



HITACHI
Inspire the Next

Hitachi Energy Investor Days 2023

November 13-15, 2023

Switzerland and Sweden

2023-11-13

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 **Hitachi Energy**

Hitachi Energy Investor Days 2023

Welcome & Introduction



Claudio Facchin

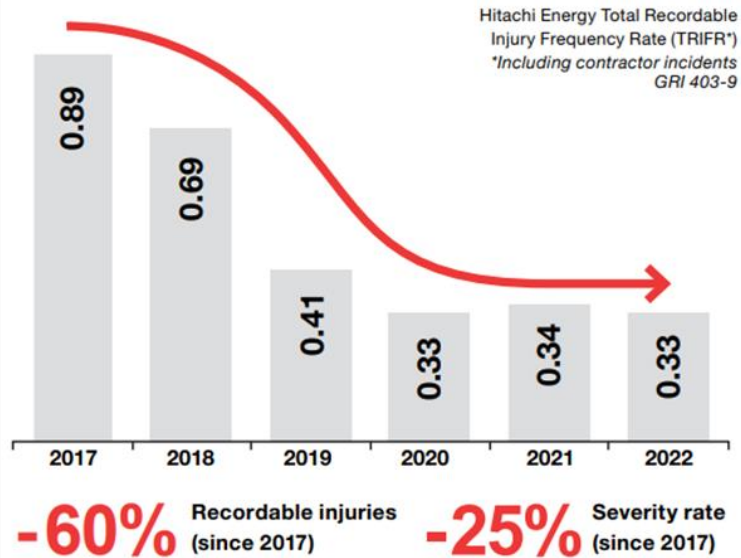
Senior Executive VP, Hitachi, Ltd.
and CEO, Hitachi Energy



Hitachi Energy –
Advancing a sustainable
energy future for all



Health & Safety



Ethics & Integrity

2021

Ethisphere's Compliance Leader Verification™ and Anti-Bribery Management System Verification™

2022

ISO 37001 Anti-Bribery Management System global certification

Lean Six Sigma used across operations

~2k Ongoing continuous improvement projects

30k+ Employees trained in Lean Six Sigma



Safety

Integrity

Quality

1

We are well-positioned in attractive markets to accelerate the clean energy transition in collaboration with customers and partners as a market and technology leader in power grids

2

We drive profitable and sustainable growth with our Hitachi Energy 2030 strategy, in line with the Hitachi Mid-term Management Plan 2024

3

We will continue to invest in energy and digital platforms, creating social, environmental and economic value for customers, employees, investors and other key stakeholders

4

We are committed to deliver sustainable growth in earnings and cash

Hitachi Energy is uniquely positioned to deliver profitable and sustainable growth, collaborating with customers and partners to accelerate the clean energy transition

Hitachi Energy – Power Grids global technology and market leader

Global leader in Power Grids technologies

>40,000 employees

90+ countries with 200 offices

~250 years' heritage combined

Customers



- Utilities
- Industry
- Transport & Infrastructure

Offering



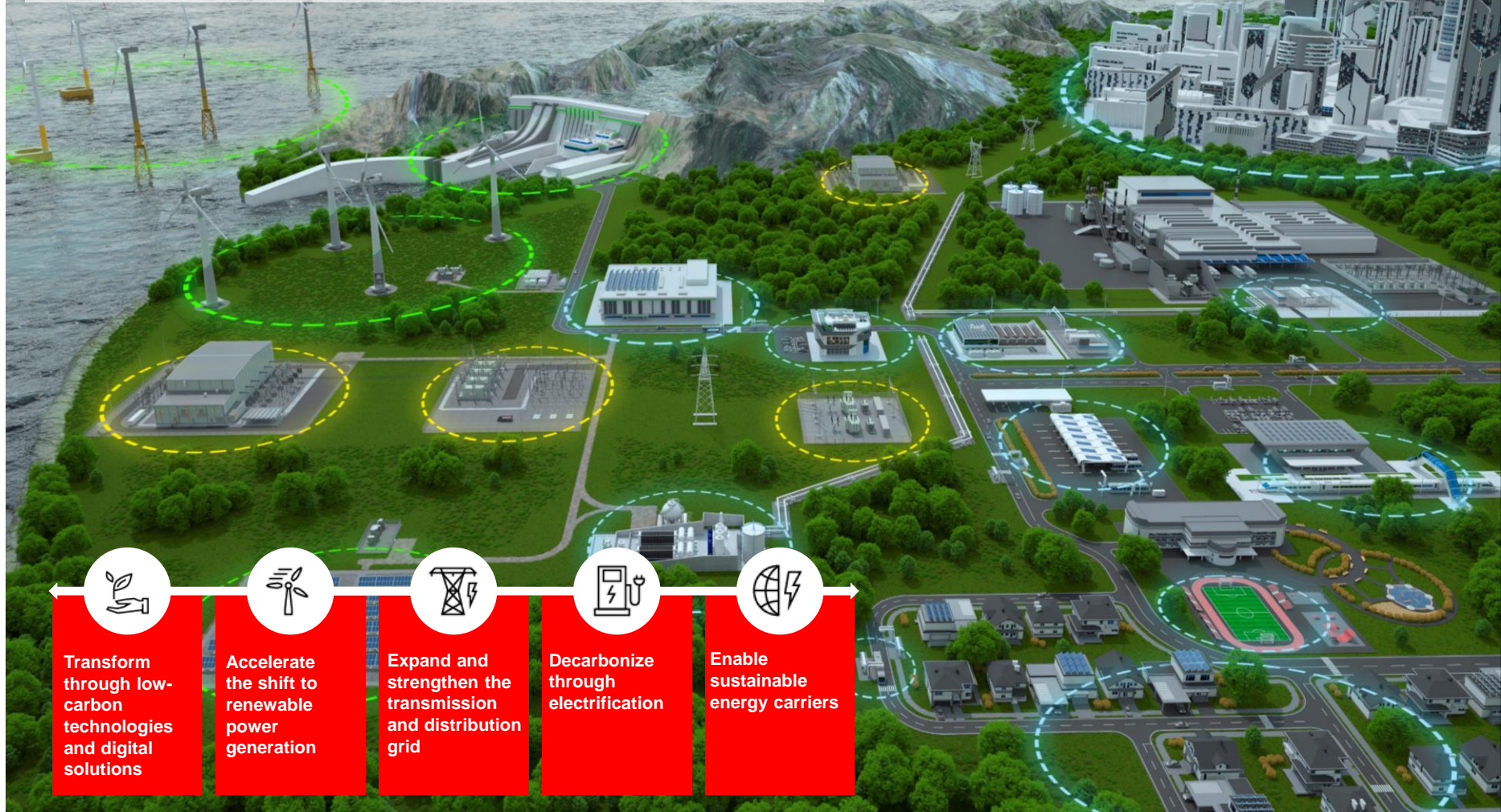
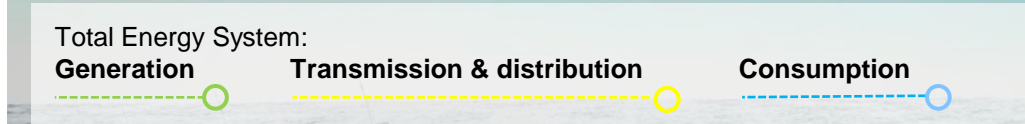
- Products
- Systems
- Software & Automation
- Services


Geographies





- Europe
- Americas
- Asia, Middle East & Africa


% split based on FY 2022 orders




- 

Transform through low-carbon technologies and digital solutions
- 

Accelerate the shift to renewable power generation
- 

Expand and strengthen the transmission and distribution grid
- 

Decarbonize through electrification
- 

Enable sustainable energy carriers

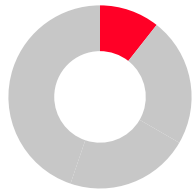
Grid Automation (GA)



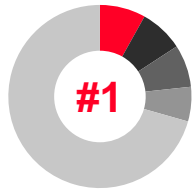
Supporting 50% of the top 250 global electric utilities

Leading Grid Edge references & > 5,000 MW¹ grid integrated (including eks Energy)

\$4 trillion+ critical infrastructure assets managed



Revenues



Market share

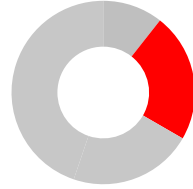
Grid Integration (GI)



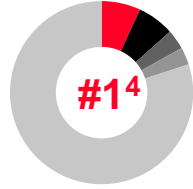
Global leader in HVDC² >150 GW³ of HVDC links integrated into the power system

4,000+ power quality systems operating globally, across 50+ countries

~15,000 systems operating globally, across 50+ countries



Revenues



Market share

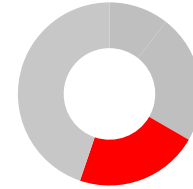
High Voltage Products (HV)



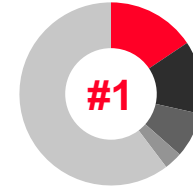
Installed 1 out of 4 high-voltage switchgear in the world

>500k high-voltage circuit-breakers installed globally

Leading EconiQ SF₆-free high-voltage product portfolio



Revenues



Market share

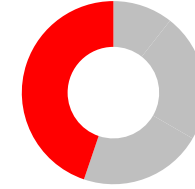
Transformers (TR)



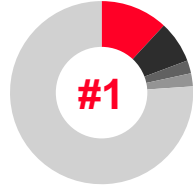
Global leader across complete range of transformers, components & services

From distribution up to UHV⁵ 1,200 kV AC⁶ & 1,100 kV DC⁷

World's largest installed base and largest portfolio/applications



Revenues



Market share

Driving innovation, pioneering digital technologies and leveraging the world's largest installed base for service opportunities

“
Electricity will
be the backbone
of the entire
energy system

01

Accelerated shift from fossil-based to renewable power generation

02

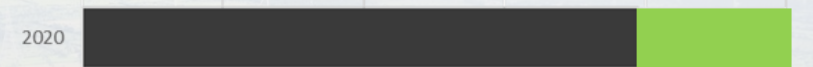
Growing electrification of Transportation, Industry and Buildings sectors

03

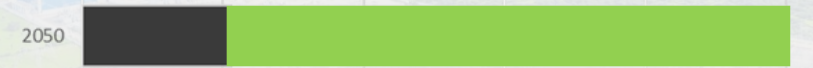
Sustainable energy carriers, complementary to direct electrification

Share of fossil-free energy:

2020 ~ 20% fossil-free energy supply



2050 ~ 80% fossil-free energy supply



Global electricity demand growth to 2050:



Industries doubling to >20 PWh



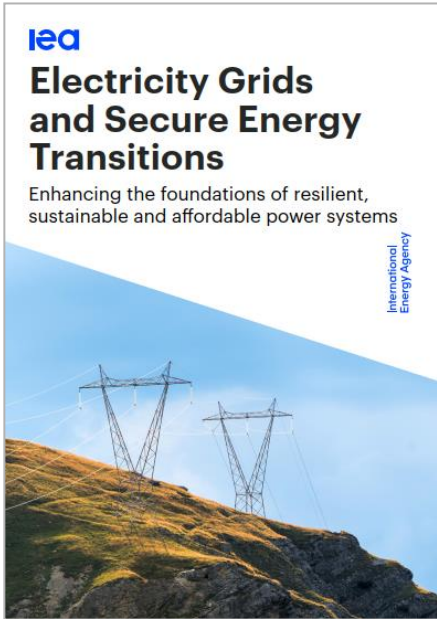
Buildings growing ~50% to >15 PWh



Transportation growing >30x to ~10 PWh

Reference value: China electricity consumption 2022 approx. 8.6 PWh, US appr. 4 PWh, EU appr. 2.8 PWh

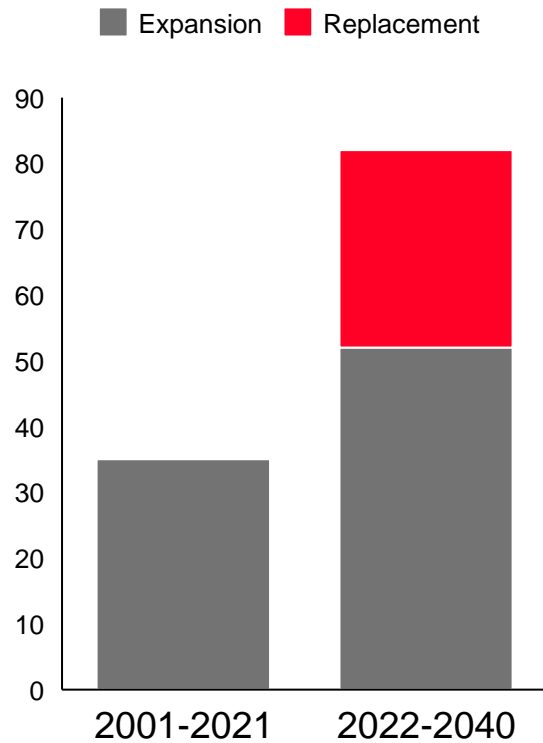
In the global power system of 2050, we need four times of today's generation capacity and we will need to transfer three times as much electrical energy



“
We must invest in grids today or face gridlock tomorrow
Dr. Fatih Birol
Executive Director IEA

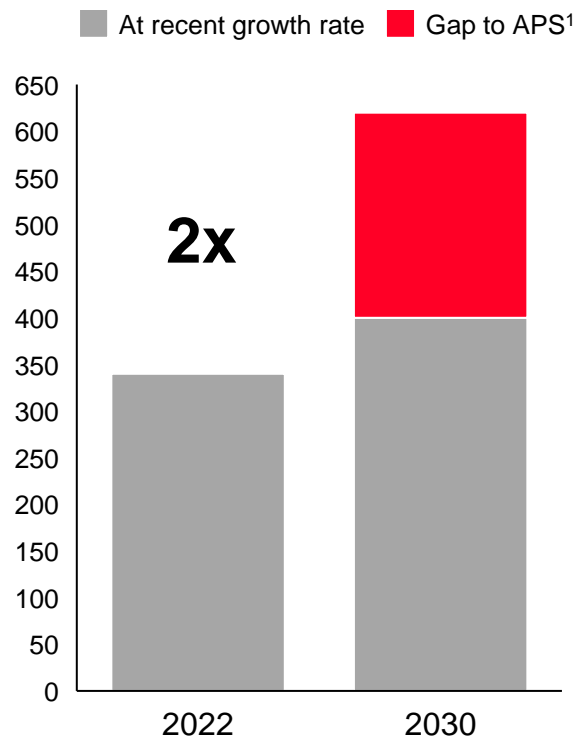
In scale of infrastructure...

Grid lengths, m km



...and in grid investment

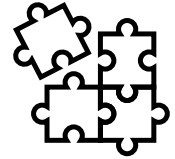
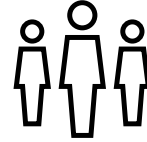
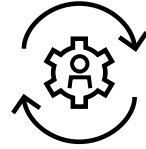
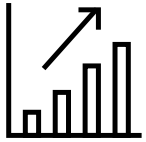
USD \$bn



Key drivers

- Electrification and demand growth**
- Renewables transition**
- Macro & regulatory environment**
- Aging infrastructure**

We have streamlined the business and we are well positioned for growth



Improved performance and resilience

Enablers

Investing for growth

Business model, collaboration & innovation

Building synergies

Increasing size and quality of backlog

Operational excellence across the value chain

Expand capacity and workforce to meet growing demand

Partnerships ecosystem

Energy + Digital value creation synergies

Sustained demand across business and regions

Productivity and working capital enhancement

Digital & Service opportunities

Innovating with collaborative business models

Global footprint, e.g., account management

Proactively leverage tailwinds and mitigate headwinds

Digital and IT transformation

Innovation and R&D investment

Selectivity in line with Strategic Plan

IT, ERP harmonization

~15%

Revenue growth

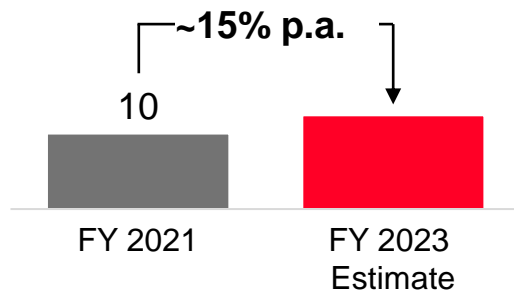
(CAGR FY 2021 - FY 2023 E)



Continuously strengthen core power grids business

Further invest in growth enablers: capacity, workforce, R&D, digital

Revenue, BUSD



7 BUSD+

Renewable integration with new business models

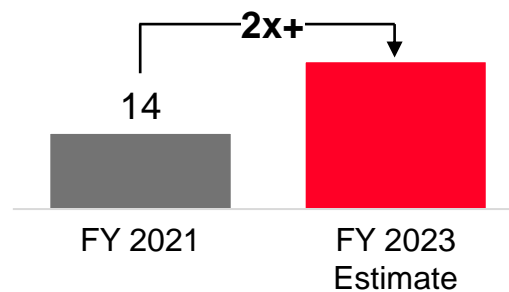
(Orders FY 2021 - H1 2023)



Life cycle partner across the power value chain

Innovative business models and collaborations

Order backlog, BUSD



~0.5 BUSD p.a.

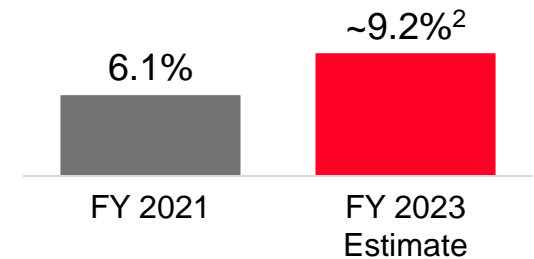
positive impact from enablers



Continue productivity and digital transformation

Proactively address commodity and inflationary headwinds

Adj. EBITA %, Standalone¹




“

Since we started the journey with Hitachi in 2020, we have been able to accelerate our growth and expansion, also leveraging synergies across Hitachi Group

\$3 billion
Investments
since 2020



8,000+
People hired



Manufacturing



New factory: Bac Ninh, Vietnam



Expansion: Dosquebradas, Colombia



New factory: Bangalore, India



New factory: Chongqing, China



Expansion: Bland and Jefferson City in the US



New valve and C&P¹ factory: Chennai, India

Engineering



- **2,500+** technologists across business and functions in one campus
- Extensive **capabilities** from **hardware** to **software**, from **HVDC** to **microgrids**
- **Over 1,000** engineering projects across 40+ countries executed every year



○ Manufacturing sites approximate location
● Countries of operations

“

Our technologies enable the integration of 3 out of every 4 GW of installed offshore wind capacity

01 Strengthen the Core:
Continuously strengthening our power grids core business

02 Expand Digital & Services:
Doubling efforts on Digital & Services. Expanding at the edge of the energy system

03 Innovate & Collaborate:
Innovation, Synergies, Partnerships & M&A to accelerate growth

Utilities – Industry – Transport & Infrastructure



IT, OT, IoT

Energy Expertise & Digitalization enabling the Energy Transition at scale & speed

Expand as **planning partner**

Strengthen role as **product & systems partner**

Expand as **services & operations partner**

Innovation & People

Transition

Strengthen & Expand

Accelerate

Sustainable growth

2021

2024

2027

2030

Hitachi Energy 2030 - our commitment to advancing a sustainable energy future for all, delivering social, environmental and economic value, aligned with Hitachi's vision and goals



Power Electronics

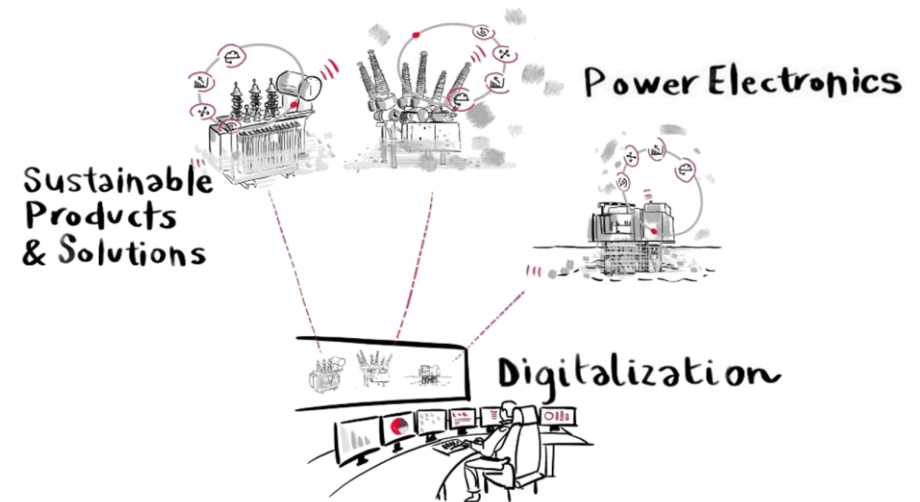


Digital technology and services

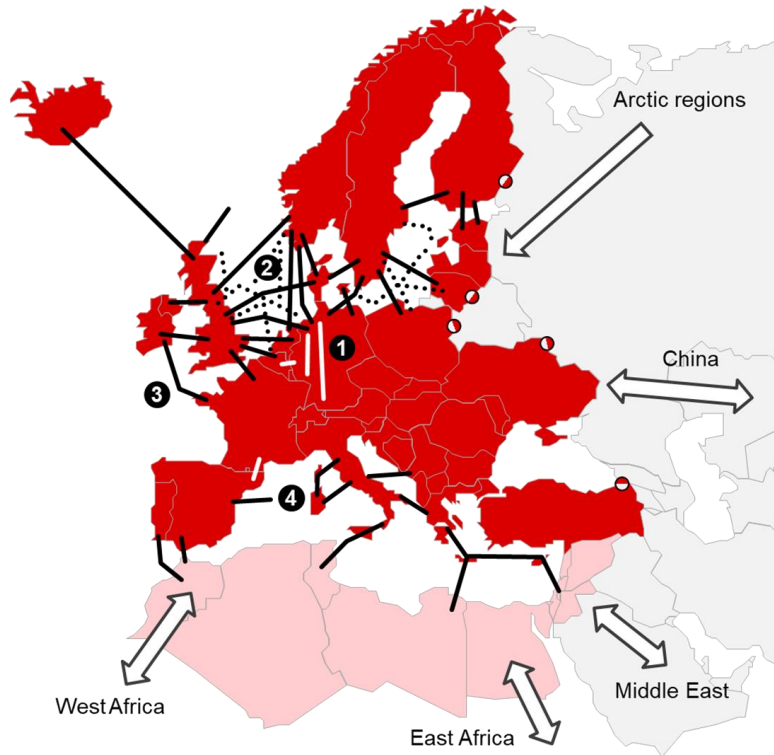


Sustainable products and solutions

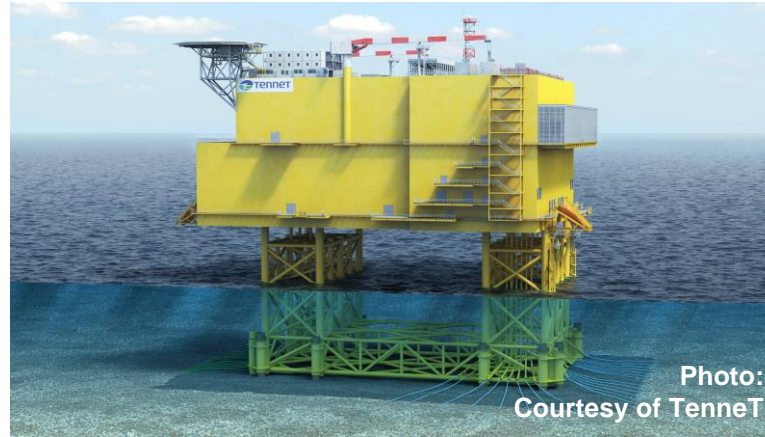
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Each clean GW that we add to the energy system needs to be balanced with an increase in grid capacity and flexibility to meet security, reliability and resilience



2020-2050: from some HVDC links to interconnected meshed offshore grid



TenneT 2GW: Long-term agreement with global standards & new collaborative business models



- 13 BEUR framework agreement
- Driving market and technology standards
- Enabling deployment of technology at scale
- Collaboration with partners

ADNOC – Project Lightning: Delivering clean power from shore



- 30% CO₂ emissions reduced in ADNOC's operations
- 100% fossil-free power from shore
- 3,200 MW of system capacity
- 4 HVDC Light[®] converter stations

Hitachi Energy market and technology leadership with over 150 GW of HVDC links integrated into the power system globally



01

Strengthen the Core:

Continuously strengthening our power grids core business



02

Expand Digital & Services:

Doubling efforts on Digital & Services.
Expanding at the edge of the energy system



03

Innovate & Collaborate:

Innovation, Synergies, Partnerships & M&A to accelerate growth

“

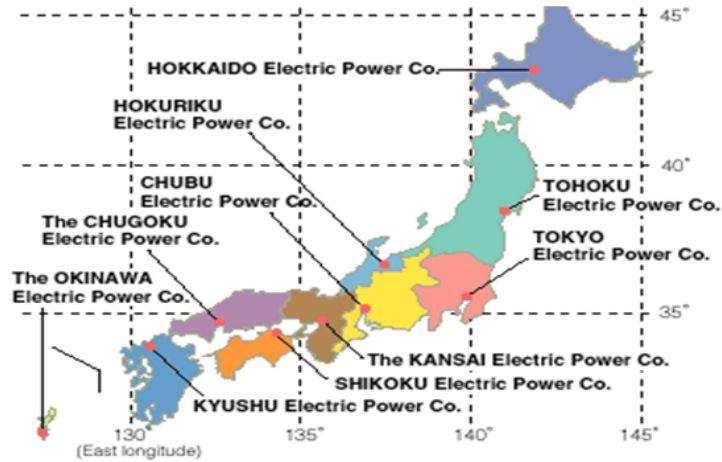
We are proud of what we have already developed with eks Energy, including one of the world's largest battery projects in history, the Waratah Super Battery (WSB) where eks Energy's unrivaled power conversion systems are able to meet the Australian grid operators' high standards of performance.

Jeff Waters
CEO, Powin

Hitachi Energy adds advanced power electronics and energy management software capabilities to meet accelerated, global demand for battery energy storage solutions

Synergies between Hitachi Energy, GlobalLogic & Hitachi Digital Services - An unparalleled competitive advantage

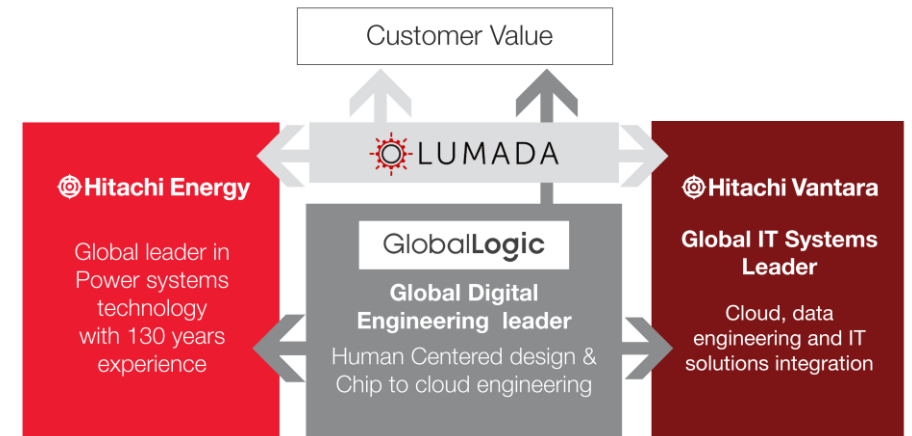
Encompassing all of Japan- The Ten Electric Power Companies by Service Areas



First of its kind system integrating nationwide grid and market operations, enabled by combining Hitachi & Hitachi Energy IT/OT world-leading capabilities

Combining Hitachi unique IT, OT, products and services capabilities

- Hitachi Social Infrastructure BU¹
- Hitachi Energy



01 Transparency, validation & recognition



02 Our 360° approach to ESG¹: beyond carbon neutrality

Circularity

Biodiversity

-75% Scope 1 and 2
GHG Emissions
equal to -269 ktCO₂e
vs. baseline (2019)

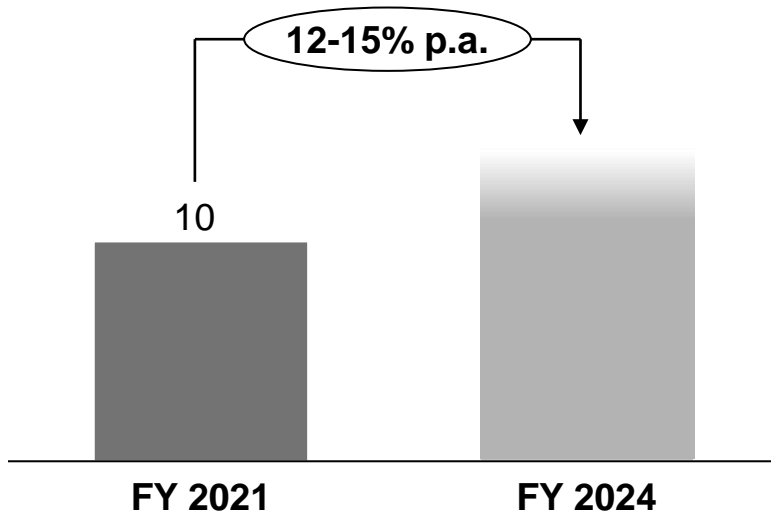
100% fossil-free electricity
in our operations

03 Maximizing positive impact through engagement & collaboration

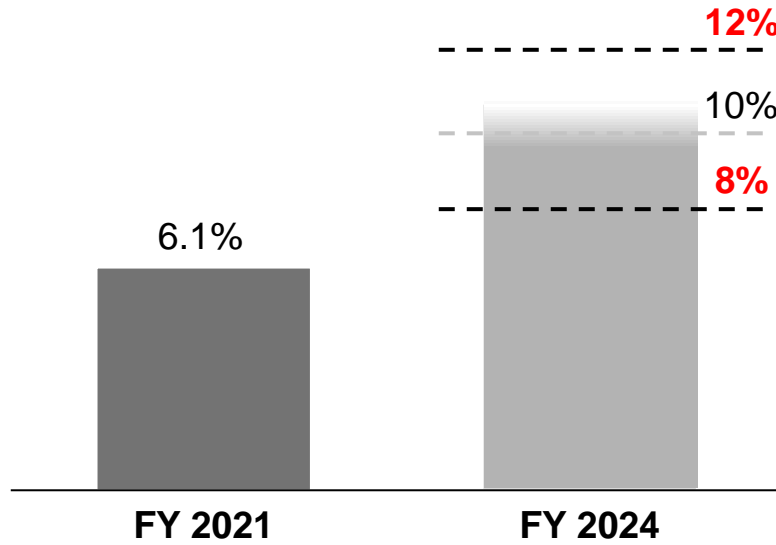
Updated Sustainability strategy:
portfolio focus, aligned to our
Hitachi Energy 2030 plan

Co-creation of social,
environmental and
economic value

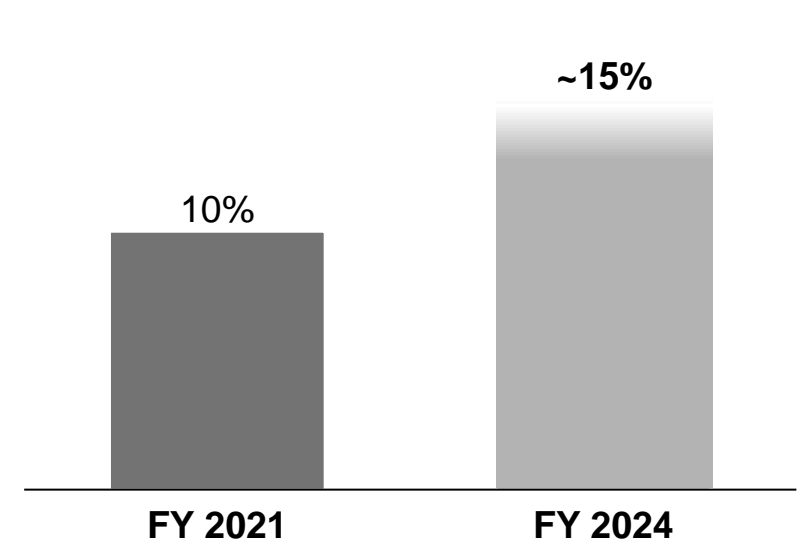
Revenues, BUSD



Adj. EBITA %, Standalone¹



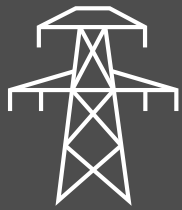
ROIC² %, Standalone¹



Sustaining industry leadership in performance

Continue to grow above market and sustain margins, at upper end of range 2024+

Hitachi Energy will continue to create significant value



Significant
market tailwinds



High
growth



High capital
returns



High value creating
business



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Concluding Remarks



Claudio Facchin

Senior Executive VP, Hitachi, Ltd.
and CEO, Hitachi Energy



Hitachi Energy –
Advancing a sustainable
energy future for all



Well positioned...

Hitachi Energy global leader

>10 BUSD
Business volume¹

>40,000
employees

90+
countries

120+
factories

World's largest installed base



Customers

- Transport & Infrastructure
- Industry
- Utilities



Offering

- Services
- Software & Automation
- Systems
- Products



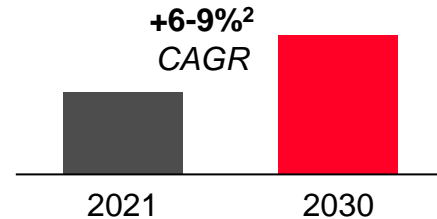
Geographies

- Asia, Middle East & Africa
- Americas
- Europe

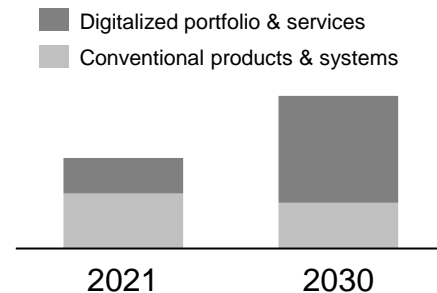
% split based on FY 2022 orders

...in attractive markets...

Higher growth driven by electrification and decarbonization



Digitalized portfolio & services



Synergies between Hitachi Energy, GlobalLogic & Hitachi Digital Services

...with a purpose-driven strategic plan...

Hitachi Energy 2030

01 Strengthen the Core: Continuously strengthening our power grids core business

02 Digital & Services: Doubling efforts on Digital & Services. Expanding at the edge of the energy system

03 Innovate & Collaborate: Innovation, Synergies, Partnerships and M&A to accelerate growth

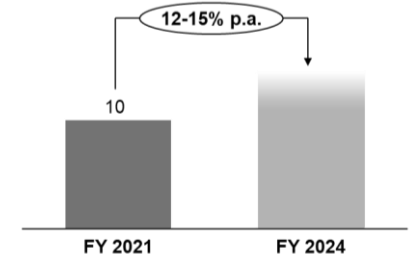
2 Foundations

Innovation

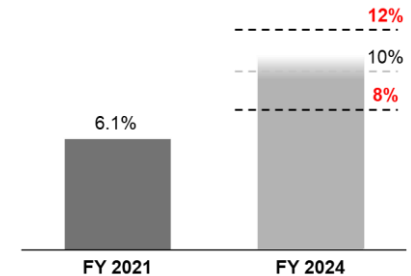
People

....to deliver profitable and sustainable growth

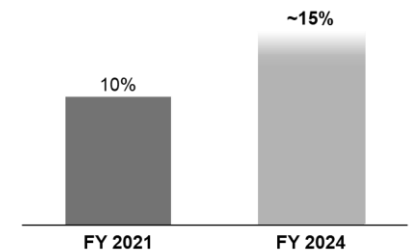
Revenues, BUSD



Adj. EBITA %, Standalone³



ROIC⁴ %, Standalone³

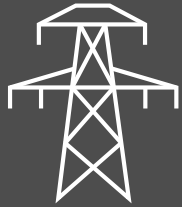


Source: Internal Analysis, Consolidated Market

1 Revenues 2 Hitachi Energy projections and McKinsey Energy Insights Global Energy Perspective 2023

3 Excluding related cost and Hitachi internal fees 4 Return on Invested Capital

Hitachi Energy will continue to create significant value



Significant
market tailwinds



High
growth



High capital
returns



High value creating
business



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