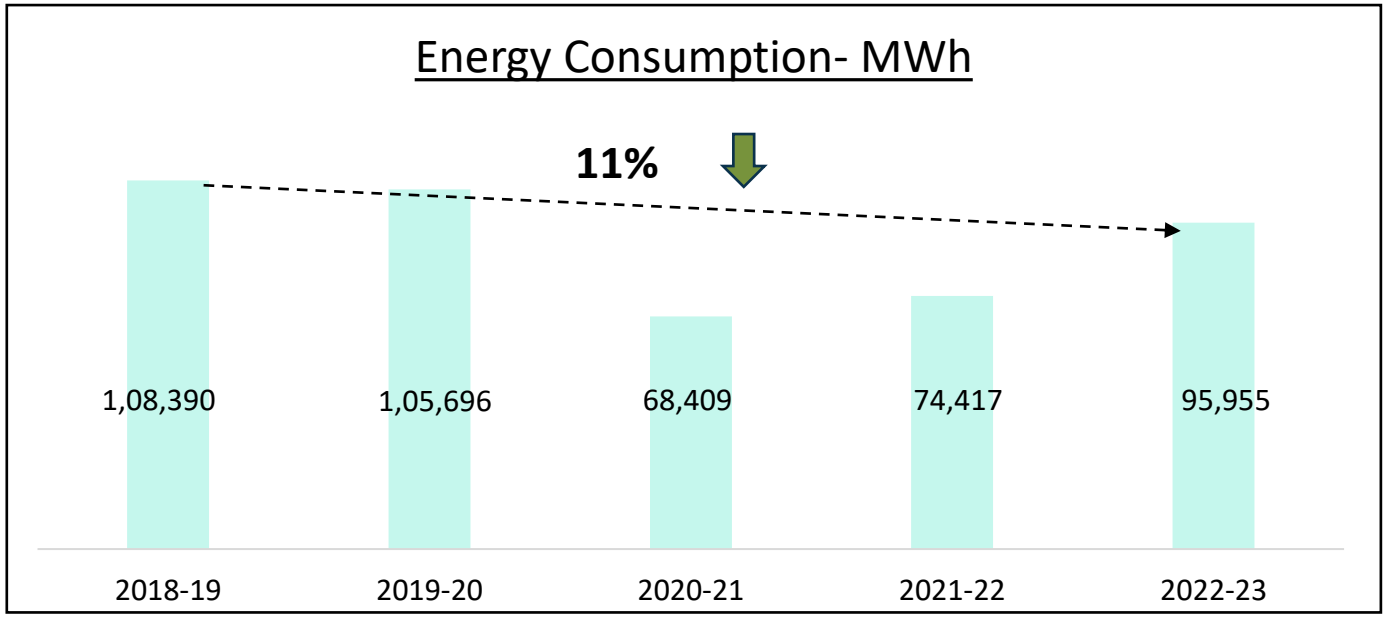
Prakash Tulsiani
Chief Executive Officer

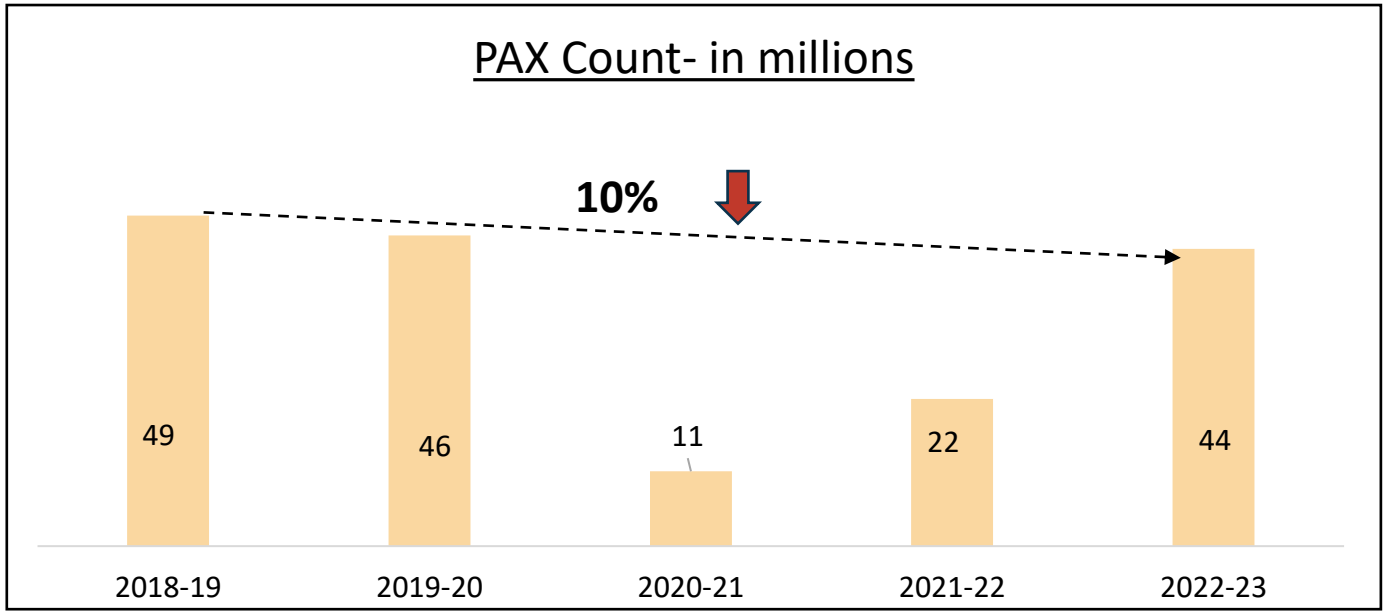
Date: 06/04/2022

**Major highlights:**

- Focus on energy optimization
- Use of energy efficient products
- Energy conservation awareness
- Using necessary resources to achieve targets
- Focus on Renewable energy
- Active involvements in energy conservation

# Energy Consumption




## Key Highlights

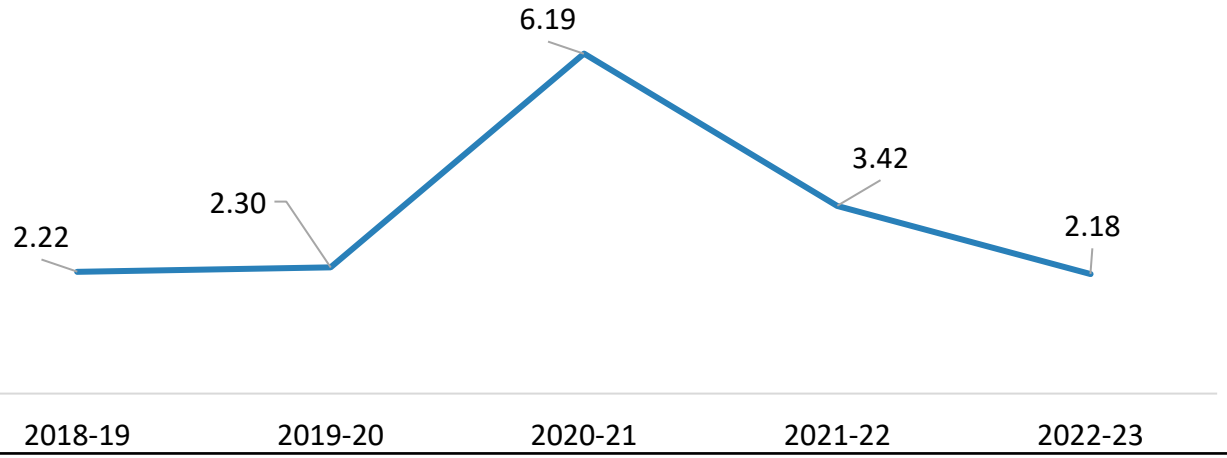
Energy Consumption reduced by 11% in last 5 years.
Key contributors include:

- **Technology Upgradation** → Latest energy efficient equipment
- Running equipment at their **optimum efficiency.**
  - ikw/TR for chiller – 0.60 (design data 0.63)
  - VFD controlled pumps for chillers, cooling towers and AHUs.
- Continuous focus on **Operational excellence** to reduce energy losses.
- Implementation of **IOT based systems**:
  - Temperature sensors
- Individual lamp control monitoring system
- **BMS & SCADA** for improved monitoring & control

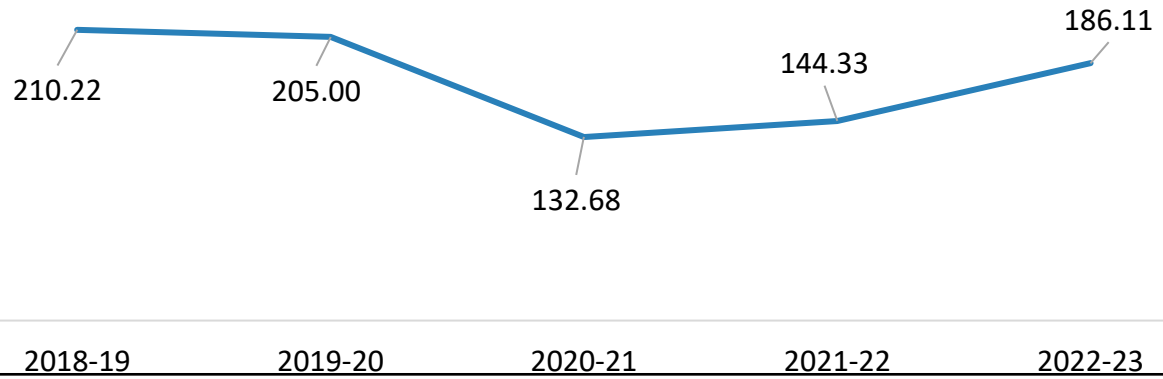
# Specific Energy Consumption (SEC)

Chhatrapati Shivaji Maharaj INTERNATIONAL AIRPORT MUMBAI

## Energy Consumption/PAX




## Energy Consumption/Area(sqm)

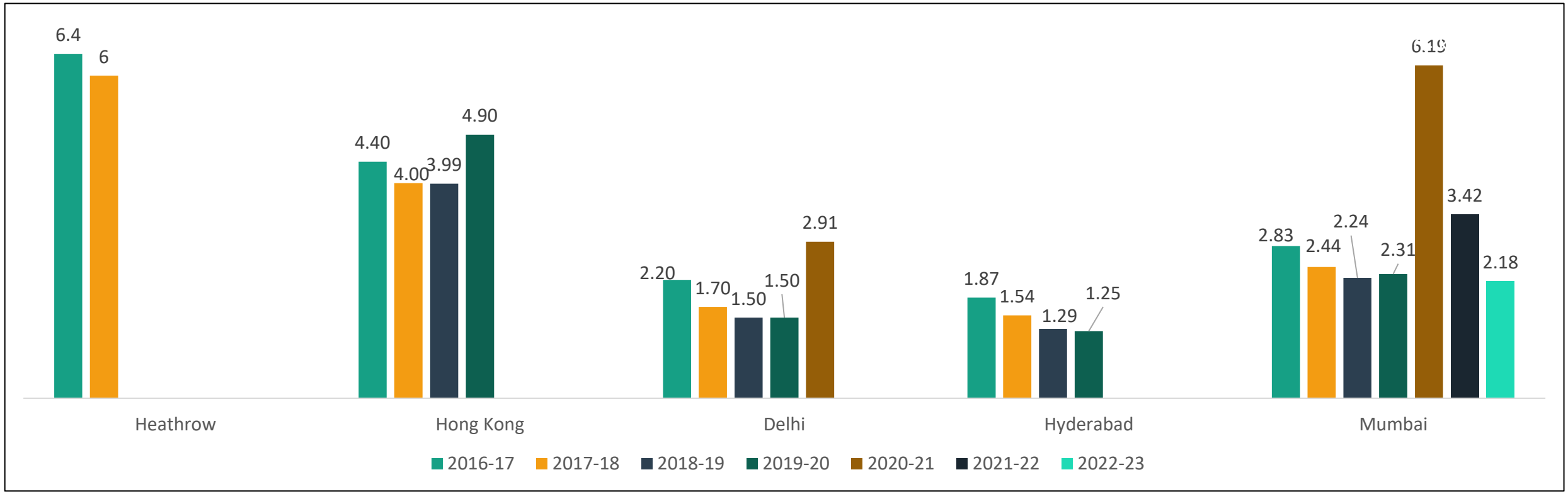



## Key Highlights

- Energy Consumption is not fully dependent on PAX count due to nature of load.
  - Fixed load ~40% → Does not depend on PAX
  - Variable load~60% → Partially dependent on PAX
  - Variable load more of area specific than PAX.
- Even though **PAX reduced by 10%** continuous focus on energy optimization, energy conservation measures have helped in **reduction of SEC by 2%** in last 5 years.

**Reduced SEC (Consumption/PAX) by 2% with respect to pre-covid level**

# National & Global Benchmark




## Key Factors Affecting Energy Benchmark

- **Climatic Zones** – Mumbai falls **in hot & humid zone** with little difference in ambient during summer & winter months so limited scope of optimization during winter.
- **Building Envelope** – AHUs in MIAL are mostly centralized(at ground floor) with vertical distribution, providing limited scope to switch off AHUs based on localized area of occupancy

**Strategy Formulated to reduce SEC by 10% in next 2 years.**

Key Drivers:

- Major Technology upgrade
  - IE4 motors in place of conventional motors
  - Direct driven fans for belt driven fans
  - Energy efficient chiller
  - IOT implementation.to reduce energy loss

# Energy conservation Projects, FY 2023-24 (1/2)

## Replacement of belt driven fan with EC fan in AHUs

### Project Brief:

- Existing AHU fans have belt driven assembly. It has been proposed to replace the same with direct driven EC fan.
- Project Cost: 5 Cr (For phase-1)
- Pilot Project successfully completed earlier

### Execution Plan:

- Project to be executed in phase-wise manner.
  - 1st phase – 50 AHUs
  - 2nd phase - Remaining 46 AHUs
- Proposed PDC for 1st phase – Mar'24
- EC fan to be used - Rossenburg

### Benefits:

- ❖ Energy saving : 30%
- ❖ Estimated Annual Energy Saving – 18 lakh Kwh
- ❖ Reduced Maintenance time
- ❖ Lower Maintenance Cost
- ❖ Provision of redundancy system
- ❖ Additional VFD not required.

Total **4 Energy Saving Projects** have been planned in FY 2023-24 ~ Estimated **Saving 21 lakh Kwh**

# Energy conservation Projects, FY 2023-24 (2/2)

## Conversion of TWY halogen lights to LEDs

**Project Brief:**

- Replace existing Halogen taxiway light to LEDs
- Project being executed in phase wise manner.
- Project Cost: 3 Cr
- Lamps to be replace: 270
- Reduction in Wattage/lamp: 50W
- Estimated Annual Energy Saving – 1.18 lakh Kwh

## Automation of air-curtains

**Project Brief:**

- Interlocking of air-curtains with sliding doors.
- **Problem:** Across terminal many doors are being used rarely. The air curtains above these gates runs for almost entire day. Being handled by multiple stakeholders its difficult to keep control.
- **Solution:** Air-curtains to be interlocked with doors, such they will run only when the doors are operational.
- Scope for optimization.
- Estimated Annual Energy Saving: 39,000 kwh

# Synopsis- Energy Saving Projects implemented in last 3 yrs.

| Year | No of Energy Saving Projects Implemented | Investments (INR Millions) | Electrical saving (million Kwh) | Thermal savings ( Million Kcal/ MTOE) | Impact on SEC-kwh/pax (Electrical, Thermal) |
|---|---|---|---|---|---|
| FY 2019-20 | 3 | 8.68 | 0.23 | - | 0.5% ⇩ |
| FY 2020-21 | 1 | 2 | 0.10 | - | 0.9% ⇩ |
| FY 2021-22 | 2 | 14 | 0.50 | - | 2.3% ⇩ |
| FY 2022-23 | 3 | 23.5 | 0.70 | - | 1.7% ⇩ |

- Each year **dedicated Capex budget gets allocated towards Energy Conservation Projects.**

  (In FY24 – allocated Budget is ~**9 Cr**)
- Apart from technology up gradation, special focus is also given to **operational optimization**, to reduce energy wastage.
- **Energy Management cell** in place to looks after all Energy conservation projects, monitor energy consumption and analyse variances.
- **Energy Review meetings** with top management on regular basis.

## Drivers for Energy Saving in FY2022-23

- IOT based temperature monitoring & control (Phase-1)

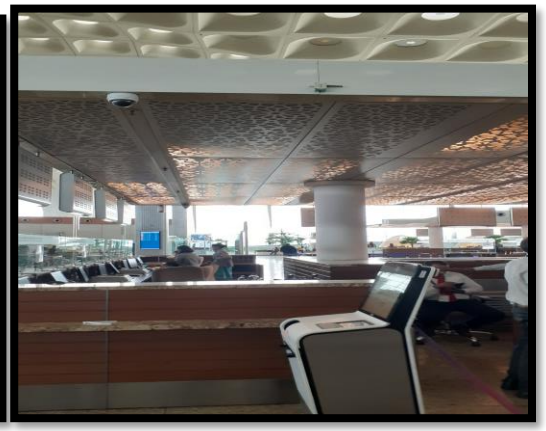
  **(Phase-2 planned in FY2023-24)**
- Replacement of Halogen lights of HHR to LEDs
- Operational Optimization (Achieved a saving of 10 lakh kwh)
  - Usage of outside air during winter season
  - Scheduling of AHUs and lighting system.
  - VFD based operation for motors.

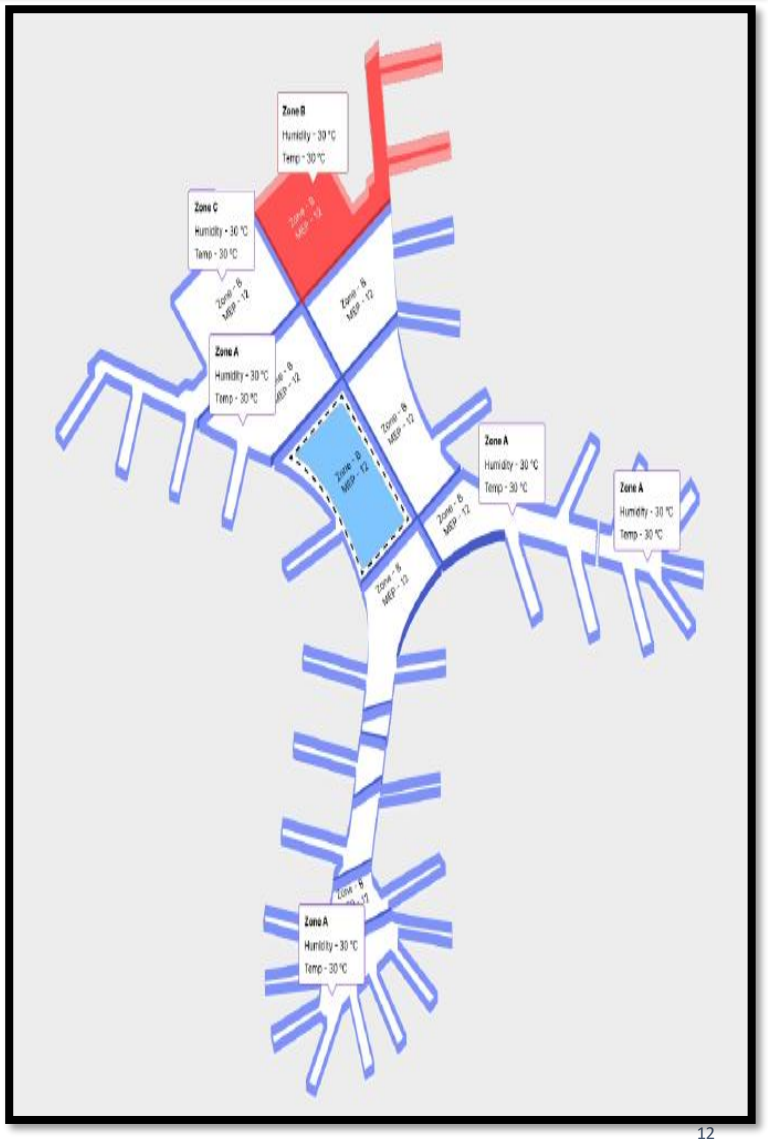
# Energy conservation Projects, FY 2022-23 (1/2)

## IOT based temperature monitoring & control (Phase-1)

**Project Brief:**

- Installation of IOT based temperature sensors across terminal building.
- This sensors helps to get real-time temperature update.
- All hot and cold pockets can be easily identified, and immediate actions can be taken.
- Provides improved scope for optimization.
- Estimated Energy Saving: 70,000 kwh



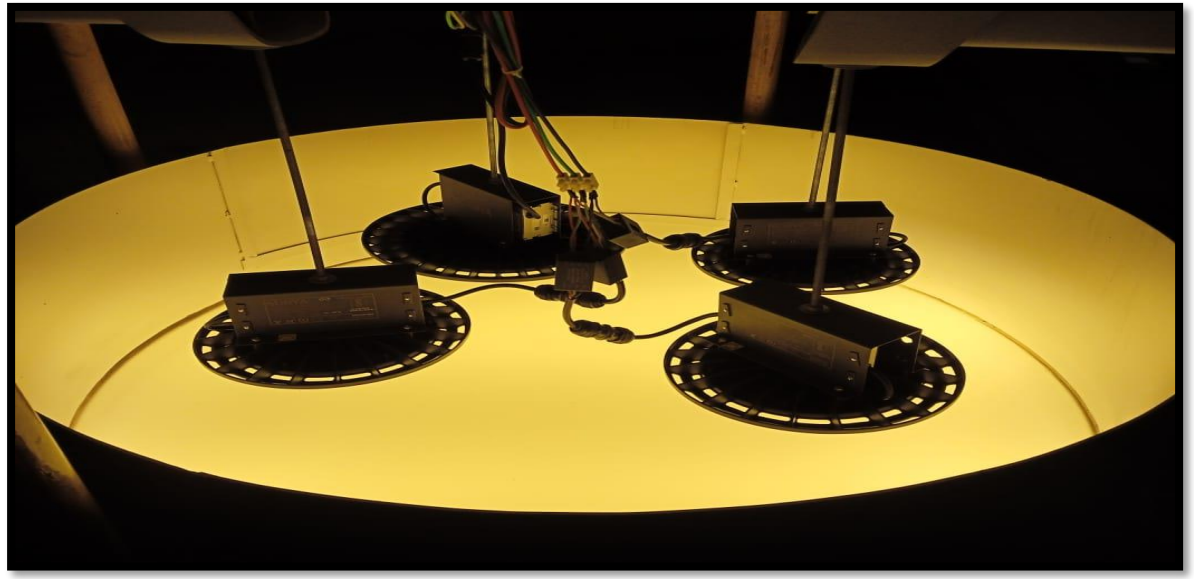
# Energy conservation Projects, FY 2022-23 (2/2)

## Replacement of Halogen lights of HHR to LEDs

**Project Brief:**

- Project Executed in FY 2022-23
- No of lamps replaced - 3000
- Project Cost ~ 3 Cr
- Reduction in Wattage/lamp: 50 W
- Estimated Annual Energy Saving – 6.5 lakh Kwh

The project was indeed challenging and possessed high risk because of height of roof, location is 24*7 operational and fully PAX facing area.



# Innovative Project – Waste Reduction in sustainable way

Chhatrapati Shivaji Maharaj International Airport Mumbai

## Transition from Paper towels and conventional warm dryers to HEPA filtered Jet High Speed Dryers

**Problem Faced:**

- Paper Towels: Misuse of towels while dispensing and littered .As per life cycle analysis had adverse impact on environment.
- Warm Handryer : takes 45 seconds to dry , is comparatively slow in drying and overheating cases due to high usage .They typically use 1500 Kw per hour.
- Few Studies reflected warm air hand dryers and paper towels were found to generate 70% more carbon emissions than the newest technology.

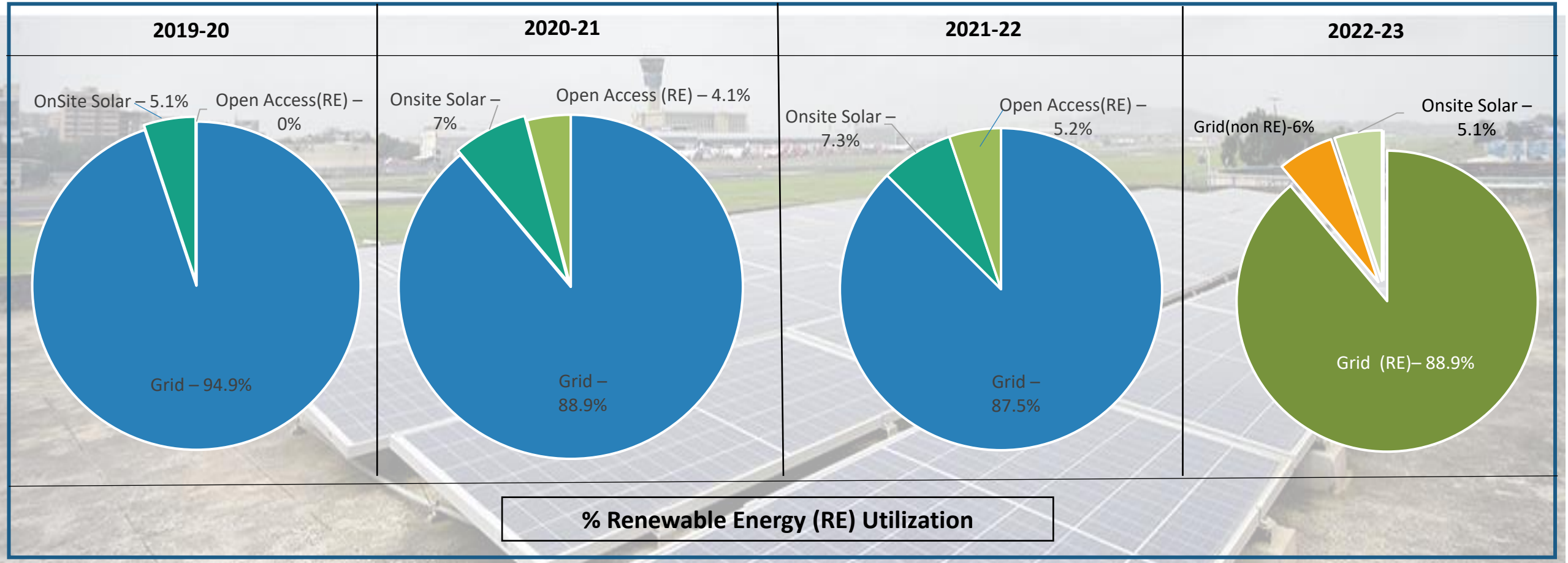
**Installation of Jet Speed Air blade Handryer –Dyson in passenger washrooms**

- The Dyson Air blade emits up to **85 per cent less $C0_2$ emissions** than paper towels and is supported with Hepa Filter to curb airborne viruses providing safe environment to passengers.
- 10-12 second dry time
- 500 Kw per hour

**Benefits /outcome**

- Environment impact reduced by 70 % emitted by paper towel and conventional handryer
- Safe Handryer solutions provides which combats bacteria and viruses 99.99 percent owing to Hepa Filter .
- Reduction of Plastic Bags used for collection of disposal of Mfold also reduced 12 ton annually .
- Mitigation of Energy and Trees used for Making pulp for paper towels
- Reduction of Energy by 77 % as compared to conventional hand dryer (ROI – 18 months)
- **Replication → This can be replicated in all areas**

# Utilization of Renewable Energy Sources




- Inspite of severe space constraint, MIAL has continuously strived to increase its RE share via be it onsite/Open Access/RE purchase

MIAL is the 1st Airport in India to install VAWT – A hybrid RE technology to harness both solar & wind energy.
24*7 RE generation solution. Current Installed capacity of VAWT – 40kwp

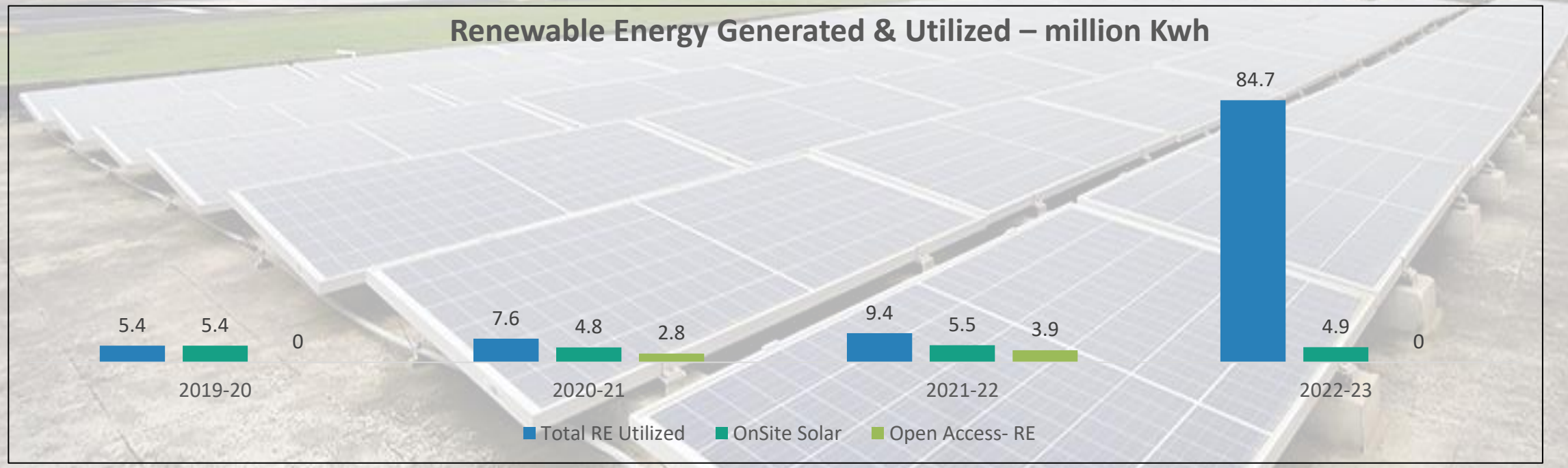
# Utilization of Renewable Energy Sources

**2019-20**
Installed Capacity-
**4.6MW**

**2020-21**
Installed Capacity-
**4.65MW**

**2021-22**
Installed Capacity-**4.66MW**

**2022-23**
Installed Capacity-
**4.70MW**




MIAL is incurring additional cost of Rs. 0.80/unit to procure 100% green power.

# Offsite Solar Generation Project ~ 100MW

**Project Plan:**
Generate RE-Hybrid (Solar + Wind) in different locations across India such that 100% load requirement is met for all airports

**Detailed Study:**
Load profile of all airports captured and analyzed
Total Requirement
**~100MW**

**RFP Floated:**
Entire project plan has been drafted and based on that RFP floated in market

**Bidder Response:**

Based on RFP response from market awaited

**Vendor Selection:**
Suitable vendor to be selected based on bidder response

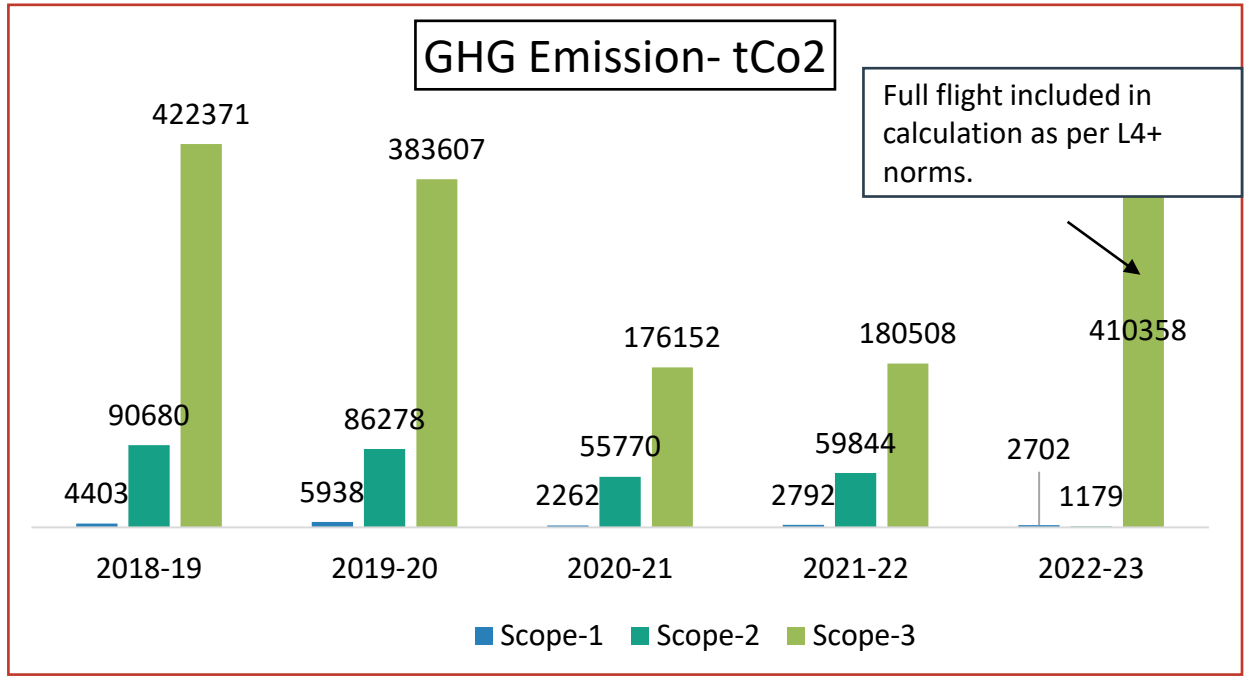
**Site Selection & Work Execution:**
Discussion with vendor to select suitable sites for RE generation and work execution

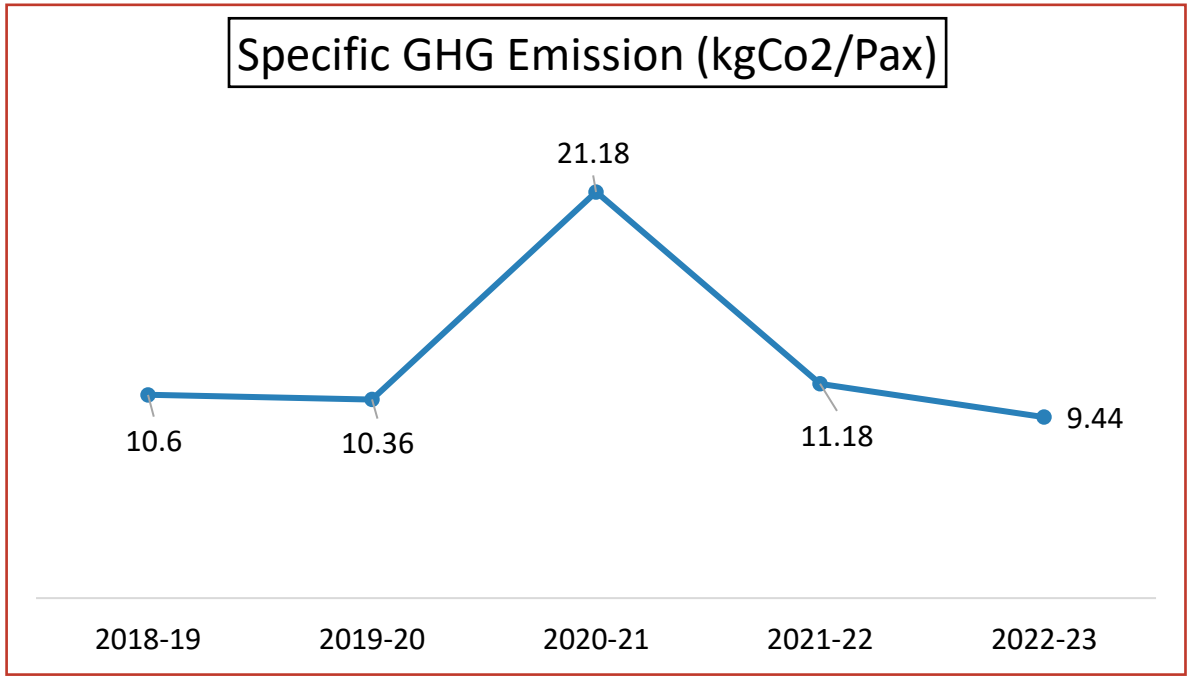
Proposed Completion Date: June'25

Group has planned to **GENERATE & UTILISE 100% GREEN power** for all its airport across India

# GHG Emissions

| Sources of Green House Gas Emission | | |
|---|---|---|
| Type | Activities | Remarks |
| Scope-1 | Fossil fuel, Fire Extinguishers, Refrigerant | Directly under control |
| Scope-2 | Electricity | Directly under control |
| Scope-3 | Stakeholder electricity, stakeholder fuel, LTO-Arrival/departure, passenger/staff/business travel, Offsite emissions | 3rd party dependent – Can only suggest and influence |




**Specific GHG is on decreasing trend**. Achieved **11% reduction** as compared to pre-covid level

# Measures taken to reduce GHG emission

| | |
|---|---|
| Green Power | **100% green power**–estimated **Scope 2 emission reduction by 85k tCo2**<br><br>**Self generate 100% renewable power** for all Adani Airports by 2025 |
| Transition to Lower GWP refrigerant | All equipment with high GWP refrigerant being replaced with low GWP refrigerant – **Scope-1 emission reduction by >40%** |
| EV Vehicles | Conversion of conventional fuels vehicles to EVs – in phase-wise manner<br>In FY2022-23 → **45 vehicles replaced(Amt-8Cr)**<br>In FY2023-24 → **40 vehicles planned** |
| Non-CO2 based fire extinguisher | All CO2 based fire extinguisher have been converted to non-CO2 based fire extinguishers |
| EV Charging Station | >7 EV charging stations installed across airport to encourage & facilitate stakeholders in moving towards EV |

# Journey towards Neutrality

| | |
|---|---|
| 2010-11 | IMS Policy & Environment Management System ( ISO 14001) |
| 2011-12 | Green House Gas Policy & ACA level 1- Mapping achieved, Implemented Carbon Accounting & management System (CAMS); ISO 14064 certification |
| 2012-13 | ACA level 2 – Reduction achieved; Preparation of carbon road map & targets – to reduce carbon footprint by 25%<br>**1st Airport in India to publish Sustainability Reporting**. |
| 2014-15 | Started Roof Top solar power plant installations (Installed 1.06 MW ), The Sustainability Report 2014, ACA level 3 – Optimization Achieved |
| 2015-16 | Energy Management System (ISO 50001), Renewal of ACA level 3 accreditation |
| 2016-17 | Achieved ACA level 3+ Neutrality. Roof top solar plant installations 2.5 MW, |
| 2017-18 | Total Roof top solar plant installations increased to 3.2 MW. |
| 2018-20 | Total Roof top solar plant installations increased to 4.6 MW |
| 2021-22 | **Road Map of Net Zero carbon emission- 2029**. Installed **hybrid vertical axis wind & solar mill** of capacity 10 Kwh. Installed Solar-4.66 MW |
| 2022-23 | **ACA-ACI 4+ Achieved**. MIAL running on 100% green power |

# Indoor Air Quality

MIAL strives to maintain healthy indoor air Quality.

- **3rd party air quality check** is done at regular intervals.
- Co2 sensors installed in return ducts of all AHUs & automatic fresh air intake when value crosses set parameters.
- Portable Co2 meters used to check Co2 level in all offices & crowdy areas multiple times in a day
- In FY2022-23, **UV lamps being installed in all AHUs** to upgrade the quality of indoor air.

| Sr. No. | Parameter | Measured Value | Threshold Value | Method |
|---|---|---|---|---|
| 1. | $SO_2$, µg/m³ | 14 | 80 µg/m³ | IS 5182 (Part 2) RA2017 |
| 2. | NOx, µg/m³ | 20 | 80 µg/m³ | IS 5182 (Part 6) RA2017 |
| 3. | $PM_{10}$, µg/m³ | 8.3 | 60 µg/m³ | IS 5182 (Part 23) RA2017 |
| 4. | $PM_{2.5}$, µg/m³ | 5.4 | 25 µg/m³ | IS 5182 (Part 24) 2019 |
| 5. | CO, ppm | < 0.10 | 9 ppm | APHA134-Air 3rd Edition |
| 6. | $CO_2$, ppm | 446 | Ambient + 500 ppm | APHA134-Air 3rd Edition |
| 7. | $O_2$, % | 19.5 | -- | APHA134-Air 3rd Edition |
| 8. | VOC, ppb | 56.4 | 500 µg/m³ | USEPA TO-17 |
| 9. | Formaldehyde, µg/m³ | < 0.2 | 100 µg/m³ | USEPA TO-17 |
| 10. | TMC | 41 | Organisms/100ml NA | APHA-2017(9215-B) |

**Sample Air Quality report – Inspection by 3rd party**

**Rich landscape of Greenery** is maintained inside terminal which further upgrades the air quality & gives a feel-good attitude to all stakeholder

# Waste Management

Mumbai Airport is **single use plastic free airport**

Proper **Waste Management SOP** in place – being strictly followed for managing wastes.

Inhouse **Organic Waste Convertor (OWC)** of 1.5 MT/day - to make organic compost

**Target- Zero Landfill waste**

by channelizing all waste for reuse & recycle.

**Replaced - conventional chemicals by Super Concentrated green chemical**

(**93% chemical volume reduced**)

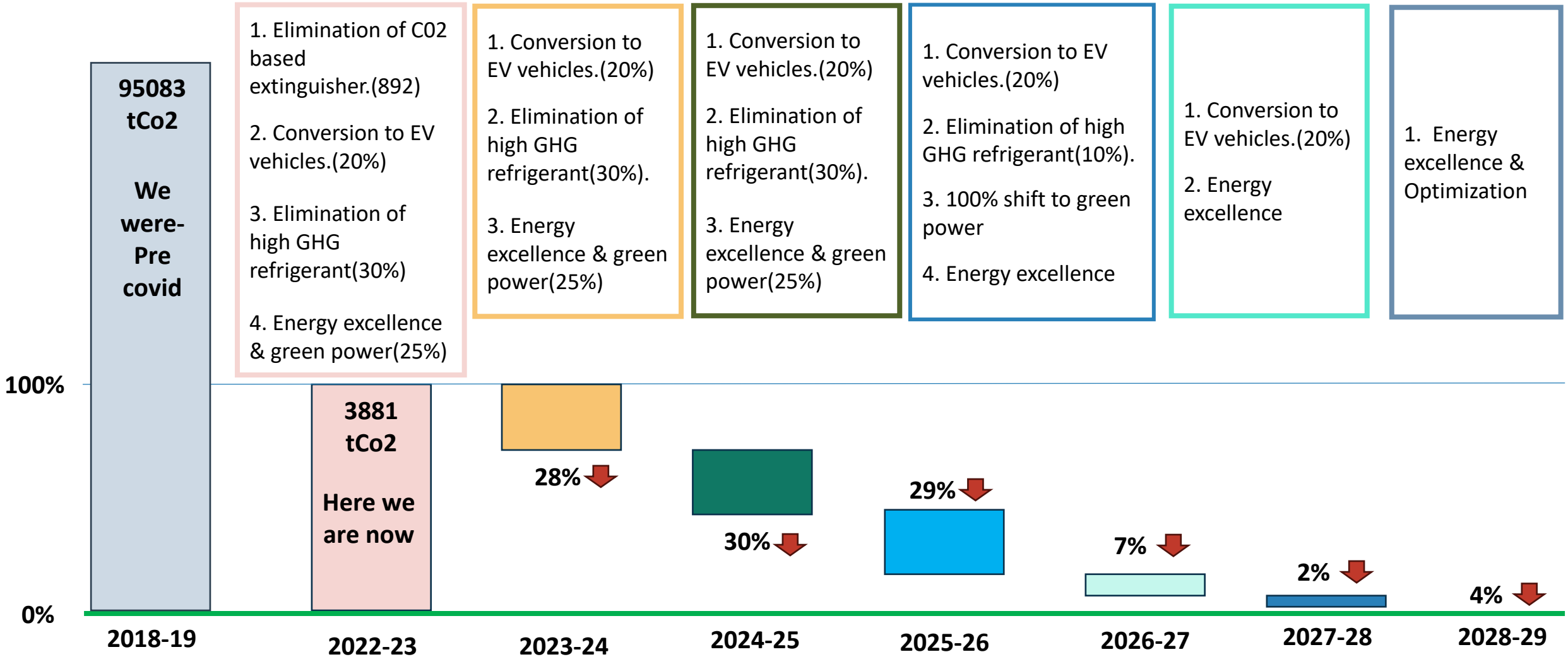
Reduced →plastic waste @78% p.a. & Cardboard @ 72% p.a.

**Commissioned dedicated Common Hazardous Waste Storage Facility- 2021** for Hazardous Waste Management for all CSMIA stakeholders.

**Sewage treatment plants (STPs)** a cumulative capacity of 15 MLD is installed for waste water treatment.

**Target – ZLD by 2025**

# NET ZERO Road Map

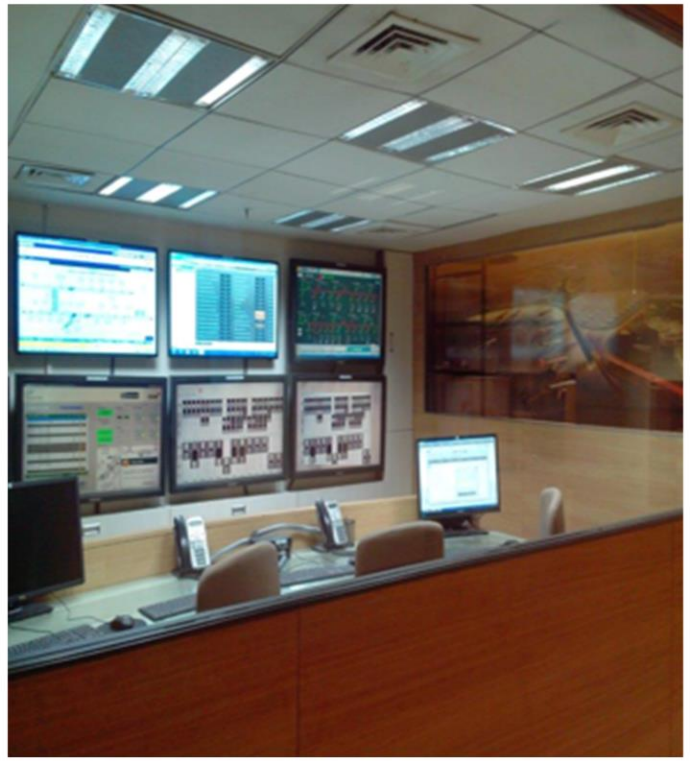


# Monitoring System – BMS & SCADA

**SCADA Generated - Daily Monitoring Report**

| DATE | BHS | PBB | HVAC | MAIN FIRE STATION | LIGHTING | POWER DISTRIBUTION | MACHINE ROOM PANEL | PUMP PANEL | RETAIL & TENANT PANELS | UPS | UTILITY AUX.CONSUMPTION | MLCP | STP | Chiller | TRITURATOR BUILDING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09-Aug-23 | 10282 | 3263 | 44672 | 813 | 32883 | 21002 | 3834 | 969 | 31063 | 17539 | 1148 | 20700 | 2450 | 109222 | 18 |
| 10-Aug-23 | 10269 | 3247 | 41314 | 796 | 34474 | 19542 | 3818 | 949 | 31083 | 17073 | 1179 | 21700 | 2240 | 112295 | 17 |
| Variance | -13 | -16 | -3358 | -17 | 1591 | -1461 | -17 | -20 | 20 | -466 | 32 | 1000 | -210 | 3073 | -1 |
| Variance % | -0.13% | -0.49% | -7.52% | -2.09% | 4.84% | -6.95% | -0.43% | -2.06% | 0.06% | -2.66% | 2.75% | 4.83% | -8.57% | 2.81% | -5.56% |

| Services | Cumulative Energy Consumption (KWH) Till Date (AUG-2023) | Consumption in % |
|---|---|---|
| BHS | 101891 | 3.22% |
| BRIDGE JUNCTION BOARD(PBB) | 33326 | 1.05% |
| HVAC-LS | 405217 | 12.80% |
| MAIN FIRE STATION | 7727 | 0.24% |
| LIGHTING DISTRIBUTION PANEL | 327468 | 10.34% |
| POWER DISTRIBUTION PANEL | 205213 | 6.48% |
| MACHINE ROOM PANELS(VHT) | 38896 | 1.23% |
| PUMP PANELS | 9662 | 0.31% |
| RETAIL & TENANT PANELS | 310809 | 9.82% |
| UPS PANELS | 175192 | 5.53% |
| MLCP-HT PANEL | 211600 | 6.68% |
| STP | 22480 | 0.71% |
| TRITUATOR BUILDING | 186 | 0.01% |
| UTILITY AUX.CONSUMPTION | 11588 | 0.37% |
| HVAC-HS(CHILLER & CHILLER AUX. PANELS) | 1054603 | 33.31% |
| CCR1-HT PANEL (Feeder from T2) | 200 | 0.01% |
| High Mast Light (Feeder from Utility) | 1698 | 0.05% |
| GPU + PCA | 241947 | 7.64% |
| GSD (Supply from utility) | 6490 | 0.20% |



- ✓ **SCADA & BMS for 24*7 real time** monitoring, Operation and Control.
- ✓ Daily section wise Consumption reports received through SCADA. Concerned person to justify variance.
- ✓ **Regular review meetings, being chaired by HOD**, on consumption and progress tracking.
- ✓ **Energy a key topic of MRM** being conducted by top management – Chief Airport Officer
- ✓ Targets given to each section → mapped with KRA.

# EnMS & IGBC Certification

IGBC GREEN EXISTING BUILDING
INDIAN GREEN BUILDING COUNCIL
Mumbai International Airport Limited (T-2)
PLATINUM
2021 - 2024

IGBC **Platinum** Certified


DNV
MANAGEMENT SYSTEM CERTIFICATE
Mumbai International Airport Limited

**EnMS 50001:2018** certified company

How CII helps in our Journey of Energy & Sustainability Management….

- **Providing a National platform** to showcase efforts & getting recognized for the same indeed acts as huge motivation to act & perform better.
- **Opportunity to see other's performance** & where we stand → Forum helps in getting additional ideas from others.
- **Multiple companies showcase their energy efficient products** → Exposure to new available products in the market.

# Print & Social Media Coverage


ENVIRONMENT

The Logical Indian Crew

## Mumbai Airport Switches To 100% Green Energy, Aims 'Net Zero Carbon Emission' By 2029

**Writer:** Apoorva Chakrayat

Maharashtra, 18 Oct 2022 3:15 PM | Updated 18 Oct 2022 3:15 PM

**Editor :** Shiva Chaudhary | **Creatives :** Shiva Chaudhary

The Chhatrapati Shivaji Maharaj International Airport in Mumbai has been the first in India to launch hybrid technology that solely runs on green energy since April 2022. It has wholly switched to green sources such as hydro and wind energy.

THE TIMES OF INDIA

## Mumbai airport green initiatives feted by ACI

TNN | Dec 22, 2022, 06.49 PM IST

MUMBAI: The Mumbai airport has joined the group of 31 airports in the world that have achieved Airport Council International (ACI)'s "Level 4+" of Airport Carbon Accreditation (ACA) program, said Mumbai International Airport Ltd (MIAL) on Thursday.

Reaching Level 4+ 'Transition' means that the airport has aligned its carbon dioxide emissions management with global climate goals and compensated for the remaining residual emissions with high quality carbon credits, said MIAL.

"Only 2 airports in the whole Asia-Pacific region have achieved this," said MIAL adding Mumbai is the third airport in the said region to receive this certification.

MIAL said the Mumbai airport has been reducing its carbon emissions under its Environment Social and Governance (ESG) policy commitments.

The airport has prepared a roadmap to achieve net zero carbon emission operations by 2029. "The airport has prepared comprehensive plan and invested on emission and energy consumption reduction projects. Cross function climate c
reduction objectiv
Among the projec
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wind turbine and
Then other steps s
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## PASSENGER TRAFFIC GROWS 291%

## DOMESTIC 87% AT MUMBAI AIRPORT

handled 44 million
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ngers, between April
2023. While
ssenger traffic
wth of 291% in
022-23 over financial
mestic stood at 87%

C RECOVERY

56% of

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OVER

51%

**TOP DESTINATIONS**

International
Dubai, Abu Dhabi and London

Domestic
Delhi, Bengaluru, and Goa

**HIGHEST SINGLE-DAY NUMBERS**

FLIGHT VOLUME
Feb 11, 2023 | 974 arrivals and departures

PASSENGER VOLUME
Dec 10, 2022 | 1.5 lakh passengers*

*Highest post-pandemic and overall third-highest single-day passenger movement recorded for Mumbai airport

"The calendar year 2022 had begun with the Covid third wave and though its impact was not as severe as the earlier ones, it did keep demand tepid up to mid-2022. Thereafter the festive season and year-end travel saw passenger traffic go up – An official

## Climate Change Strategy: Mumbai Airport Lauded For Managing Its Carbon Footprint

With 'Measure, Manage, Reduce and Communicate' as its core objectives, it exemplifies CSMIA's dedication and expertise in effectively managing its operations to contribute to a better tomorrow.

BY MUMBAI LIVE TEAM • 8 MONTHS AGO • ENVIRONMENT • MUMBAI

With a commitment towards achieving operational Net Zero Carbon Emissi
are delighted to partner with Uber for the launch of its flagship EV product
#UberGreen, with Chhatrapati Shivaji Maharaj International Airport (CSMIA)
the first location in Mumbai to offer this service.

Accelerating sustainable mobility, Uber will now offer on-demand Electric V
(EV) rides to travellers requesting a ride to and from #MumbaiAirport, thus
providing our passengers with an eco-friendly option.

#MumbaiAirport #CSMIA #UberIndia #Green #Service #Experience #Pass
#Travel #Explore #Airport Uber

## Mumbai International airport achieves highest rating in carbon sustainability

By Yogesh Naik

Dec 23, 2022 12:57 AM IST

The certification lauds CSMIA's efforts in building a climate change strategy which provides a comprehensive framework for managing its carbon footprint, as per a statement by the airport.

CSMIA has prepared a roadmap to achieve Green House Gas reduction (Carbon Management) CSMIA has prepared a roadmap to achieve operations Net Zero Carbon Emission by 2029. (PTI)


Mumbai International Airport Spreads the Message of Green Living With Travellers on World Environment Day

# Awards & Accolades

CII Excellent Energy Efficient Unit-2019




# Thank You

**Email:** Sourav.Chakraborty@adani.com
**Contact:** 9830163817



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