



**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**

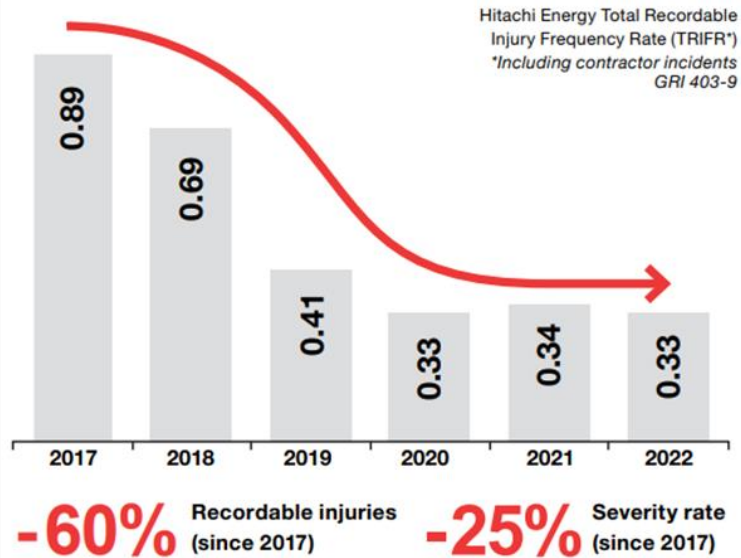
Senior Executive VP, Hitachi, Ltd.  
and CEO, Hitachi Energy



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**



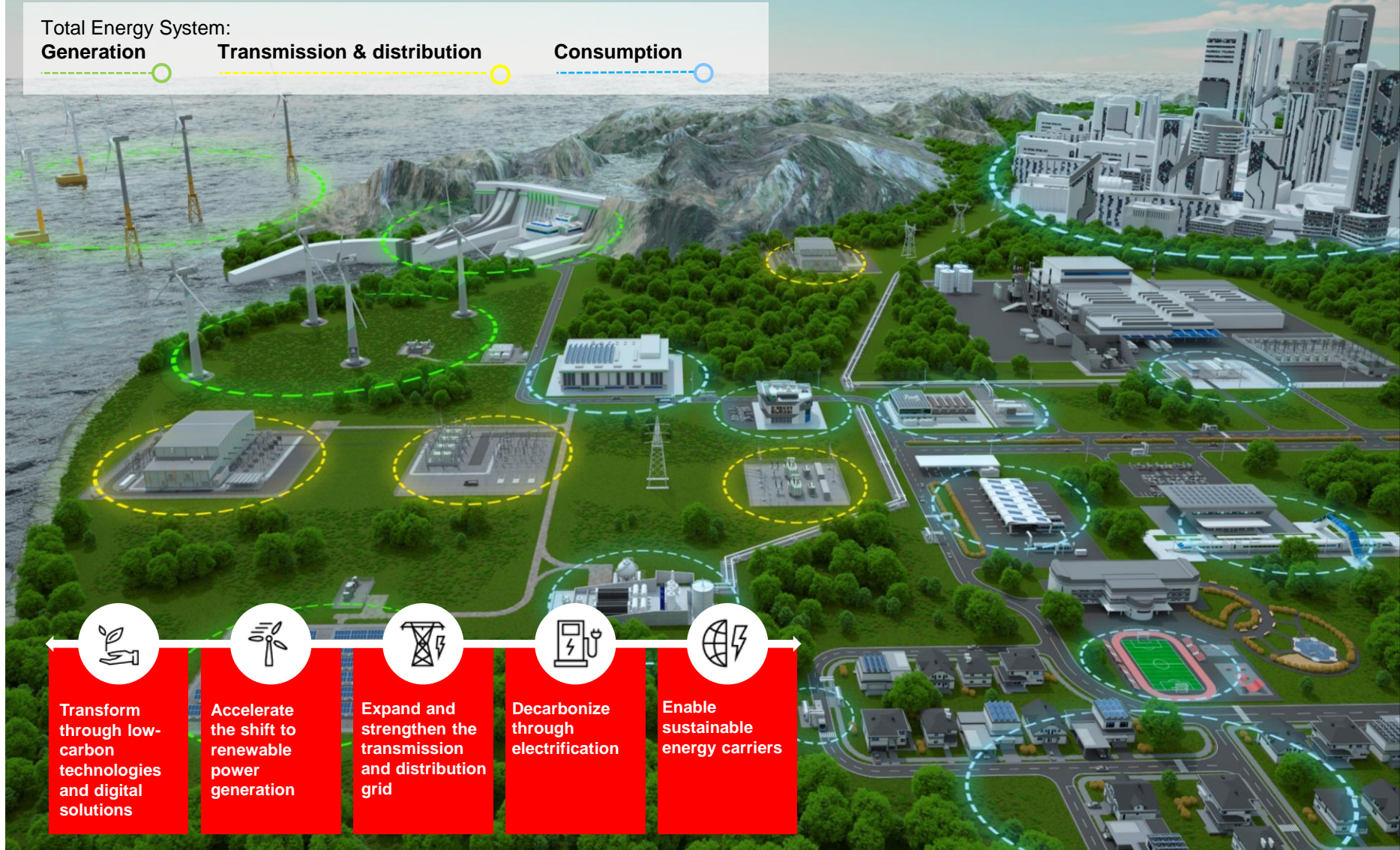
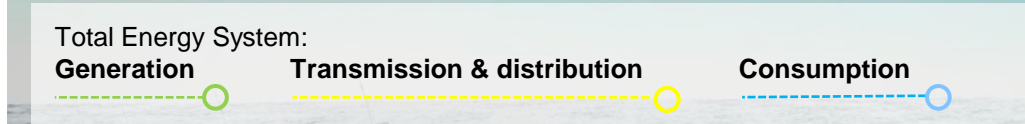
- Products
- Systems
- Software & Automation
- Services


**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

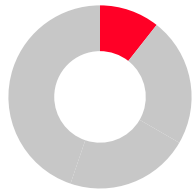
## Grid Automation (GA)



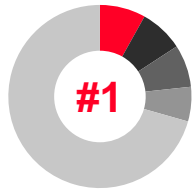
Supporting 50% of the top 250 global electric utilities

Leading Grid Edge references & > 5,000 MW<sup>1</sup> grid integrated (including eks Energy)

\$4 trillion+ critical infrastructure assets managed



Revenues



Market share

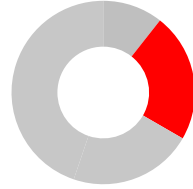
## Grid Integration (GI)



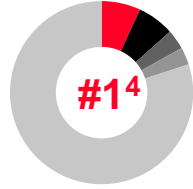
Global leader in HVDC<sup>2</sup> >150 GW<sup>3</sup> of HVDC links integrated into the power system

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

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



Revenues



Market share

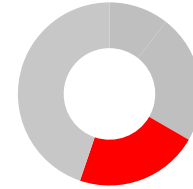
## High Voltage Products (HV)



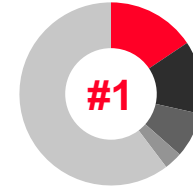
Installed 1 out of 4 high-voltage switchgear in the world

>500k high-voltage circuit-breakers installed globally

Leading EconiQ SF<sub>6</sub>-free high-voltage product portfolio



Revenues



Market share

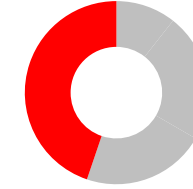
## Transformers (TR)



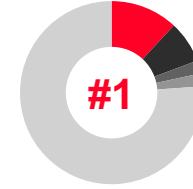
Global leader across complete range of transformers, components & services

From distribution up to UHV<sup>5</sup> 1,200 kV AC<sup>6</sup> & 1,100 kV DC<sup>7</sup>

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**

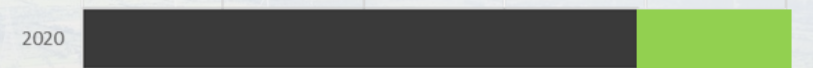
Growing electrification of Transportation, Industry and Buildings sectors

**03**

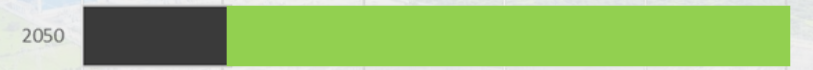
Sustainable energy carriers, complementary to direct electrification

## 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



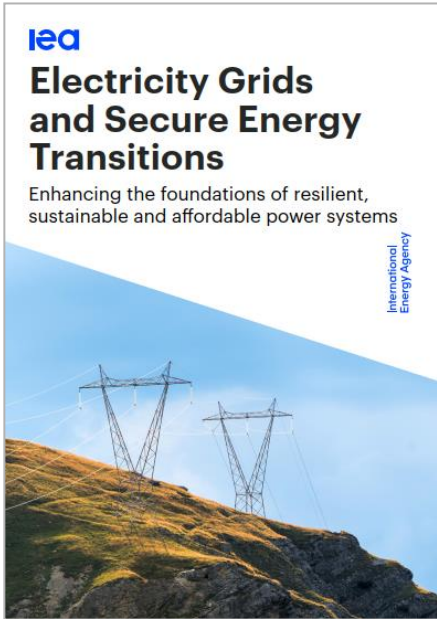
Buildings growing ~50% to >15 PWh



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**



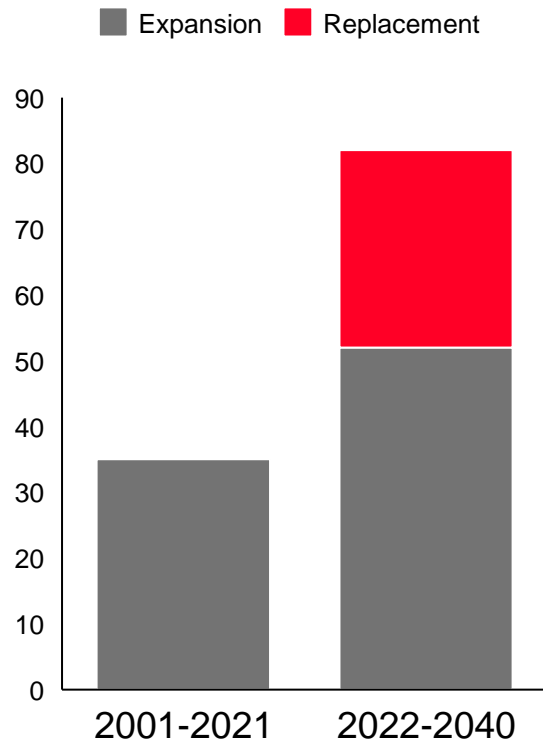
“

We must invest in grids today or face gridlock tomorrow

**Dr. Fatih Birol**  
Executive Director IEA

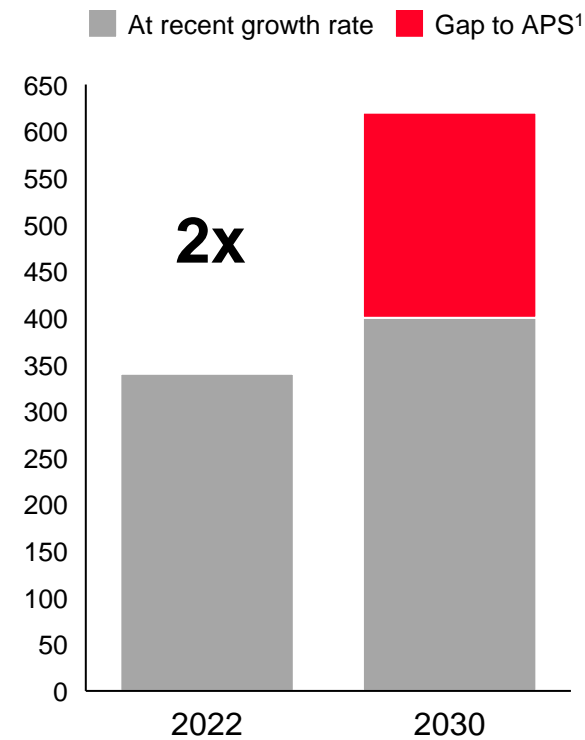
## In scale of infrastructure...

Grid lengths, m km



## ...and in grid investment

USD \$bn



## Key drivers



**Electrification and demand growth**



**Renewables transition**



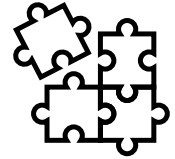
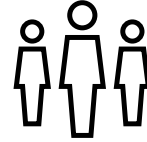
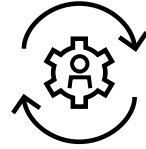
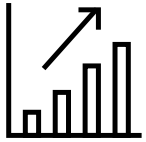
**Macro & regulatory environment**



**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

**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

**~0.5 BUSD p.a.**

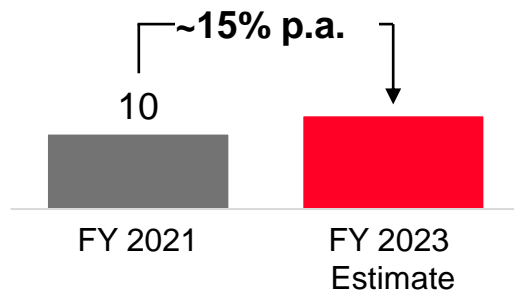
**positive impact from enablers**



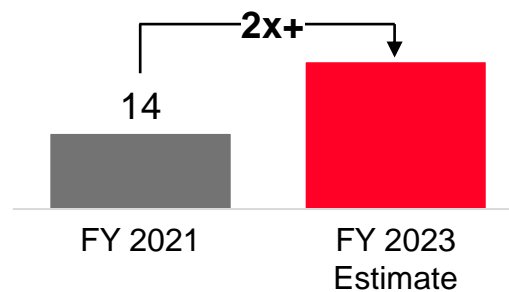
Continue productivity and digital transformation

Proactively address commodity and inflationary headwinds

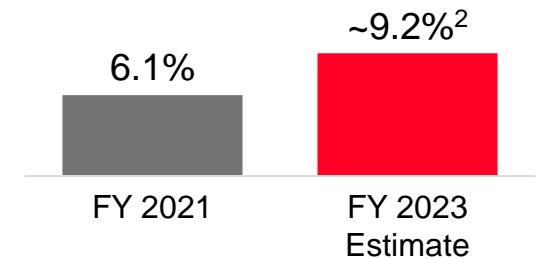
Revenue, BUSD



Order backlog, BUSD



Adj. EBITA %, Standalone<sup>1</sup>



“

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**

**Engineering**



New factory: Bac Ninh, Vietnam



Expansion: Dosquebradas, Colombia



New factory: Bangalore, India



New factory: Chongqing, China



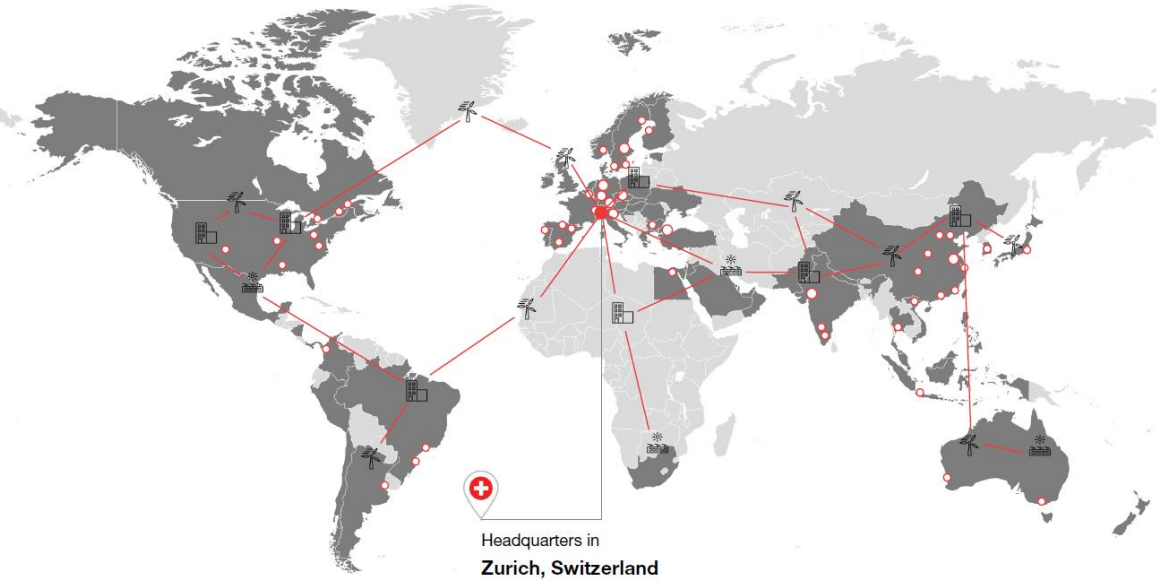
Expansion: Bland and Jefferson City in the US



New valve and C&P<sup>1</sup> factory: Chennai, India



- **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



“

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**

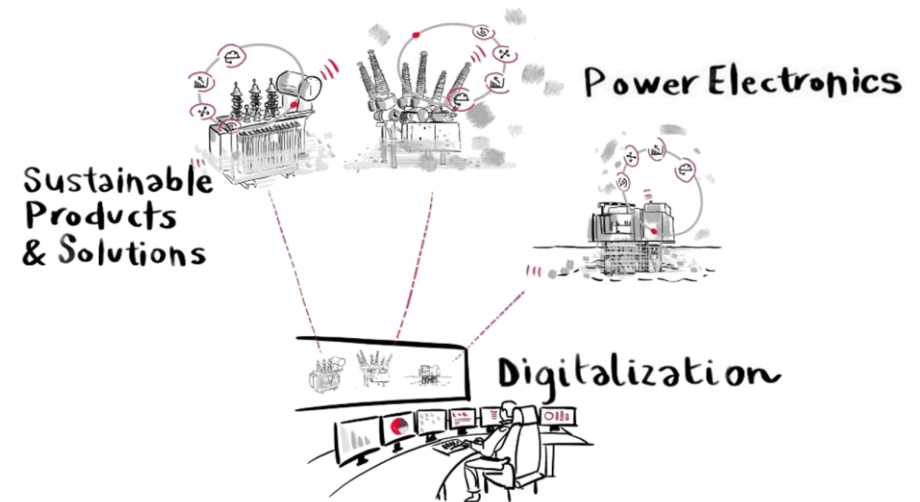


**Digital technology and services**

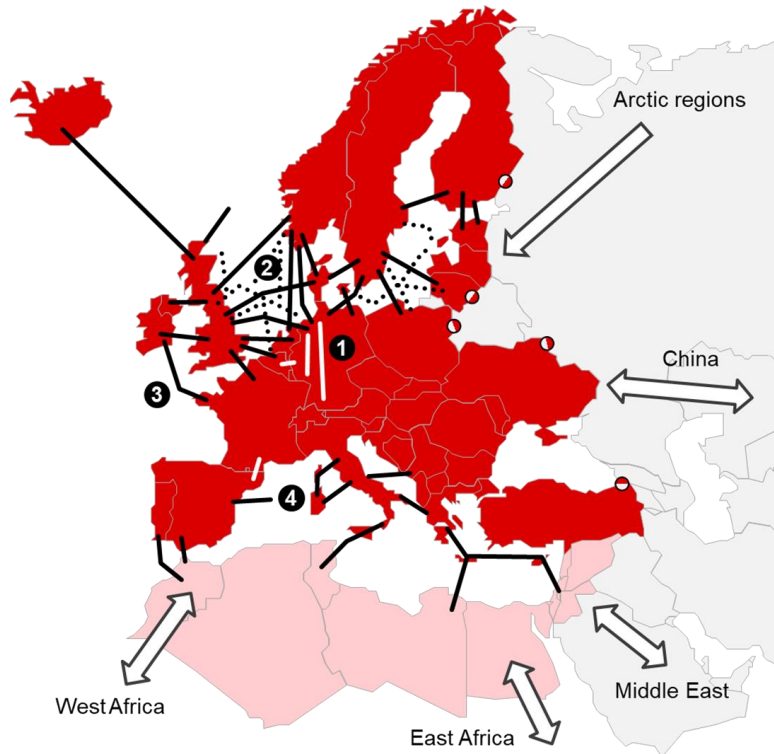


**Sustainable products and solutions**

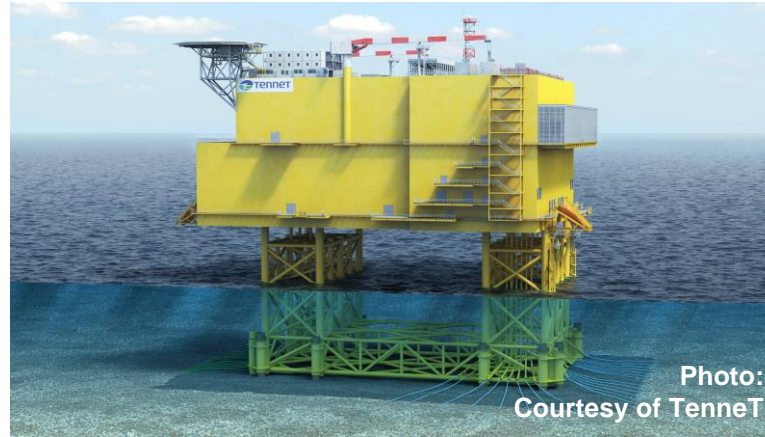
“  
Each clean GW that we add to the energy system needs to be balanced with an increase in grid capacity and flexibility to meet security, reliability and resilience



**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% CO<sub>2</sub> 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

“

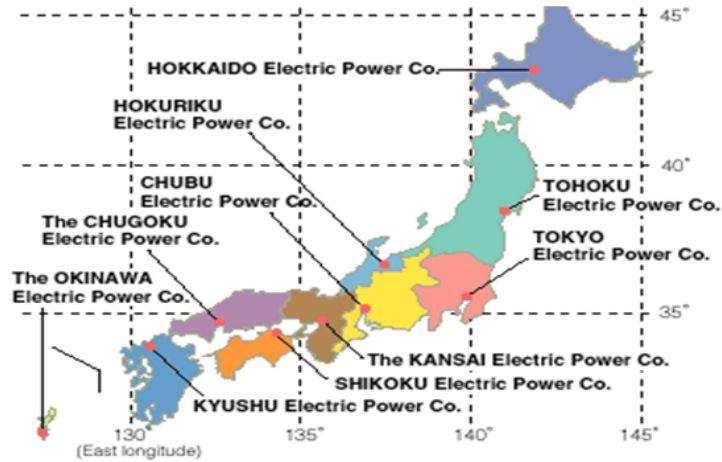
We are proud of what we have already developed with eks Energy, including one of the world's largest battery projects in history, the Waratah Super Battery (WSB) where eks Energy's unrivaled power conversion systems are able to meet the Australian grid operators' high standards of performance.

**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

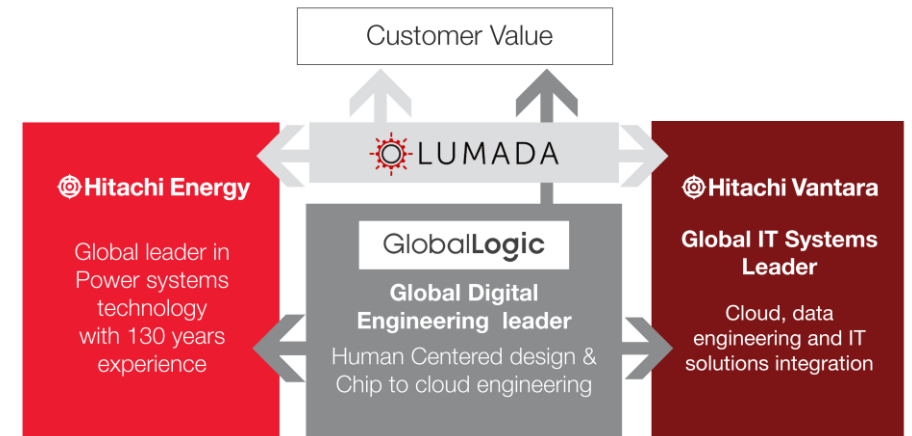
## Encompassing all of Japan- The Ten Electric Power Companies by Service Areas



**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 BU<sup>1</sup>
- Hitachi Energy





## 01 Transparency, validation & recognition



## 02 Our 360° approach to ESG<sup>1</sup>: beyond carbon neutrality

Circularity

Biodiversity

**-75%** Scope 1 and 2  
GHG Emissions  
equal to -269 ktCO<sub>2</sub>e  
vs. baseline (2019)

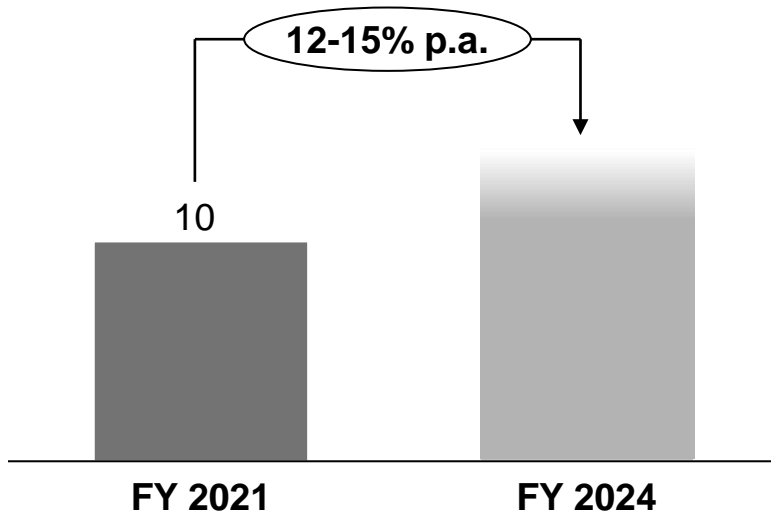
**100%** fossil-free electricity  
in our operations

## 03 Maximizing positive impact through engagement & collaboration

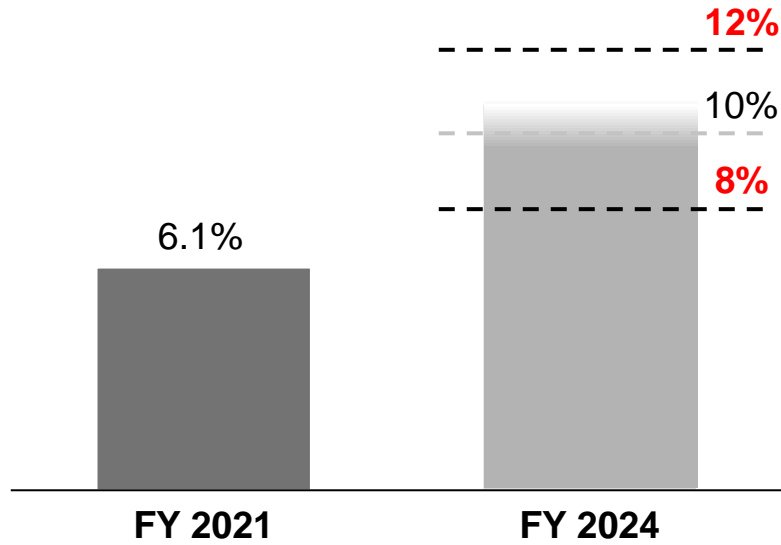
Updated Sustainability strategy:  
portfolio focus, aligned to our  
Hitachi Energy 2030 plan

Co-creation of social,  
environmental and  
economic value

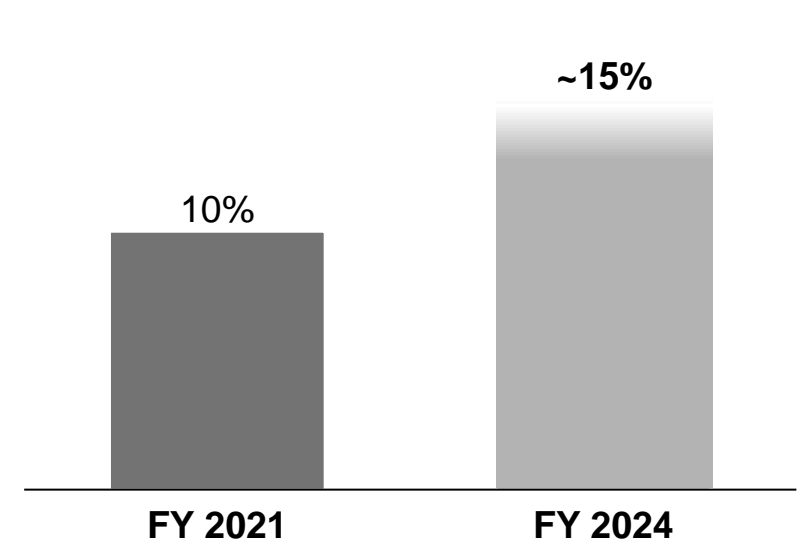
## Revenues, BUSD



## Adj. EBITA %, Standalone<sup>1</sup>



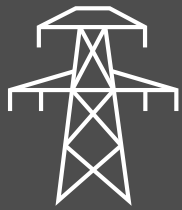
## ROIC<sup>2</sup> %, Standalone<sup>1</sup>



**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



**HITACHI**  
Inspire the Next 

# Hitachi Energy Investor Days 2023

## 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 volume<sup>1</sup>

**>40,000**  
employees

**90+**  
countries

**120+**  
factories

World's largest installed base



### Customers

- Transport & Infrastructure
- Industry
- Utilities



### Offering

- Services
- Software & Automation
- Systems
- Products



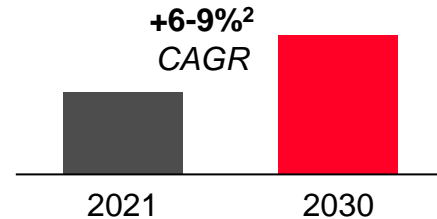
### Geographies

- Asia, Middle East & Africa
- Americas
- Europe

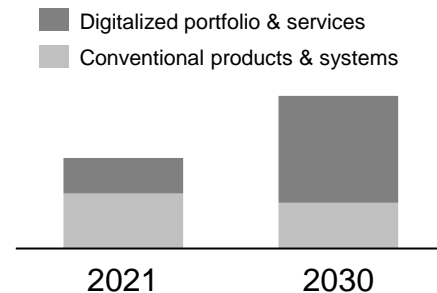
% split based on FY 2022 orders

## ...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

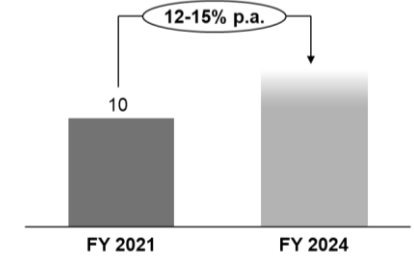
2 Foundations

Innovation

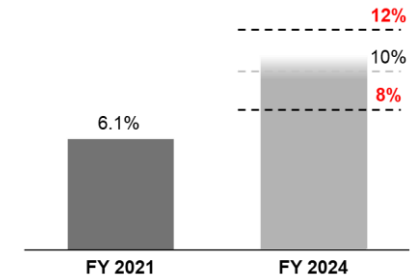
People

## ....to deliver profitable and sustainable growth

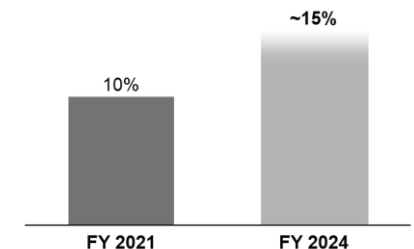
Revenues, BUSD



Adj. EBITA %, Standalone<sup>3</sup>



ROIC<sup>4</sup> %, Standalone<sup>3</sup>

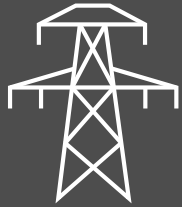


Source: Internal Analysis, Consolidated Market

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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