

# Decarbonization Plan of Delhi Airport

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# Decarbonization Actions by Delhi Airport



First Level 4+ Airport in Asia Pacific

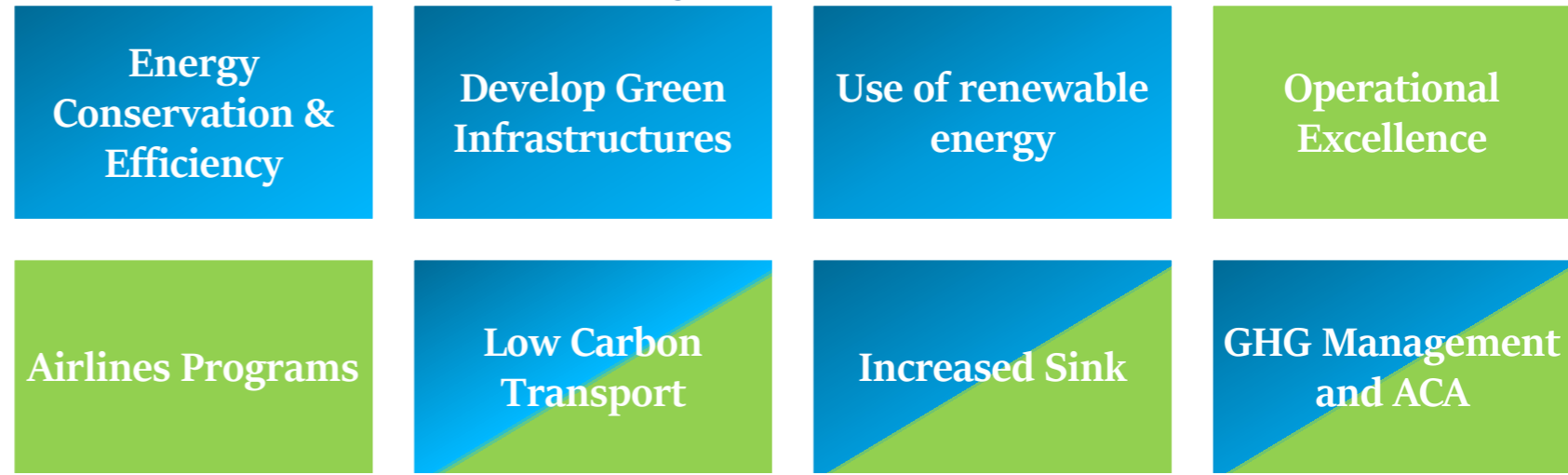
Only the Second Airport globally to achieve this Level



Level 4+ achievement demonstrates DIAL's emission reduction target in line the **IPCC 1.5°C pathways.**

## Key Focus Area

Net Zero Airport by 2030

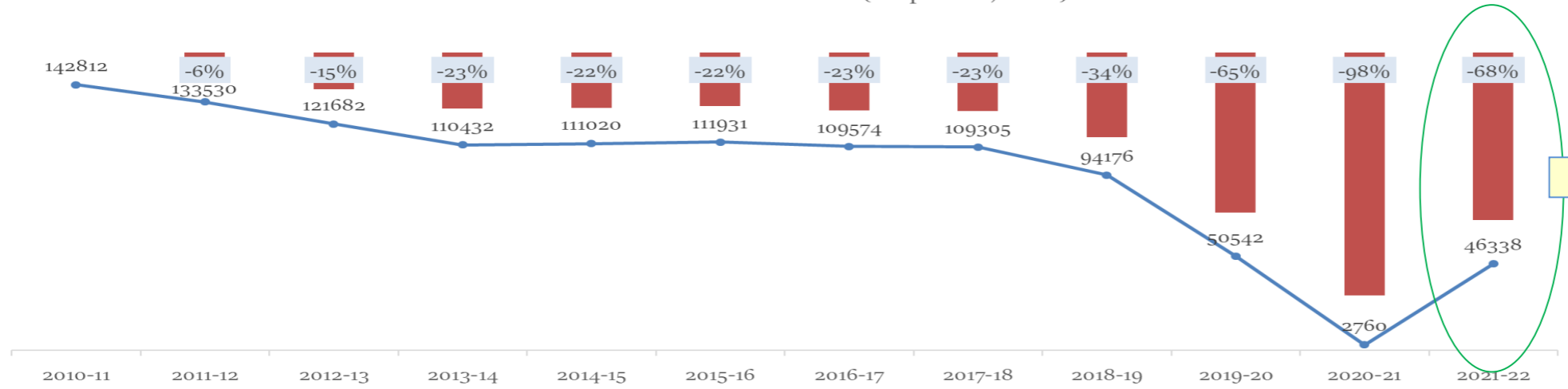


Scope 1 & 2      Scope 3

# Trends & Projection

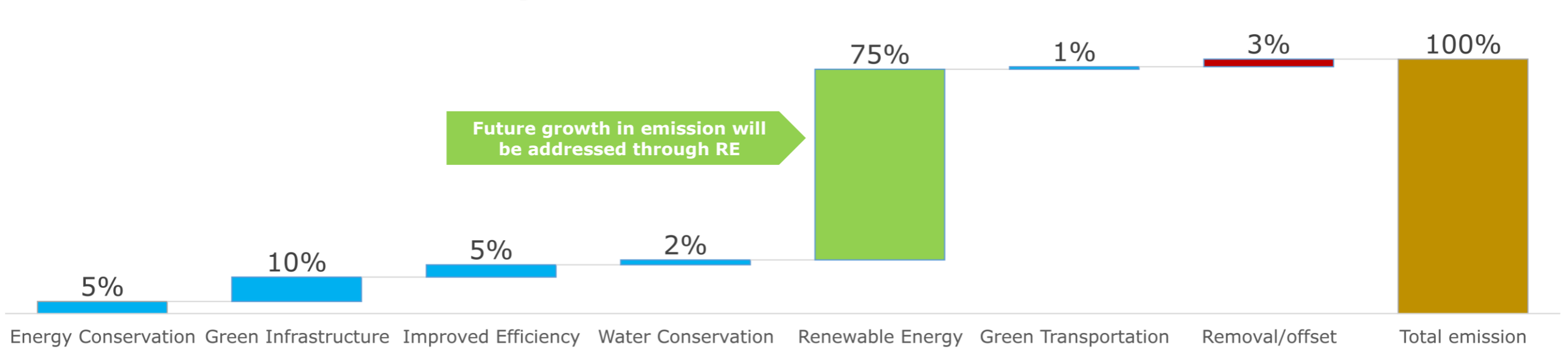


GHG Emission Trend of DIAL (Scope 1 & 2, tCO<sub>2</sub>)



Use of Hydro Energy will bring down this emission to ZERO

Anticipated % Emission Reduction from Various Initiatives





# Key Emission Reduction Projects



## Green Energy (Onsite & Offsite)

7.84 MW Solar PV (onsite) & PPA with Hydro Plant (offsite)



## TaxiBot Operation

Approx. 430 t of ATF and ~1350 tCO<sub>2</sub> reduced



## Sustainable Aviation Fuel

MoU signed for SAF Study



## Eastern Cross Taxiway

~55000 tCO<sub>2</sub> will be reduced annually



## Terminal 1 Redevelopment

Targeting for LEED Platinum

Description	Area in m <sup>2</sup>
LEED Area	214325
Roof Area	102007
Landscape area	7429
Paver area	11259
Road & Other hardscaped areas	93629

# DIAL's Road Map Towards Net Zero & Status



S. No	Initiatives	Tasks	Scope	Action Items
1	Target & Objective setting	Targets to reduce energy emission	All	<ul style="list-style-type: none"> <li>Set policy commitment to reduce absolute CO2 emission from emission sources under DIAL's control</li> <li>Set long term emission reduction goal in line with IPCC 1.5 Degree scenario</li> </ul>
2	Airport wide GHG mitigation drive	Create an Airport wide Carbon Management Working Group	All	<ul style="list-style-type: none"> <li>Top management forum</li> <li>Carbon Management Task force</li> <li>Training &amp; knowledge sharing</li> <li>Within airport benchmarking for stakeholders &amp; recognition</li> </ul>
3	Carbon Management Plan	<b>Energy Conservation &amp; Efficiency</b>	1, 2	Regular energy audits & review by internal team
			1, 2	External audit after every 5 years
			1, 2	Adopt Energy Management System - ISO 50001 and 3rd Party certification
		Improve energy efficiency and conservation	1, 2	Adopt energy efficient operational practices
			1, 2	Adopt life cycle cost approach in the business analysis
<b>Develop Green Infrastructures-</b>	<ul style="list-style-type: none"> <li>Adopt &amp; Review ECBC/Green Building norms</li> </ul>	1, 2	Appropriate Design & maintenance of airport with selection of Electrical and Mechanical units such as DG sets, HVAC system & Lightings in Terminals.	
			Use of Energy Efficient MEPs and Aviation System	

 Completed  Ongoing

# DIAL's Road Map Towards Net Zero & Status



S. No	Initiatives	Tasks	Scope	Action Items
		<ul style="list-style-type: none"> <li>Adopt &amp; Review ECBC/Green Building norms</li> </ul>	2	<ul style="list-style-type: none"> <li>Optimize natural light at terminals to the maximum extent in Terminals</li> </ul>
3	Carbon Management Plan	<ul style="list-style-type: none"> <li>Focus on water management</li> </ul>	2	<ul style="list-style-type: none"> <li>Design Airport infra to Implement Rainwater Harvesting &amp; Rain Water Storage facility</li> <li>Design Airport infra to recycle/reuse treated water from STP for landscaping, toilets &amp; flushing.</li> </ul>
		<p><b>Renewable Energy:</b> Enhance Renewable Energy development &amp; utilization</p>	2	<ul style="list-style-type: none"> <li>Maintain on-site solar plant</li> <li>Explore the use of offsite renewable energy to meet remaining demand</li> </ul>
4	Stakeholder Partnership Plan	<p><b>Operational Excellence:</b> Reduce emissions from aircraft at air/ground</p>	3	<ul style="list-style-type: none"> <li>Reducing holding time, delays etc. by working with relevant stakeholders.</li> </ul>
		Reduce Ground emission	3	<ul style="list-style-type: none"> <li>Promoting emission reduction initiatives in collaboration with ATC</li> </ul>

 Completed  Ongoing



# DIAL's Road Map Towards Net Zero & Status



S. No	Initiatives	Tasks	Scope	Action Items
4	Stakeholder Partnership Plan	<b>Airlines Programs:</b> Promote green initiatives for emission reduction	3	<ul style="list-style-type: none"> <li>Promote the use of BMEs by aircrafts in order to reduce APU emissions</li> <li>Promote Single engine taxi in and out</li> <li>Promote use of TaxiBots</li> </ul>
		<b>Low Carbon Transport:</b> Promote energy efficient and alternate fuel vehicles	1,3	<ul style="list-style-type: none"> <li>Reduce emissions from airside vehicles by working with partners through adopting electric and other clean fuel vehicles</li> <li>Develop EV charging infrastructure to support the operational needs of airside vehicles and encourage the uptake of EVs</li> </ul>
5	Increased Sink	<b>Develop Sink:</b> Natural emission absorption	All	<ul style="list-style-type: none"> <li>Develop carbon sinks by onsite tree plantations</li> </ul>
6	Emission Management & Offsetting	<b>Airport Carbon Accreditation:</b> Quantify contribution from airport sources and adopt residual carbon offsets from Markets	All	<ul style="list-style-type: none"> <li>Develop an annual inventory of airport emission</li> <li>Airport wide GHG Accounting framework</li> <li>Adopt Airports Council International – Airport Carbon Accreditation (ACA) Program (Highest Level, Level 4+)</li> <li>Purchase carbon credits for offsetting residual emission</li> <li>(Scope 1, 2 &amp; limited scope 3 as per ACA program)</li> </ul>

Completed
  Ongoing



**Thank you**