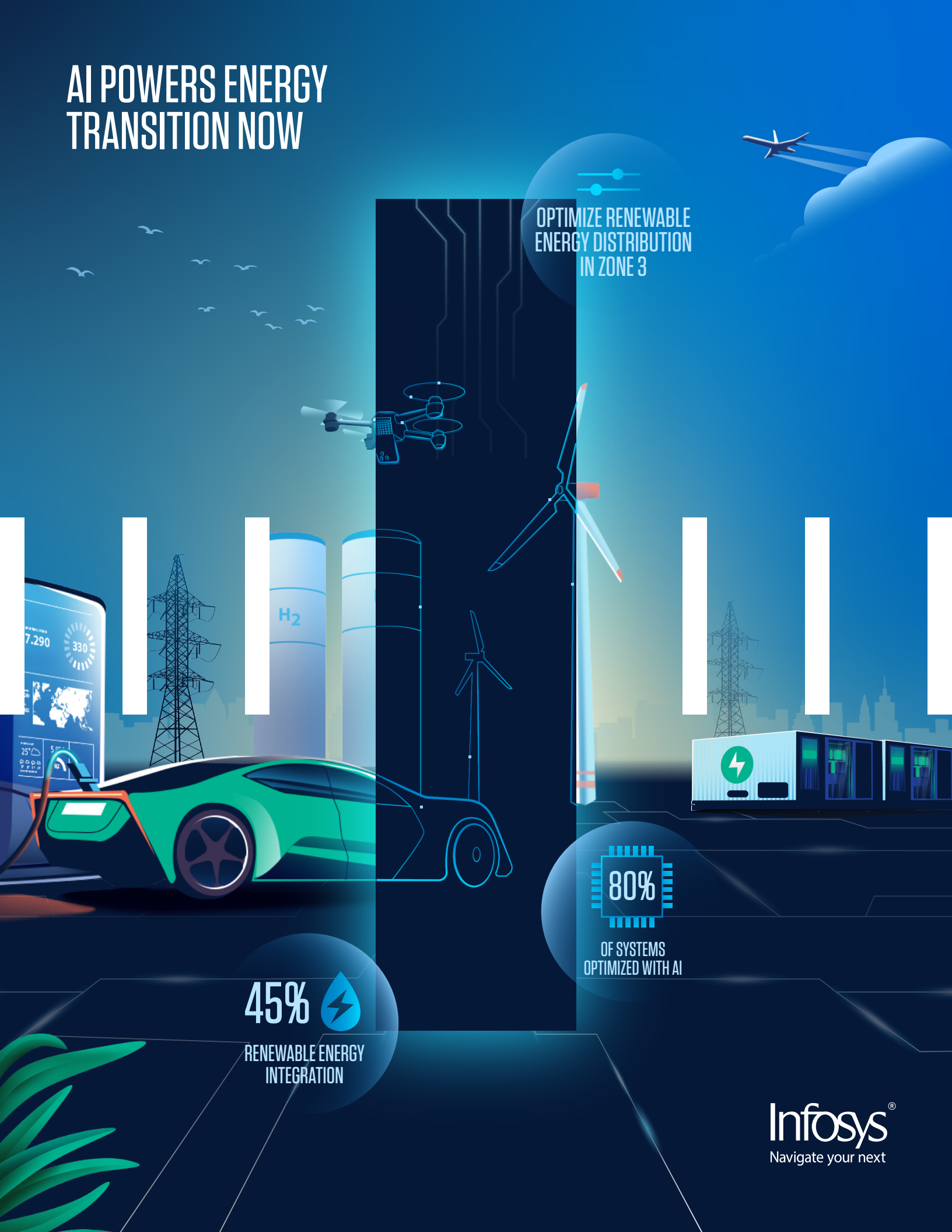
AI POWERS ENERGY TRANSITION NOW



Infosys®
Navigate your next

GUIDING THE WAY TO WHAT'S NEXT

Your Digital Energy Orchestrator

Infosys is committed to building a sustainable, inclusive future, both within our own operations and for the enterprises we serve. Carbon neutral since 2020, we bring this experience to our role as a Digital Energy Orchestrator, helping organizations navigate complex energy transitions with the power of AI, cloud, and digital.

Infosys Topaz

Infosys Topaz, our AI-first suite of services, solutions, and platforms, sits at the heart of this transformation. With 12,000+ AI assets and 150+ pre-trained models, Infosys Topaz helps enterprises create value faster, build smarter systems, and unlock efficiencies across energy ecosystems, safely and ethically.

Energy Transition Practice

Our dedicated Energy Transition practice empowers global enterprises to decarbonize operations, modernize grids, and embrace renewables. From low-carbon initiatives and smart mobility to circular economy solutions, we co-create with clients, partners and academia to turn net-zero goals into action.

AI POWERS THE KEY PILLARS OF ENERGY TRANSITION

AI is reshaping how energy is generated, moved, and consumed. At Infosys, we focus our solutions around six core areas, pillars that guide how we help enterprises advance their energy transition goals.

Next-Gen Grid

AI enhances grid orchestration

Sustainable Transportation

AI turns the wheels of green mobility

Carbon Management

AI reduces energy intensity

Renewables and Storage

AI makes renewables more reliable

Net Zero and Sustainability

AI paves the path to neutrality

Smart Energy Solutions

AI amplifies energy efficiency

AI ENHANCES GRID ORCHESTRATION

NEXT-GEN GRID

The next-generation grid, also known as a smart grid, is transforming the way electricity is produced, distributed, and consumed. With AI at the core, it brings smarter operations, builds flexibility into the grid, enhances reliability, and maintains stability.

From forecasting to fault response, here's how AI keeps the grid ahead of the curve

Advanced Load Forecasting

Predicts energy demand accurately and improves distribution planning.

Grid Management and Optimization

Balances supply, prevents faults, and regulates voltage in real time.

Renewable Energy Integration

Forecasts clean energy output, manages storage, and runs microgrids efficiently.

Grid Resilience and Security

Uses AI to detect threats early and support faster recovery.

Flexibility and Automated Decisions

Monitors the grid in real time and responds dynamically to change.

EV and Distributed Energy Management

Optimizes EV charging and enables decentralized energy exchange.

Virtual Power Plants and DERMS (Distributed Energy Resource Management Systems)

Coordinates and manages distributed energy resources at scale.

AI TURNS THE WHEELS OF GREEN MOBILITY

SUSTAINABLE TRANSPORTATION

AI is helping transform transportation into a cleaner, greener system. By making mobility smarter and more efficient, AI supports the shift to sustainable transport while reducing environmental impact.

From EVs to emissions, here's how AI is shaping the journey to sustainable transport

Electric Vehicle (EV) Management and Smart Charging

Optimizes charging, enhances fleet performance, and supports grid stability.

Grid Orchestration and Automation

Distributes energy seamlessly and manages it in real time.

Clean Energy Integration

Maximizes renewable energy use and helps lower overall emissions.

Cloud-driven Transformation

Connects real-time energy data to enable smarter, faster grid decisions.

Cybersecurity and Cost Optimization

Secures smart systems and reduces dependency on the main grid for more efficient operations.

Regulatory Compliance

Ensures alignment with sustainability targets and emissions standards.

AI REDUCES ENERGY INTENSITY

CARBON MANAGEMENT

AI plays a key role in helping businesses, cities, and individuals better manage and reduce their carbon impact. From real-time monitoring to smarter decision-making, AI makes carbon management more precise, proactive, and impactful, helping pave the way to a low-carbon future.

From monitoring to mitigation, here's how AI powers every step of carbon management

Carbon Capture and Storage (CCS) Optimization

Identifies ideal sites, streamlines capture processes, and detects leaks early.

Methane Management and Mitigation Strategies

Uses AI to monitor, detect, and reduce methane emissions effectively.

Flare Management and Optimization

Tracks flaring activity in real time and minimizes unnecessary emissions.

GHG Inventory Management

Automates data capture and analysis for carbon-intensive industries.

Predictive Analytics for Carbon Footprint Reduction

Forecasts energy use, improves efficiency, and reduces carbon output.

Carbon Emission Monitoring

Automates emissions tracking to meet compliance and reporting needs.

Supply Chain Optimization

Lowers emissions through smarter routing, logistics, and load planning.

Carbon Trading and Market Analysis

Forecasts credit trends, manages risk, and optimizes carbon portfolios.

Reporting and Regulatory Compliance

Ensures accurate emissions reporting and alignment with global standards.

AI MAKES RENEWABLES MORE RELIABLE

RENEWABLES AND STORAGE

AI helps unlock the full potential of renewable energy and storage, making generation smarter, storage more efficient, and the grid more stable. From forecasting to energy trading, it is helping renewable energy go further, delivering cleaner power, smarter storage, and a more reliable grid.

From sun and wind power to smart storage, here's how AI connects it all

AI-driven Optimization

Boosts solar, wind, and microgrid efficiency with seamless renewable integration.

Forecasting and Predictive Analytics

Uses AI to anticipate consumption and improve energy distribution.

Energy Storage and Battery Optimization

Maximizes availability and efficiency with smart charge-discharge cycles.

Predictive Maintenance

Reduces downtime and enhances asset life with AI-led issue detection.

Scalable Energy Management Solutions

Adapts to diverse projects with flexible, scalable deployment.

AI-powered Energy Trading

Improves market decisions for cost savings and sustainable outcomes.

AI PAVES THE PATH TO NEUTRALITY

NET ZERO AND SUSTAINABILITY

Reaching Net Zero and building a sustainable future requires bold thinking and smarter systems. AI brings powerful tools to help optimize energy, reduce emissions, and support greener choices across industries, cities, and communities.

From insight to action, here's how AI brings sustainability to life

ESG Reporting

Ensures accurate compliance and delivers deep sustainability insights.

Sustainable Operations Optimization

Uses AI to reduce waste and enhance resource efficiency.

AI-driven Energy Efficiency

Lowers emissions by optimizing energy use across systems and processes.

Smart Supply Chain Insights

Minimizes environmental impact and improves sustainability across logistics.

Climate Risk Modeling

Forecasts and mitigates risks with AI-powered climate and disaster models.

Environmental Monitoring

Tracks carbon, water, and biodiversity with real-time AI insights.

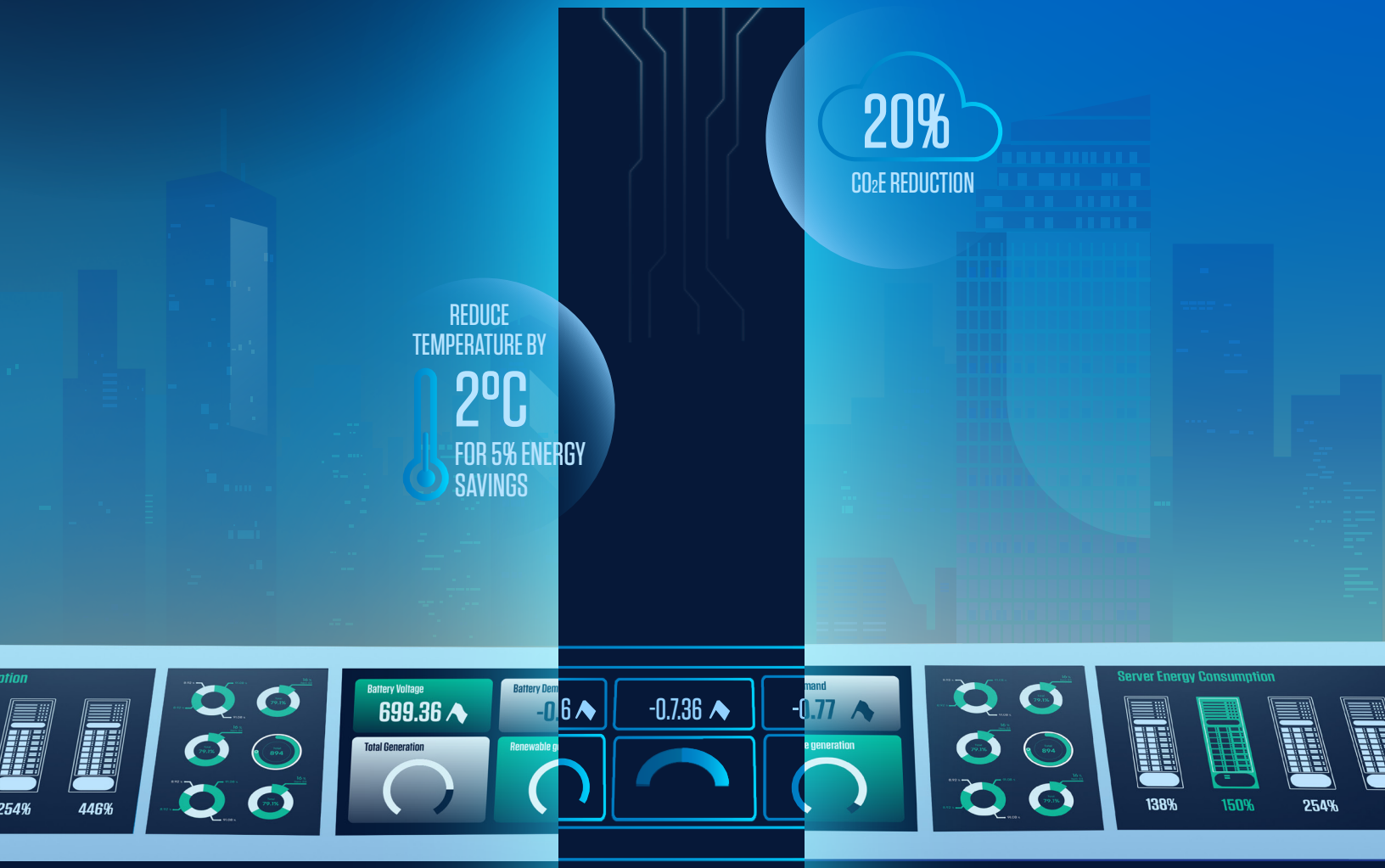
Digital Net Zero Strategies

Builds industry-specific net-zero roadmaps using AI-led approaches.

Green IT Infrastructure Management

Reduces emissions and improves efficiency across IT systems and operations.

AI AMPLIFIES ENERGY EFFICIENCY



SMART ENERGY SOLUTIONS

AI helps modernize the way energy is produced, distributed, and consumed. By making systems smarter and more responsive, it boosts efficiency, reduces waste, and supports more sustainable energy practices across homes, businesses, and industries.

From generation to consumption, here's how AI makes every step smarter

Energy Demand Forecasting

Predicts energy needs and customer behavior for smarter use.

Optimized Energy Efficiency

Enhances performance in buildings and industrial systems to cut energy waste.

Renewable Energy Integration

Forecasts output and streamlines renewable input into existing grids.

Energy Storage Solutions

Optimizes charge cycles and boosts reliability with smart storage management.

Real-time Environmental Monitoring

Tracks emissions, energy use, and sustainability targets in real time.

Sustainable Data Center Cooling

Uses AI to lower energy use and improve cooling efficiency in data centers.

LET'S MAKE THE SHIFT, TOGETHER

For more information, scan

#EnergyTransitionNow

For more information, contact askus@infosys.com

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