



Our Success Stories: Making Sustainability a Business Case



Mfg. Exc. | Technology | Engineering | Sustainability 360+ Clients Across Globe, Fastest Growing in India



Our **Success** Stories – Making Sustainability a **Business Case**

We present this case study of one of our undertaken projects for a major FMCG Brand across 10+ countries & 20+ Sites across most of the developing countries in the APAC & MENA Region.

The Big 4 pride themselves in creating Board room strategies, however a high & mighty Boardroom strategy & lack of executional proficiency ultimately led to a failure in on-ground implementation.

This is where our decade worth of experience in on-ground implementation helped in translating our client's Board-room Strategies into an on-ground reality.



The Challenge: Translate FMCG boardroom Decarbonization strategies into impactful action in developing markets, driving tangible sustainability transformation.



The Impact

For 12+ years, we have been strategizing, implementing & showing results.



GHG/ CO2e Reduction

1125 Tones / Year per Site

GHG %

15% Avg. / Year per Project

Energy Reduction

22,28,722 kWh/ Year

Monetary

With Savings of \$241 per
Tons of CO2e

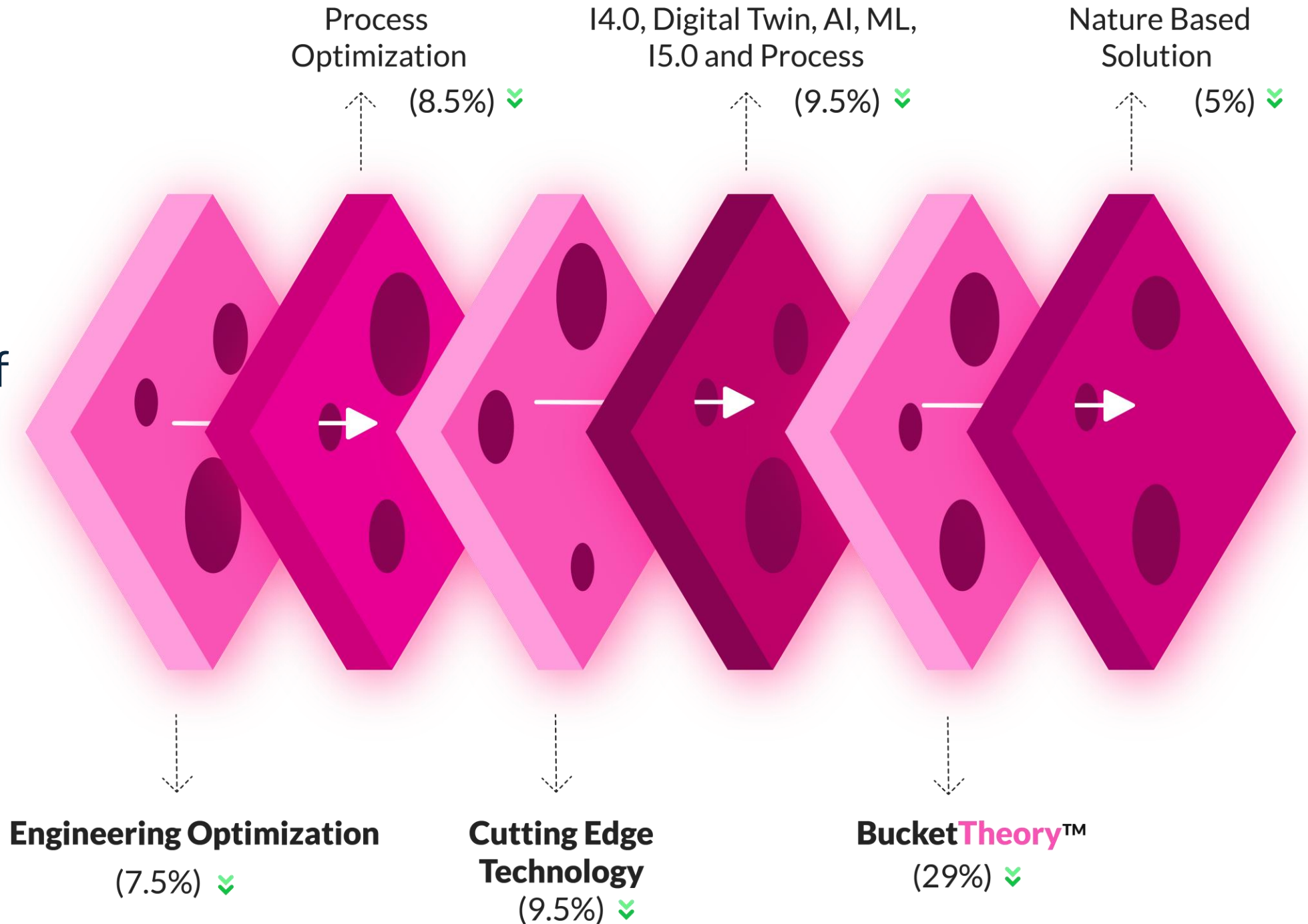
We understand Monetization.



Our Recipe of **Execuational** Excellence

ClimaCheese™

We Deliver Reduction At Each Step.



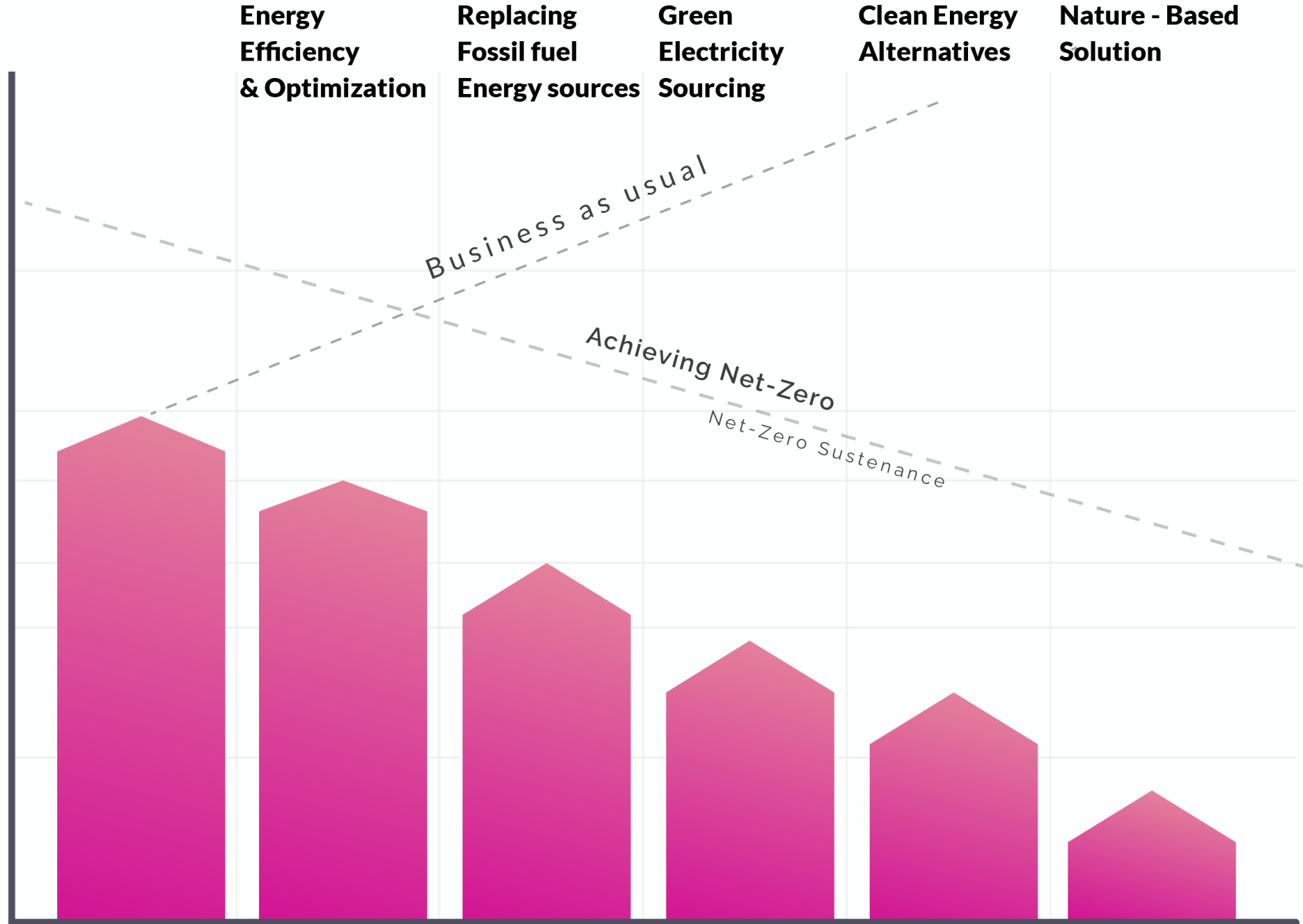


An End-to-End Organisational
Decarbonisation Strategy

Tailored **Roadmap**

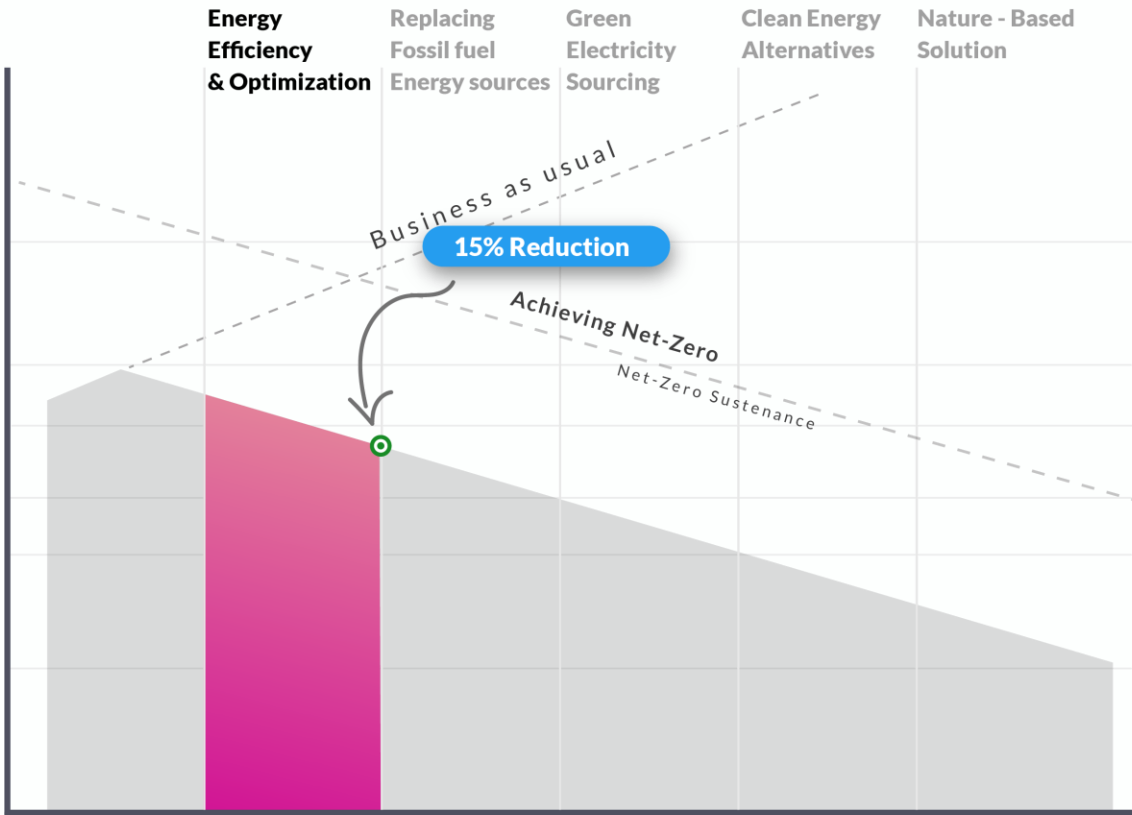
To meet
Decarbonization
Targets

BROG™





Advanced Energy Audit & Modelling



Energy Efficiency Measures	Annual Energy Savings			Estimated Investment (USD)	Simple Payback Period (months)
	Electricity (kWh)	Emission reduction (tCO ₂ /Yr)	USD		

Improvement in the Water Side Systems

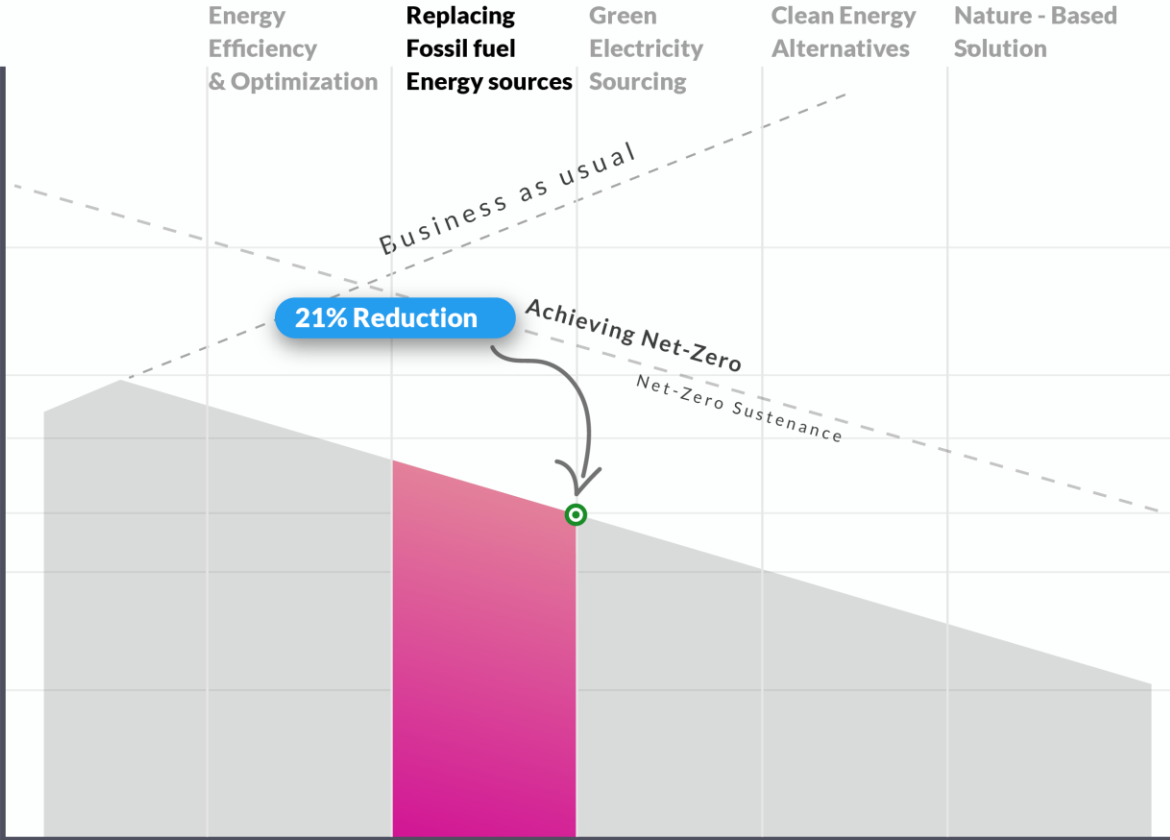
Technology Changeover from Air Cooled to Water Cooled Chillers	1134420	527.5	14,698	42,108	34-35
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Improvement in Air Side Systems

Technology Upgradation from Conventional Fans to BLDC Fans in the Air Handling Units	190442	88.5	2,463	8,842	43-44
Installation of Drives on the Air Handling Units (2 Nos)	31536	14.7	408	469	13-14
Technology Upgradation from Existing Standard Blower to IE4/IE5 Blower (Dry Air and Wet Air Fan of one Dehumidifier)	14016	6.5	181	479	31-32



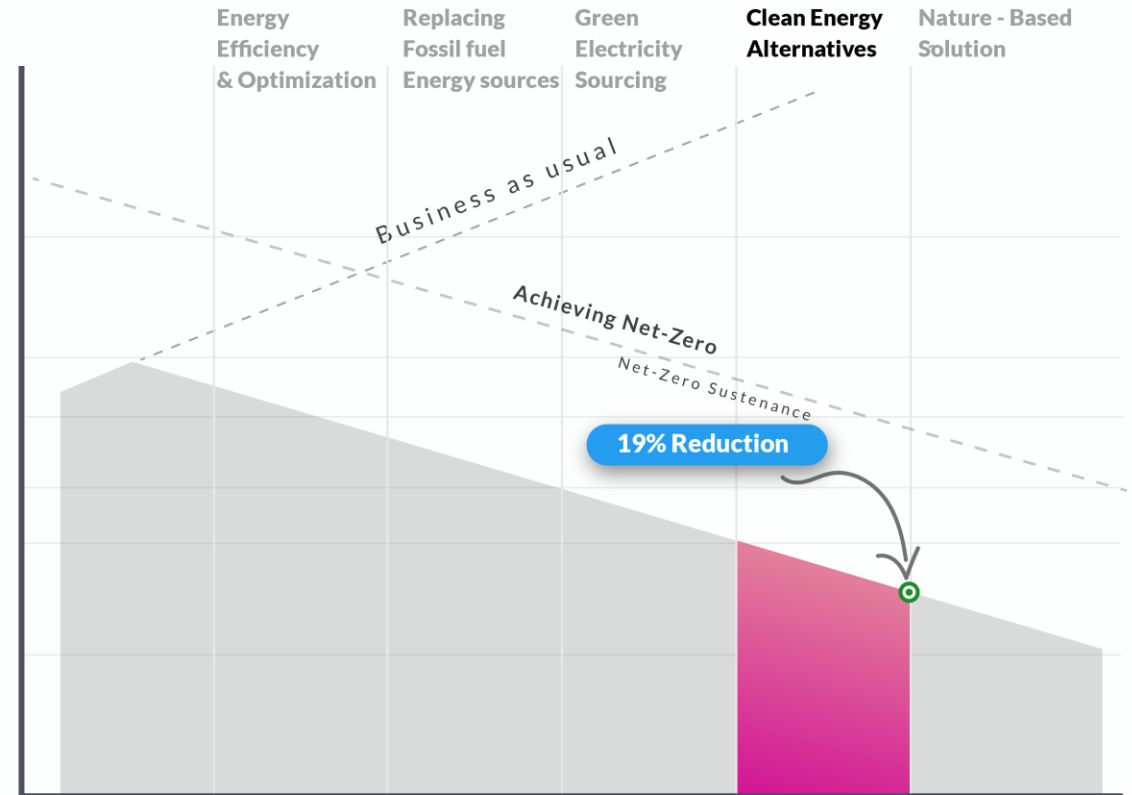
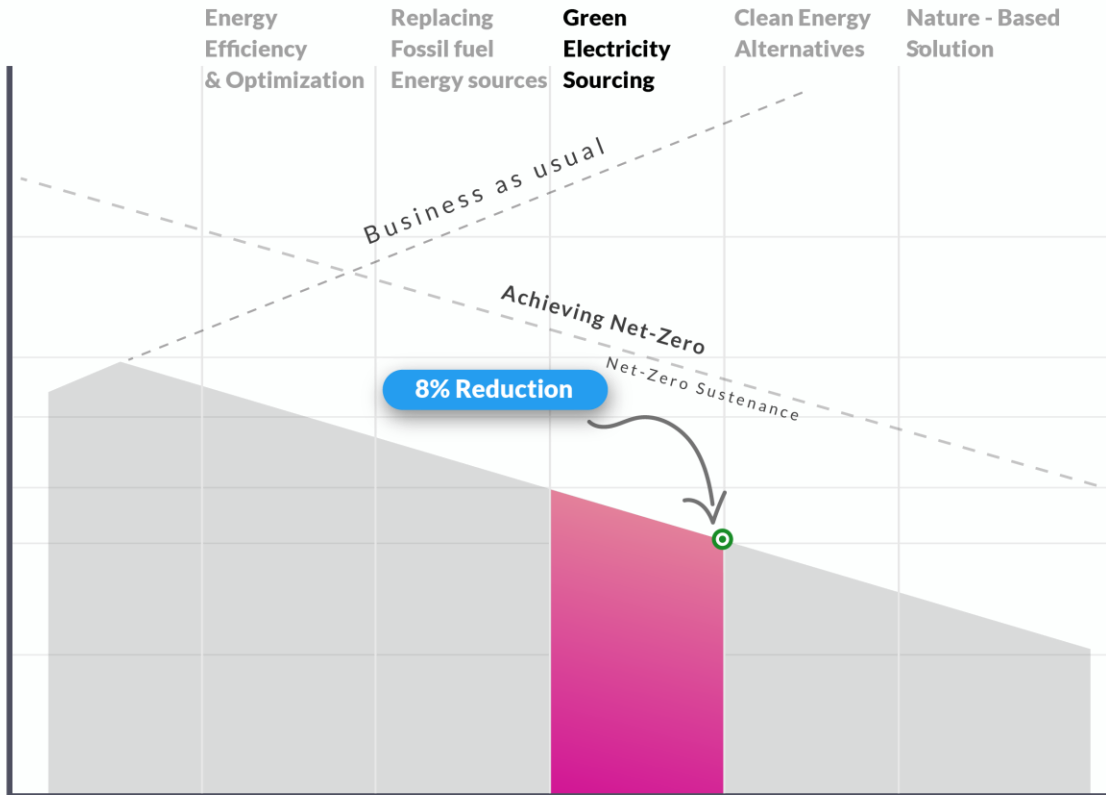
Thermal Substitution

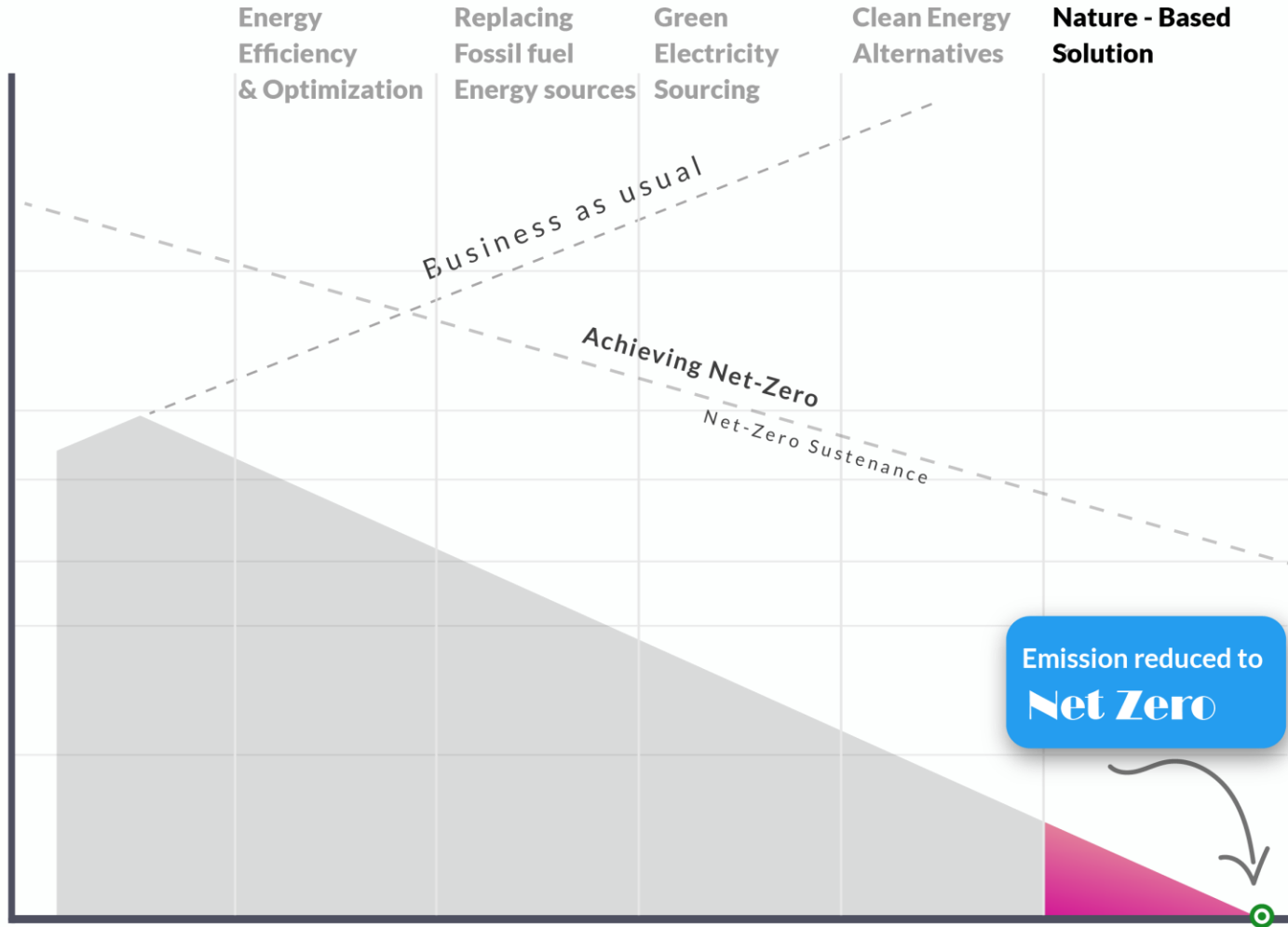


Thermal Substitution Initiatives	Monetary Benefits (USD / Year)	Estimated Investments (in USD)	Simple Payback Period (months)	Emission reduction (tCO2/Yr)
Installation of Air Preheater on the Boiler				
Improve boiler efficiency by preheating combustion air with flue gas via an air preheater positioned after the economizer.	7,000	8,500	14	24.4
Installation of Waste Heat Recovery System				
Implement plant-wide waste heat recovery: preheat boiler feed with flue gas and utilize compressor heat via control units.	17,000	28,500	21	57.45
Usage of Battery-operated Forklifts				
Replacement of Diesel operated Forklifts with Electric Power / Battery operated Forklifts	10,000	116,216	36	26



Initiatives Taken	Monetary Benefits (in USD/ year)	Estimated Investments (in USD)	Simple Payback Period (months)	Emission reduction (tCO2/Yr)
Signing of PPA for Green Electricity Sourcing				
Offsite Power Purchase Agreement signed in line with India's renewable energy policy (Executed by In-house highly accomplished Consultant)	Mark to market – (- 10%)	0	Across 10 years (Contract – basis)	2000 (80% of the total Factory)
Installation of Vapor Absorption Machine (VAM) - Steam Based				
Enhance CHP and capture excess steam (676 kg/hr) to power a 200 TR vapor absorption chiller for increased efficiency.	99,200	272,000	33	477





Initiatives taken	Monetary Benefits (USD / Year)	Estimated Investments (in USD)	Simple Payback Period (months)	Emission reduction (tCO2/Yr)
Carbon Sequestration Project with Bamboo Trees on 10 Acres	384,000	1,152,000	14	24.4
Soil Fertility Rejuvenation – yield Improvement through Pesticide reduction, & planned irrigation.	250,000	500,000	16	0.5

Knowledge & Strategy: The Power Trio

Process Optimization



Technological Implementation



Nature-Based Solution



**Have a Technical Query,
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