



Control the Future, Invent It



Decarbonising India with Magnet-Free DC/ AC Hybrid Technology

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Chennai, India



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The Strategic Advantage:
No Rare Earths

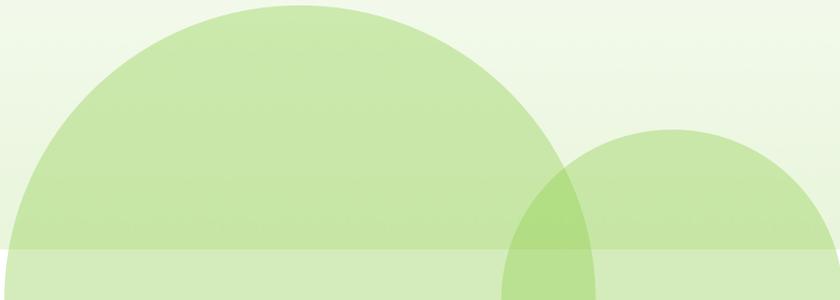
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Conclusion: The Magnet-
Free Future



01

The Offering





DC/AC Hybrid Technology

01

Ultra- Efficient ACIM & FOC Solutions for India's Cooling, Pumping, Industrial and Mobility Needs.

02

Key Innovation: No Rare Earth Magnets | IE4/IE5 Efficiency | Dual Power (PV DC & Grid AC).

02

The Core Technology Platform



|| The Motor



Magnet-free AC Induction Motors (ACIM)

Ultra- efficient motors with IE4/IE5 efficiency levels almost matching PMSM.

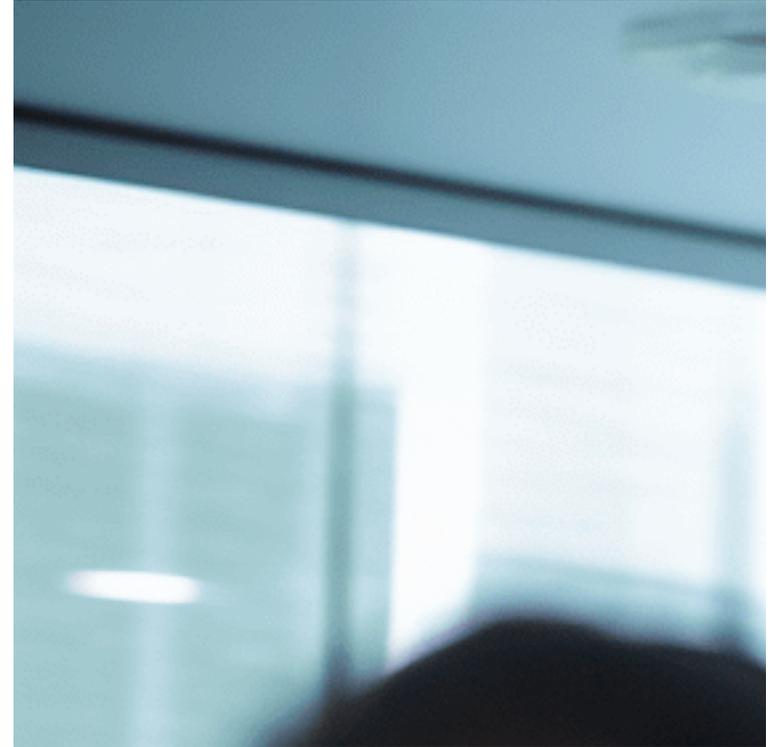


|| The Control



Advanced Field Oriented Control (FOC)

Sensor/sensorless.



|| Power Versatility



Native DC for PV/Battery

Rectified AC for Grid
(Near Unity Power
Factor, IEC Harmonic
Compliant).

|| Performance



Soft start and wide input voltage handling

Universal compatibility.



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03

Sustainable Cooling (Domestic to Industrial)



|| Products

Room Air Conditioners, Refrigerators, Freezers, and Walk-in Cold Rooms

Mission Innovation Sweden has estimated that India would save 28.5 Million Tons of CO₂ per year, if 10% of the air conditioners market adopt to Basil Technology

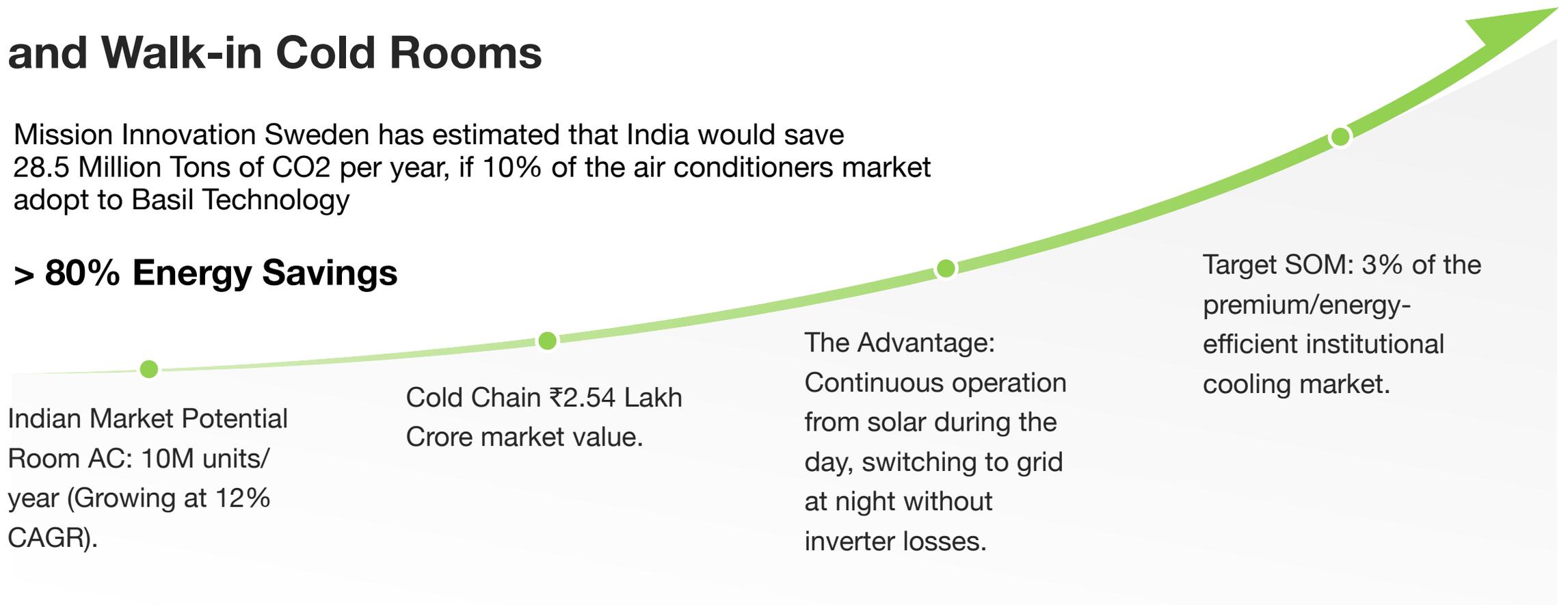
> 80% Energy Savings

Indian Market Potential
Room AC: 10M units/
year (Growing at 12%
CAGR).

Cold Chain ₹2.54 Lakh
Crore market value.

The Advantage:
Continuous operation
from solar during the
day, switching to grid
at night without
inverter losses.

Target SOM: 3% of the
premium/energy-
efficient institutional
cooling market.





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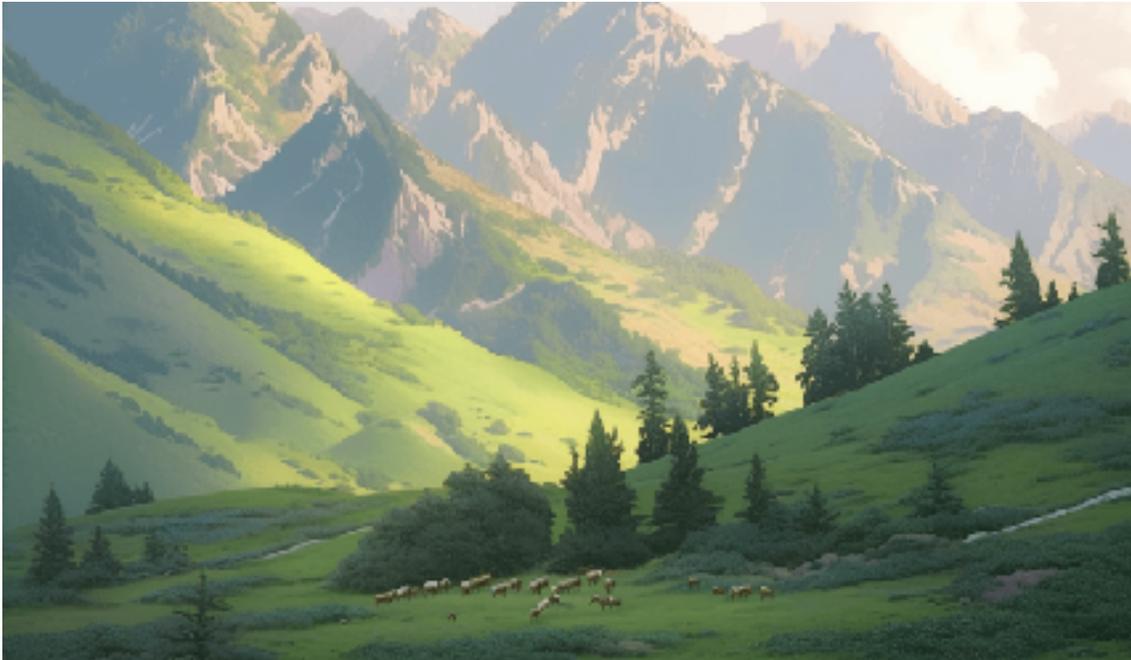
Water Pumping & Purification (Surface Solutions)



Products

High-Pressure Surface Pumps, Micro-irrigation Boosters, RO Purification, and Urban Pressure Booster systems

>60% Energy Savings



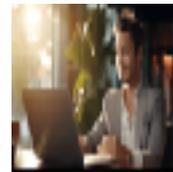
Market Dynamics: Urban/Suburban: Massive demand for pressure boosters in high-rise developments.



Micro- Irrigation: ₹5,000 Crore potential driven by "Per Drop More Crop" initiative.



Technology: Specialised surface pumps that eliminate the need for expensive submersibles where water sources are accessible.



Target SOM: 8% of the high-pressure solar-pump market.

05

E-Mobility (EV & Drones)



|| Products

Magnet-free propulsion for EV 2W/3W and heavy-lift Drones

01

Technical Edge: Strictly ACIM with FOC.

02

No reliance on Chinese-sourced magnets.

03

Higher thermal stability and durability for harsh Indian conditions.

05

Target SOM: 2% as a specialised drivetrain OEM.

04

Market Potential: EV market reaching ₹1.75 Lakh Crore by 2030; Drone market hitting ₹12,000 Crore by 2026.



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Heavy-Duty Industrial Portable Tools



|| Products



High-frequency Grinders, Drills, and Breakers

01

Target Segment: Professional Industrial use; direct replacement for energy- hungry Pneumatic Tools.

02

Key Features: No batteries (corded DC/AC), high- torque, soft start, and extreme efficiency.

03

Market Potential: ₹8,600 Crore market.

04

Target SOM: 5% of the industrial tool replacement market (focusing on manufacturing and ship- building).

85% Energy savings compared to Pneumatics Tools



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PURE (Productive Use of Renewable Energy)



|| Products



**Solar-run Power
Looms, Machine
Tools, Air
Compressors. Oil
Expellers and
Wheat/Rice Flour
Mills**

Livelihood Impact:
Enabling a "Day-
Shift" economy in
remote areas
directly from PV
panels.

Market Potential:
₹4.2 Lakh Crore
(DRE livelihood
potential in India).

Strategy: Targeting
10,000 rural micro-
enterprises to
enhance
community income
via zero- fuel- cost
machinery.



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Technical Compliance & Grid Harmony



|| Key Features

Minimises grid stress



IEC Norms: Full compliance with harmonics standards, protecting the utility infrastructure.

Wide Voltage Range: Operates seamlessly during the heavy voltage fluctuations common in rural Indian grids.

Near Unity Power Factor (PF) 0.99 +
Rebate in tariff for commercial/industrial consumers



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Indian Market Opportunity Snapshot



Indian Market



Segment	Est. Annual Growth	Market Size (2026-2030)
Cooling	11.5%	₹1.5 Lakh Cr+
Surface Pumps	9.0%	₹40,000 Cr+
EV/Drones	25%	₹1.75 Lakh Cr
Industrial Tools	8.5%	₹10,000 Cr
PURE (DRE)	20%	₹4.2 Lakh Cr+



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SOM (Serviceable Obtainable Market) Goals



|| Phase 1 (Years 1-2)



Establish presence in Sustainable Cooling and PURE/DRE
rural clusters

CaaS (Cooling as a Service) & EaaS (Electricity as a Service)
model for B2B market

|| Phase 2 (Years 3-5)



Scaled OEM supply for EV and high-pressure industrial pumping

Goal: To be the leading Indian provider of magnet-free, DC-native industrial motors.



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The Strategic Advantage: No Rare Earths



|| Security



Complete independence from Rare
Earth magnet supply chain volatility



|| Sustainability



ACIM with Local Materials are 100% recyclable and ethically sourced

|| Cost



Long-term price stability
compared to Neodymium-
based motors



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Conclusion: The Magnet-Free Future



Summary

01



Our FOC-controlled ACIM technology provides the efficiency of permanent magnet motors without the supply chain risk

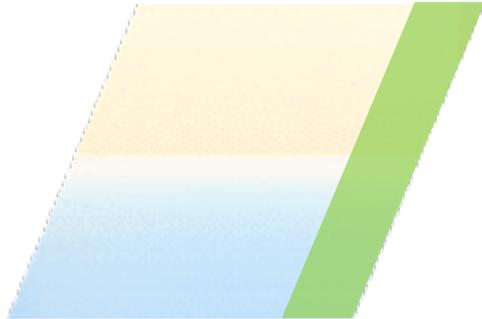
|| Universal Standard



ACIM with FOC is our standard for all verticals

Automotive type Quality Level (ISO 9001/IATF16949) Legacy

|| Closing



01

Empowering India's "Make in India" and "Net Zero" goals through high-efficiency, magnet-free indigenous engineering. Platinum LEED Certification enabled by our solutions



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Thanks

Ram Ramarathnam

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