

# Nasdaq Global Electrification Technologies and Smart Grid™ Index

*A new index capturing the  
technologies powering electrification*

# Why Electrification? Why Now?

- Evergreen, Structural Theme: Electricity as the backbone of the modern economy
- Enabler of AI, EVs, and Clean Energy Transition

## Investment Thesis Overview

- Electricity demand is accelerating structurally, driven by EVs, AI data centers, and industrial electrification, with growth now outpacing GDP and total energy use.
- The energy transition is shifting from generation build-out to system transformation, as grids adapt to higher loads, greater variability, and new sources of demand.
- Enabling this transition requires grid reinforcement, digital control, smart metering, and energy storage - not just new power generation.
- Electrification and smart grids represent the infrastructure layer that allows renewables, AI, and electrified transport to function reliably at scale.

## Why Nasdaq?

- Patent-driven index methodology, powered by Nasdaq's in-house AI and research capabilities
- Forward-looking innovation signals, identifying electrification leaders beyond traditional classifications

# What Electrification Means in Practice: The Key Actors

Excess renewable energy can be stored and dispatched when needed. Nuclear provides a reliable baseload to complement renewables.

Renewables and nuclear integration

Uses real-time monitoring and two-way communication to balance supply and demand and integrate distributed energy sources

Smart Grid

Technologies like batteries, pumped hydro, compressed air, and gravity storage improve reliability, provide backup power, and allow energy to be stored and used when needed

Energy storage

Smart transmission

Strengthen the grid by monitoring and controlling high-voltage power flows. Improve stability, prevent congestion, and allow faster, cost-effective integration of renewable

Smart meters

Grid components

Sensors, intelligent devices, communication networks, control systems enable real-time monitoring and protection

Give consumers visibility over energy use and support dynamic pricing and demand response



# Electrification Industry Overview & Investment Case

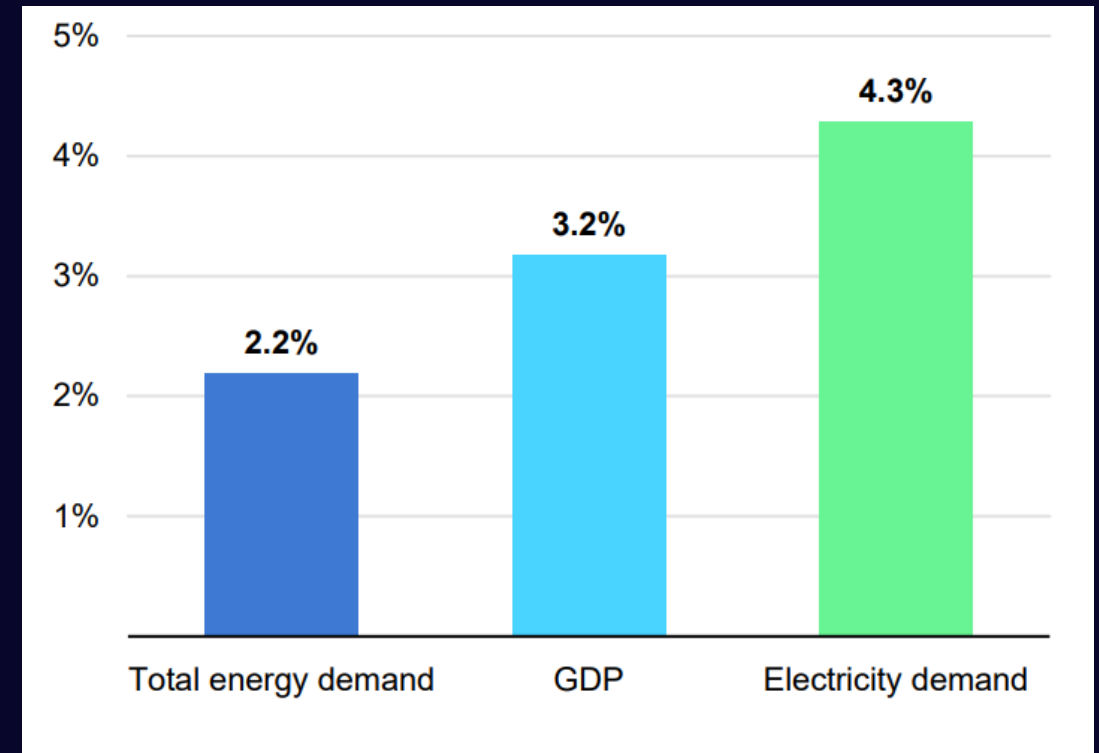
---

# The Age of Electricity

We are living through the fastest acceleration in electricity demand in modern history

- Global electricity demand is growing nearly 2x faster than total energy demand (IEA)
- In 2024 alone demand rose 4.3% - the fastest growth since 2007, outpacing global GDP growth (IEA)
- This reflects structural shifts across the global economy:
  - ✓ Electrification of transport (EVs)
  - ✓ Expansion of AI and data-centers
  - ✓ Industrial electrification and automation
  - ✓ Electrification of heating and buildings
  - ✓ Increasing cooling demand

Key global growth rate, 2024

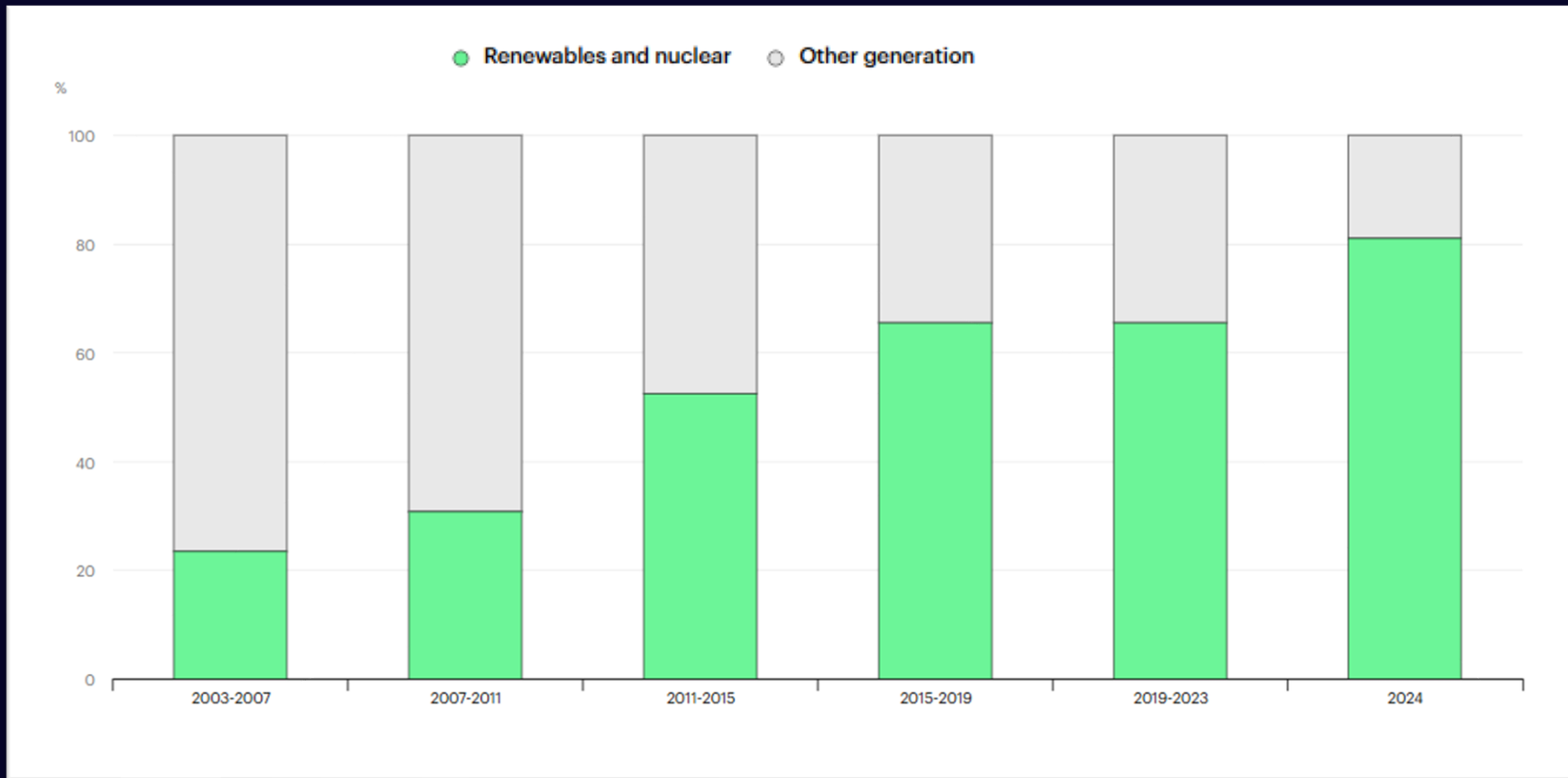


Source: IEA

# The Role of Clean Energy on the Supply Side

More than 80% of the increase in global electricity generation in 2024 came from renewables and nuclear

Share of increase in global electricity generation, 2003-2024



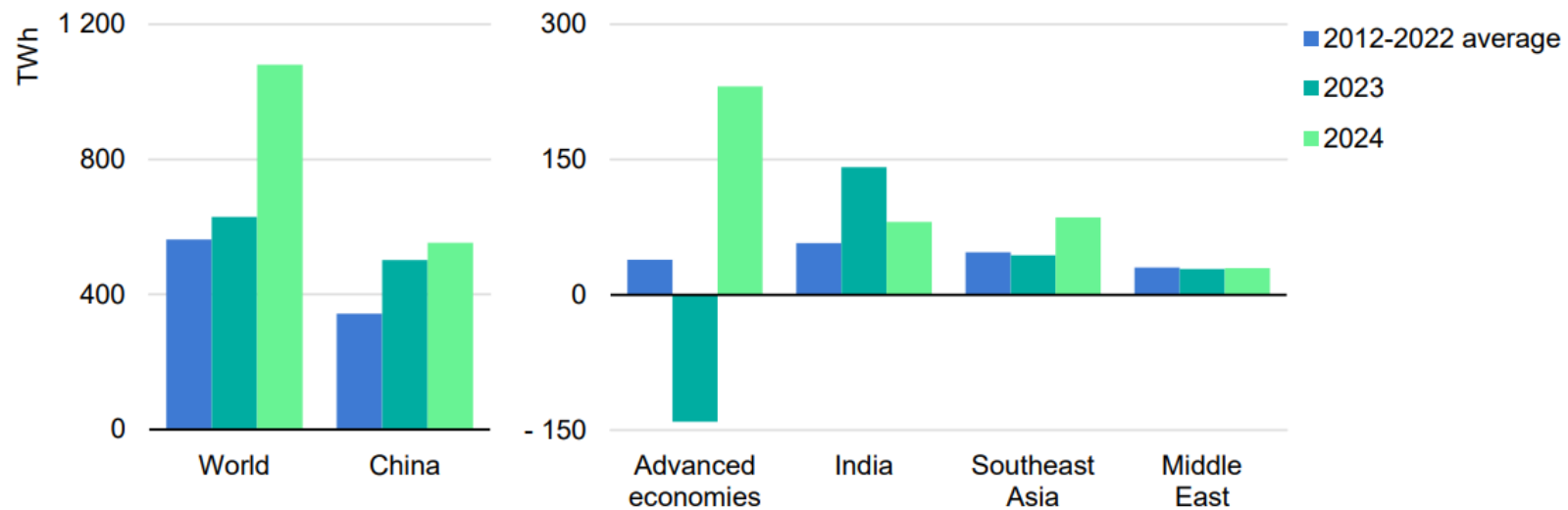
Source: IEA



# China Leads and Is Expected to Drive Global Electricity Demand Growth

In 2024, China accounted for over 50% of global electricity demand growth as its consumption increased by 7%, while other emerging economies grew by 4% and advanced economies reached a record high (IEA)

Change in total final consumption of electricity for selected regions, 2012-2024



Source: IEA

Post-2030 electrification accelerates outside China, with Europe and North America possibly reaching similar levels as China by 2050 (McKinsey)

# Electricity Demand Growth is Bifurcating: EMs Drive Volume, DMs Add New Structural Load

Emerging Markets – access and climate drive volume

- Rising living standards and improved access to electricity have driven higher demand from buildings and industry
- Cooling demand accelerates due to extreme heat, particularly in China and India

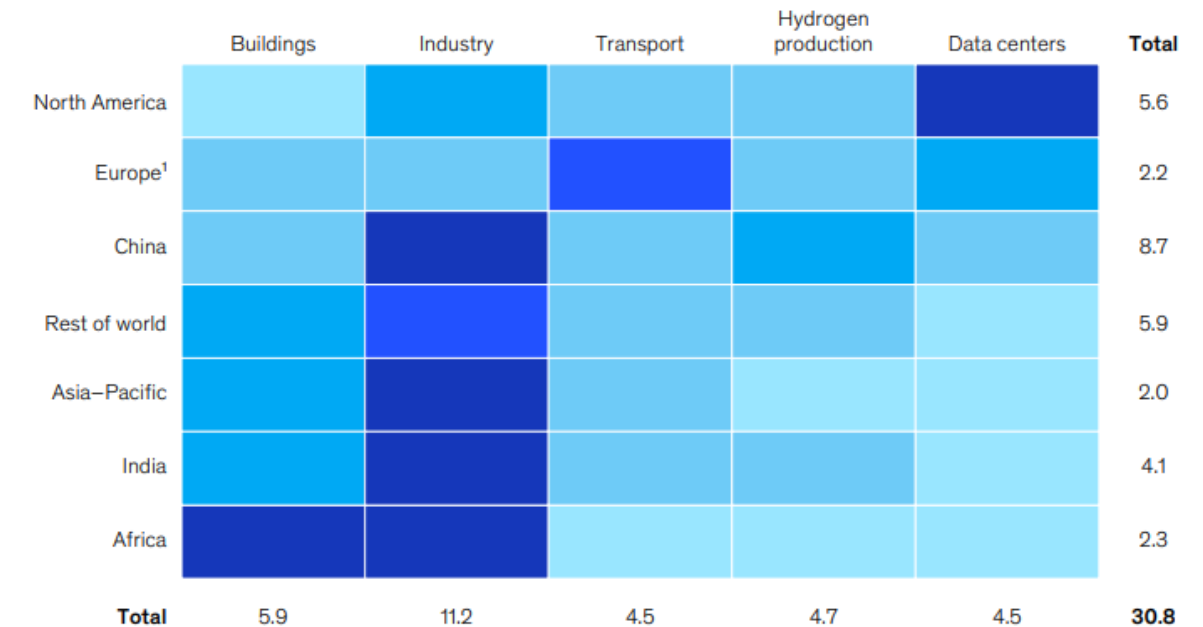
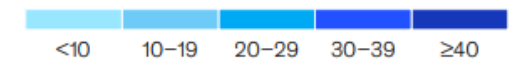
Developed Markets - new sources of demand

- Data centers become a primary incremental driver of electricity demand, led by the US
- Europe exits ~15 years of stagnation post-2024 as electrification resumes (heat pumps, EVs) alongside rising digital load

**Industry and buildings are the leading source of electricity demand growth in most regions, while in North America, data centers are the main driver.**

Global electricity consumption growth in Continued Momentum scenario, 2024–50, thousands of terawatt-hours

Relative growth of sector within region, %



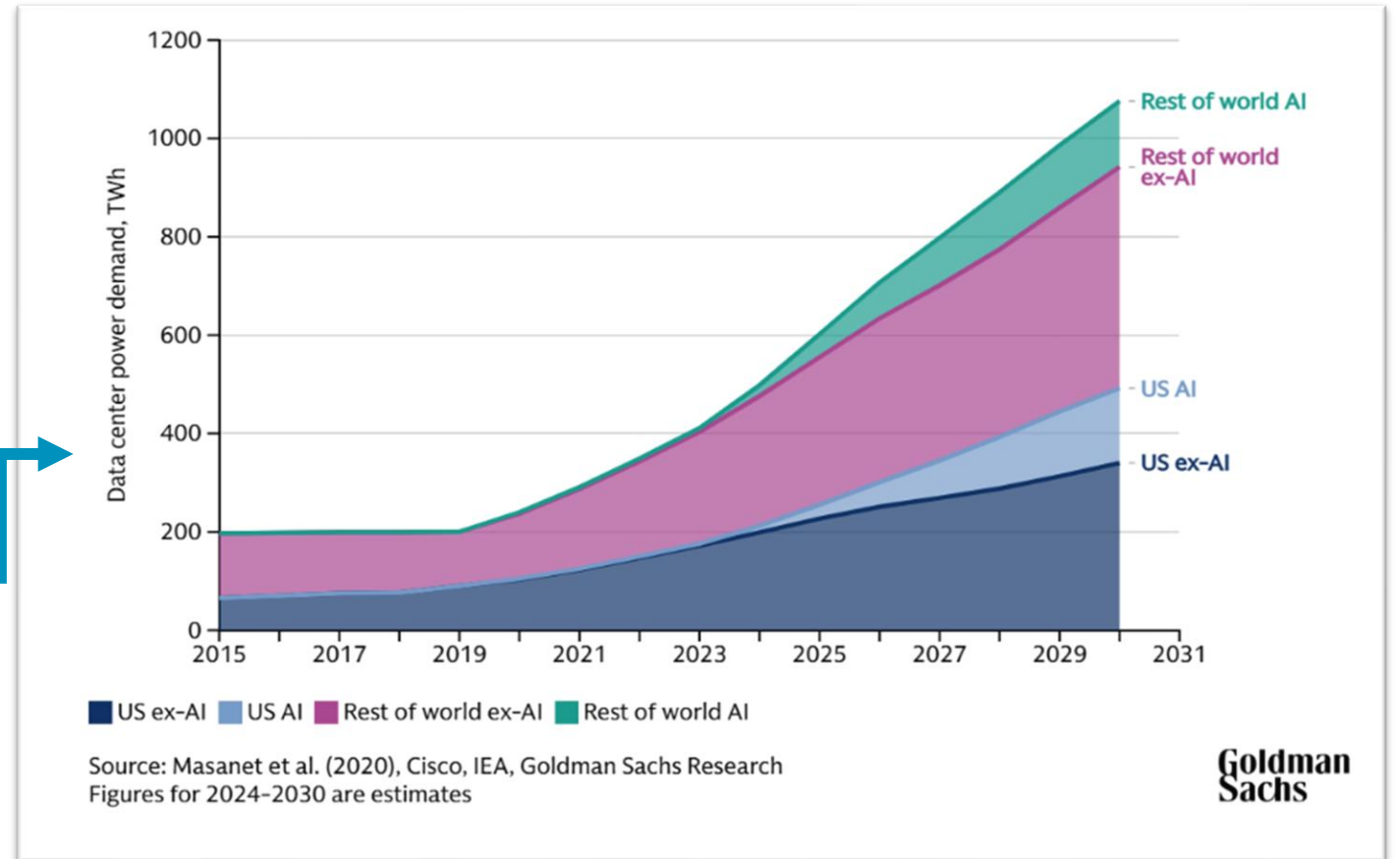
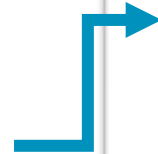
<sup>1</sup>EU-27 and UK.  
Source: Energy Solutions by McKinsey

McKinsey & Company

# AI and Data-Centers Infrastructure

A powerful demand engine raising the baseline demand the grid must serve

- The expansion of AI and data-center capacity is shifting electricity demand toward continuous, high-utilization loads requiring 24/7 reliability
- Global data-center power demand expected to increase ~160% by 2030



Continuous demand increases pressure on grid capacity, reliability, and flexibility

# The Bottleneck: A Grid Built for Yesterday

Ageing infrastructure and limited flexibility are increasing system risk as demand intensifies

US transmission power outages have become more frequent and grid reliability is worse today than in the early 2000s



Much of today's electricity infrastructure was built for a fossil-fuel era and is struggling to meet modern demands

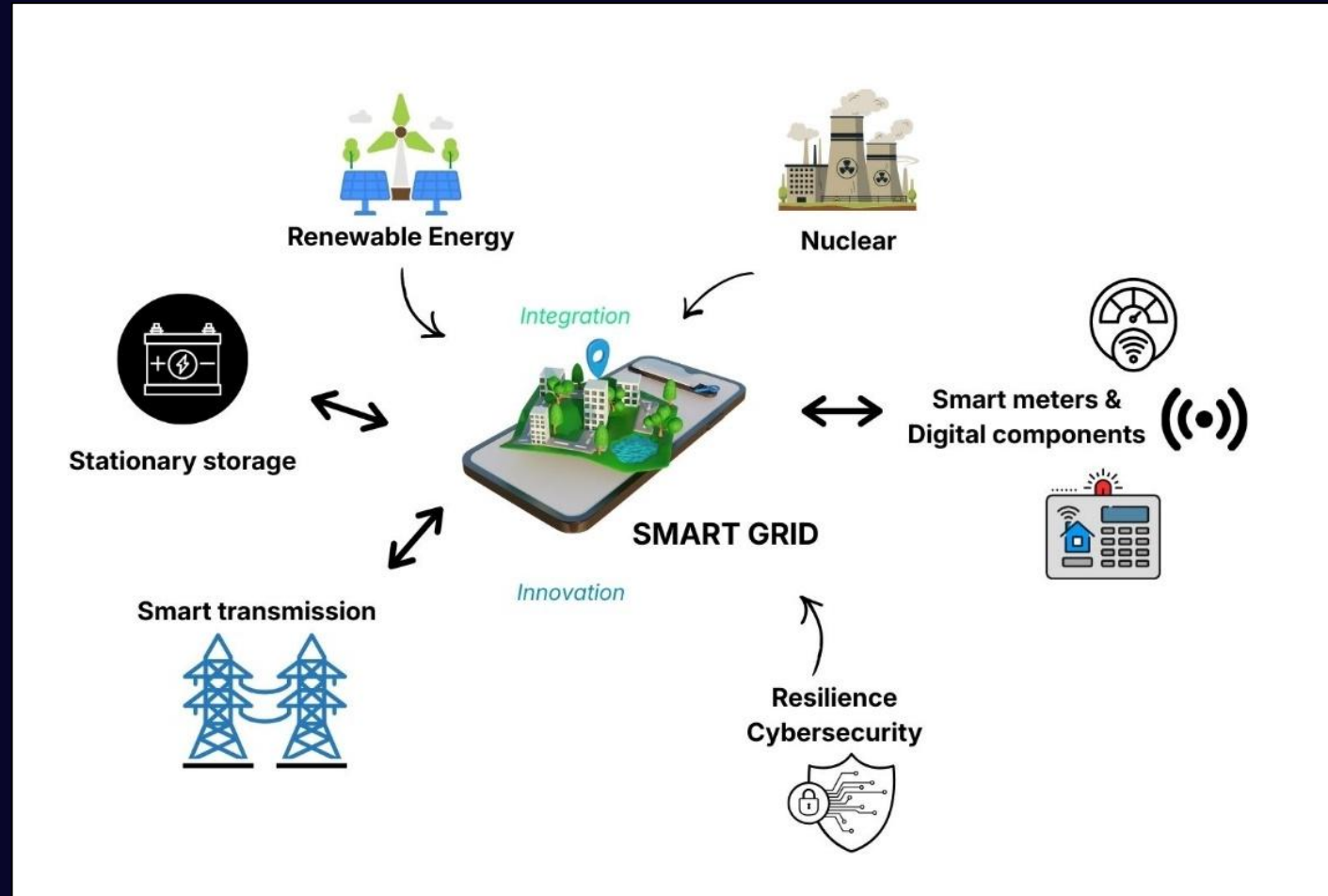
- In the U.S., over 70% of transmission lines are more than 25 years old
- in Europe, half exceed 40 years

Ageing grids are inefficient, vulnerable to blackouts and incompatible with the demands of renewables, EV charging, and digital economies

# Building the Future Energy System

Integration, intelligence, and resilience

- The grid must operate as an integrated system, coordinating generation, storage, transmission, and demand in real time
- Digital intelligence, storage, and smart transmission are essential to managing continuous demand and variable supply
- System-wide integration enables reliability, flexibility, and resilience at scale



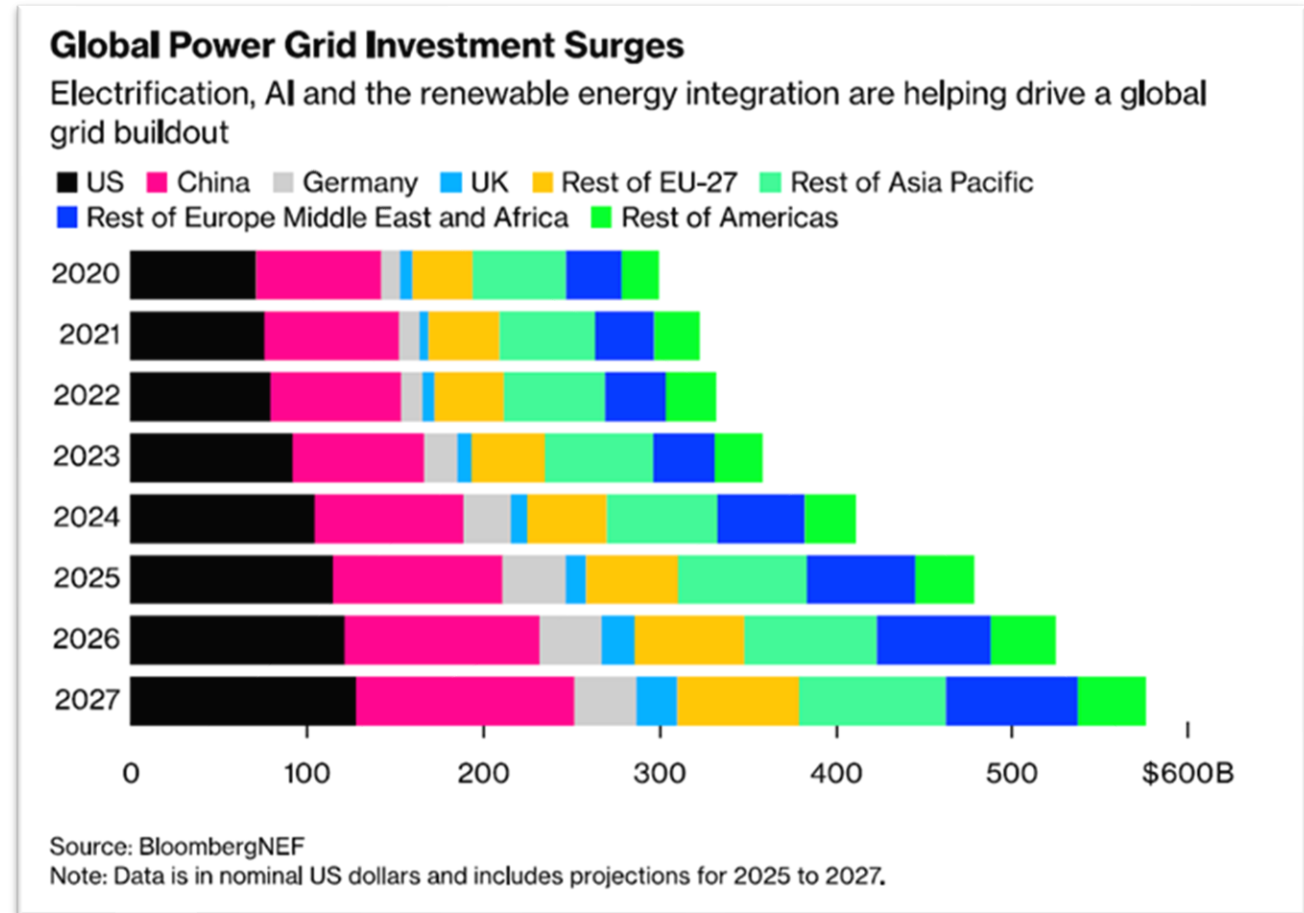
# Why Now: Policy Tailwinds and a Visible Capex Cycle

Policy is removing structural constraints

- Permitting reform and planning mandates are shortening grid project timelines
- Grid, storage, and firm low-carbon power are now treated as strategic infrastructure

The investment boom in grid modernization and energy storage

- Global grid investment is rising to \$577bn by 2027
- Global storage capacity is expected to grow ~8× by 2035, becoming a core pillar of system resilience



# The Nasdaq Global Electrification Technologies and Smart Grid™ Index (NQGETS™)

---

# Introducing the Nasdaq Global Electrification Technologies and Smart Grid™ Index (NQGETS™)

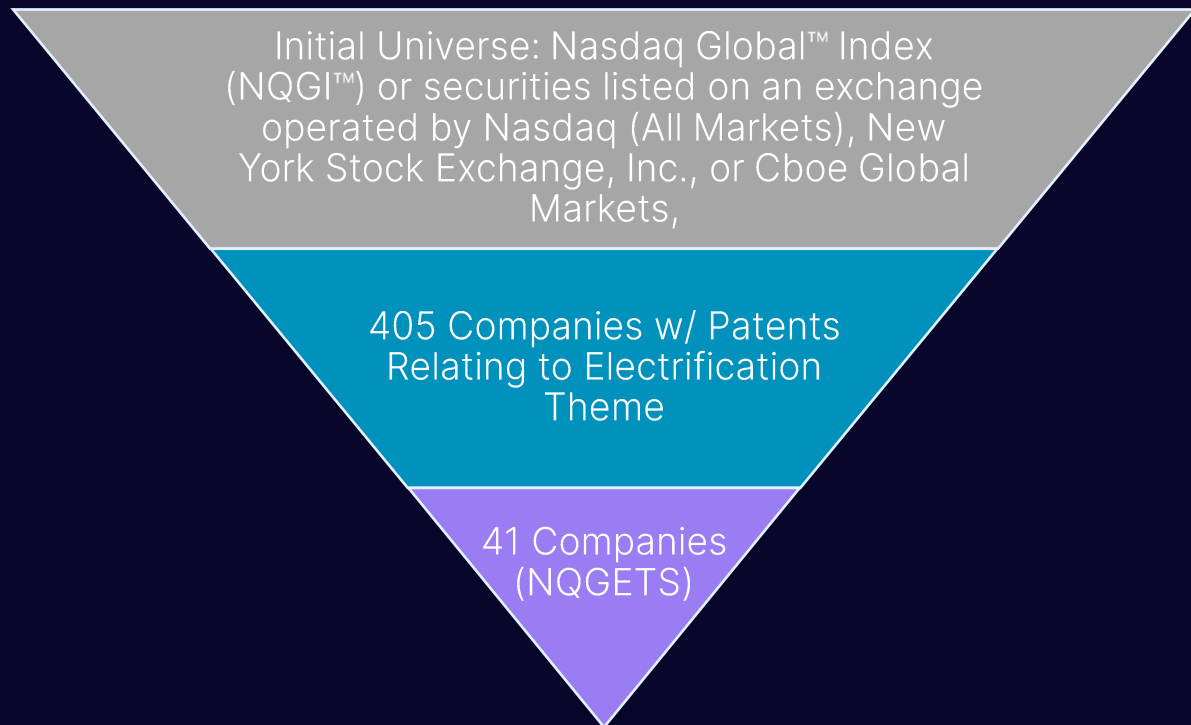
Targeted access to the electrification & grid-modernization build-out

- Exposure spans key sub-themes: Smart Grid, Smart Energy Transmission, Smart Grid Components, Smart Metering, Stationary Energy Storage, Clean Energy & Nuclear Power
- The index uses patent activity as a forward-looking signal to identify companies with strong potential for innovation within their respective sectors
- NQGETS is a modified float-adjusted market capitalization-weighted index, with a 4.5% cap
- Reconstitution and rebalancing occur semi-annually, in January and July.

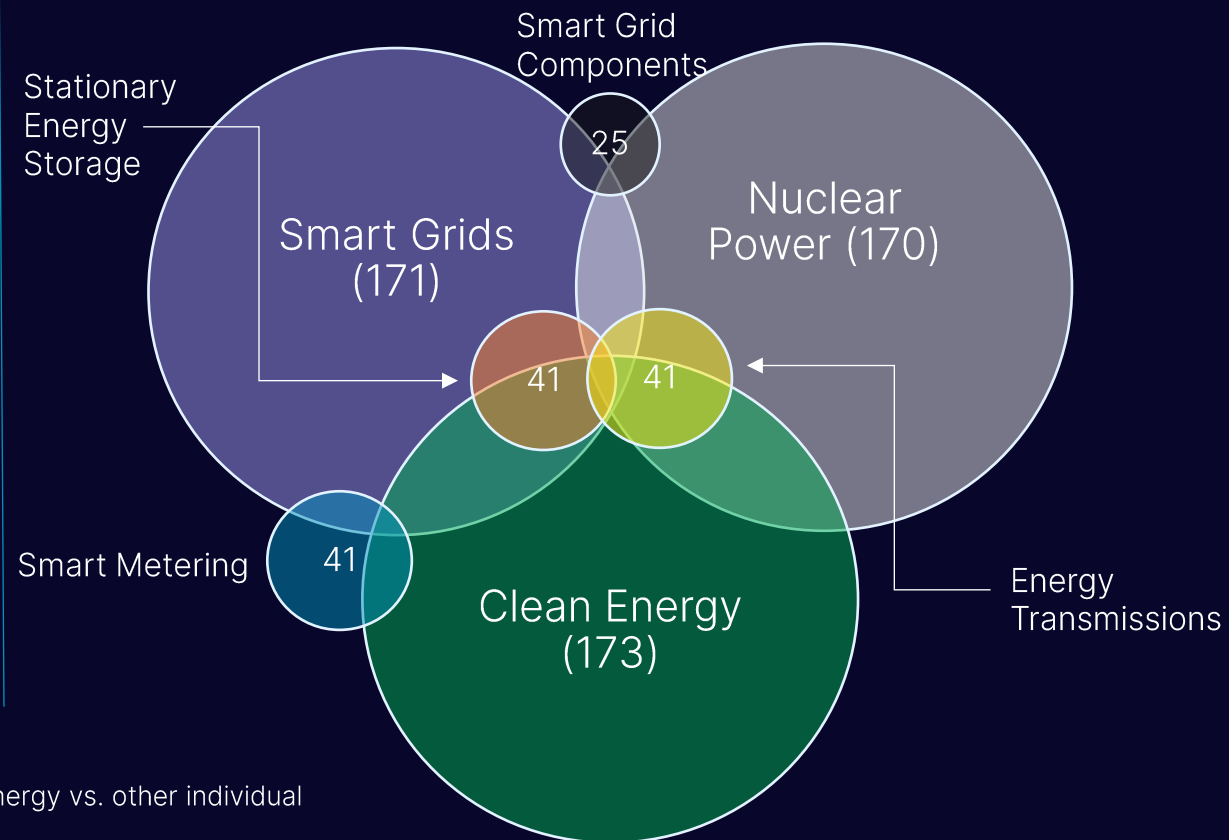
# Nasdaq Global Electrification Technologies and Smart Grid™ Index (NQGETS™)

NQGETS is designed to track the performance of companies that are most active in filing patents relating to Smart Grid, Smart Energy Transmission, Smart Grid Components, Smart Metering, Stationary Energy Storage, Clean Energy and Nuclear Power.

## NQGETS Broad Funnel



## NQGETS Eligible Constituents (405):

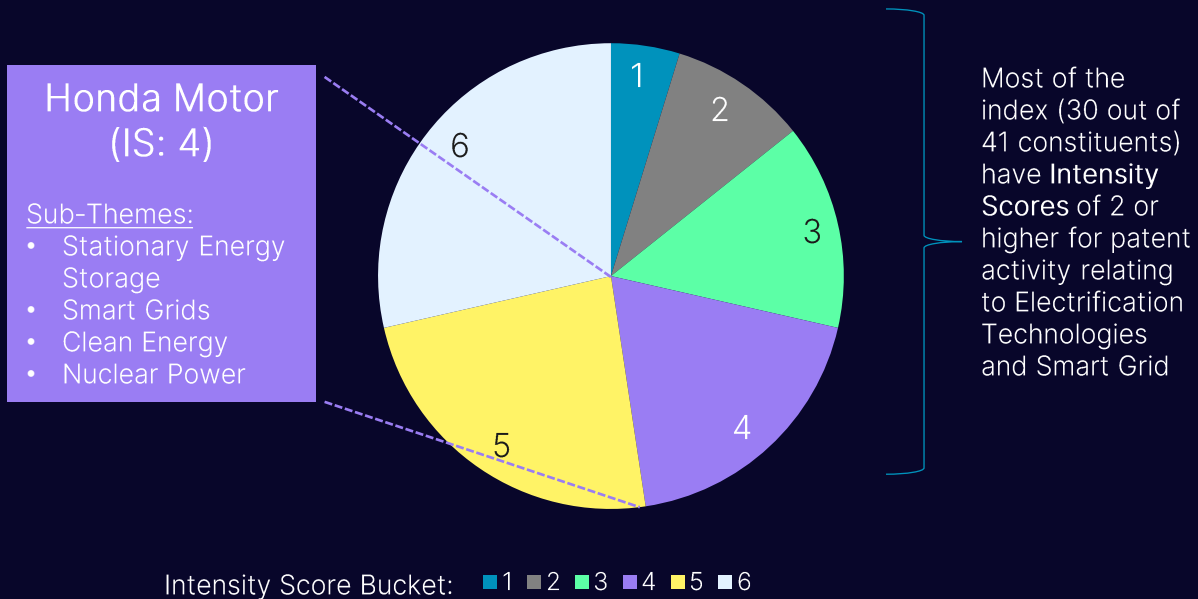


Source: Nasdaq, Patent data as of 11/28/2025. Index data as of 1/19/2026. Thematic patent overlap analysis meant to be representative of overlap levels between Clean Energy vs. other individual themes, but does not fully capture cross-thematic overlaps.

# Nasdaq Global Electrification Technologies and Smart Grid™ Index (NQGETS™)

NQGETS's universe of eligible constituents are assigned an Intensity Score, measuring the number of sub-themes (i.e. relevant technologies with patent filings) with a level of involvement (max score = 7, min = 1). Constituents are selected based on the strength of their Pure & Contribution scores (must be in the top 50<sup>th</sup> percentile to remain in the index, top 35<sup>th</sup> percentile for additions), as well as their Intensity Score. Preference is given to constituents that belong to ICB Subsectors determined as being most relevant to the theme, while also allowing a few other high-relevance, high-scoring stocks (e.g., Honda Motor) that are eligible irrespective of industry classification.

NQGETS: # of Constituents per Intensity Score (IS)

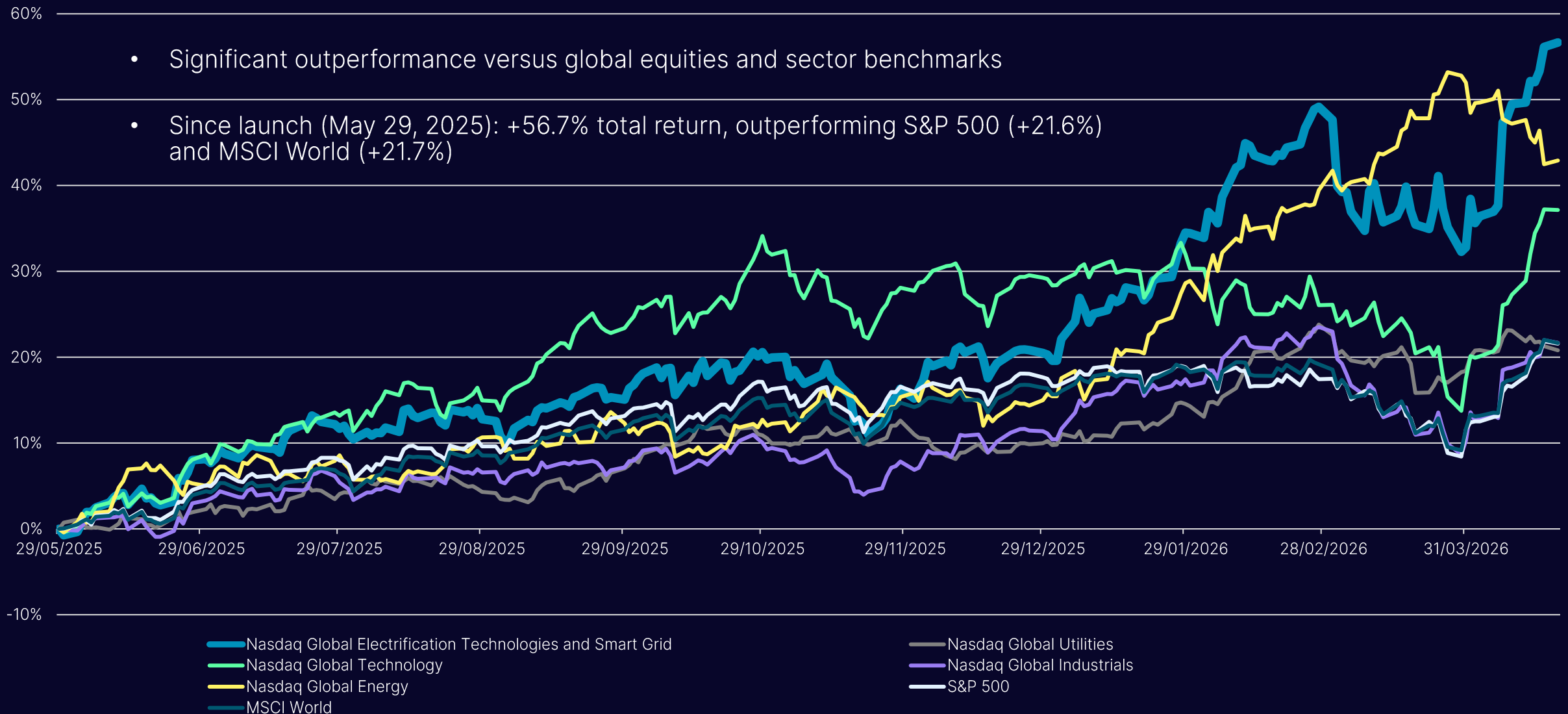


NQGETS Constituent Examples (Primary ICB Subsector):

<p><b>Mitsubishi Electric (IS: 6)</b></p> <p><u>Sub-Themes:</u></p> <ul style="list-style-type: none"> <li>• Smart Energy Transmission</li> <li>• Smart Grids</li> <li>• Stationary Energy Storage</li> <li>• Smart Metering</li> <li>• Clean Energy</li> <li>• Nuclear Power</li> </ul>	<p><b>Schneider Electric (IS: 4)</b></p> <p><u>Sub-Themes:</u></p> <ul style="list-style-type: none"> <li>• Smart Energy Transmission</li> <li>• Smart Grids</li> <li>• Smart Metering</li> <li>• Nuclear Power</li> </ul>
<p><b>Siemens Energy (IS: 3)</b></p> <p><u>Sub-Themes:</u></p> <ul style="list-style-type: none"> <li>• Smart Grids</li> <li>• Clean Energy</li> <li>• Nuclear Power</li> </ul>	<p><b>Renesas Electronics (IS: 2)</b></p> <p><u>Sub-Themes:</u></p> <ul style="list-style-type: none"> <li>• Smart Grids</li> <li>• Nuclear Power</li> </ul>

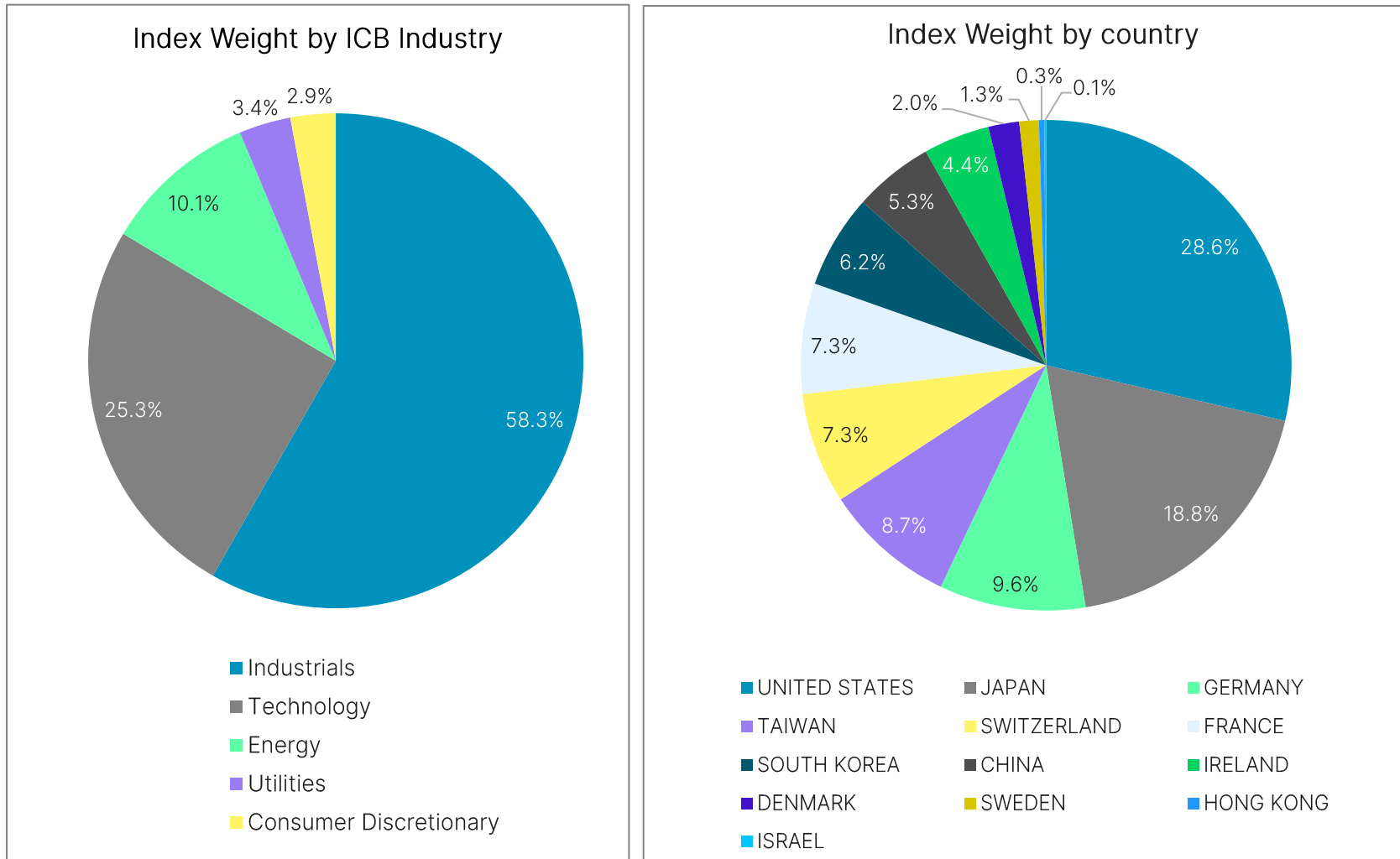


# Capturing the Electrification Theme: Index Performance



Source: Nasdaq, Bloomberg. Total return versions of each index shown. Data as of 20/04/2026

# Nasdaq Global Electrification Technologies and Smart Grid™ Index Industry & Geographic Exposure



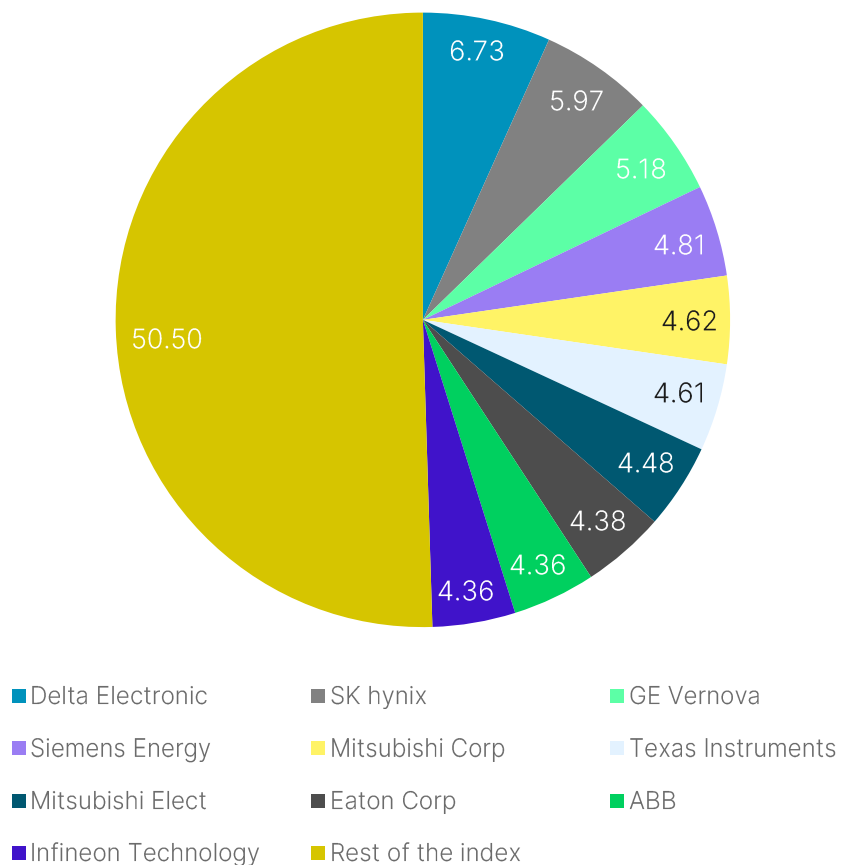
- The index has a strong developed-market tilt, U.S, Japan and Germany account for nearly two-thirds of total index weight
- Industrial and technology companies account for the majority of index exposure, aligning with current investment and innovation trends across electrification technologies.



## Index Composition

# Top 10 constituents

Top 10 Constituents Index Weight (%)



Company	2025 Return	ICB Industry	Country	Intensity Score	Sub-theme with Patent Activity
Delta Electronic	133%	Industrials	Taiwan	2	Smart Grids, Nuclear Power
SK hynix	283%	Technology	South Korea	2	Smart Grids, Stationary Energy Storage
GE Vernova	99%	Industrials	United States	3	Smart Grids, Clean Energy, Nuclear Power
Siemens Energy	171%	Energy	Germany	3	Smart Grids, Clean Energy, Nuclear Power
Mitsubishi Corp	38%	Industrials	Japan	6	Smart Energy Transmission, Smart Grids, Stationary Energy Storage, Smart Metering, Clean Energy, Nuclear Power
Texas Instruments	-7%	Technology	United States	2	Smart Grids, Clean Energy
Mitsubishi Elect	72%	Industrials	Japan	6	Smart Energy Transmission, Smart Grids, Stationary Energy Storage, Smart Metering, Clean Energy, Nuclear Power
Eaton Corp	-4%	Industrials	Ireland	2	Smart Grids, Smart Energy Transmission
ABB	38%	Industrials	Switzerland	4	Smart Energy Transmission, Smart Grids, Smart Metering, Nuclear Power
Infineon Technology	36%	Technology	Germany	1	Smart Grid

Price Returns in USD. Sub-theme with Patent Activity: refers to the sub-themes with patent activity relative to overall patent activity in the initial universe, not to the qualifying patent activity based on minimum-contribution and purity-score selection criteria.



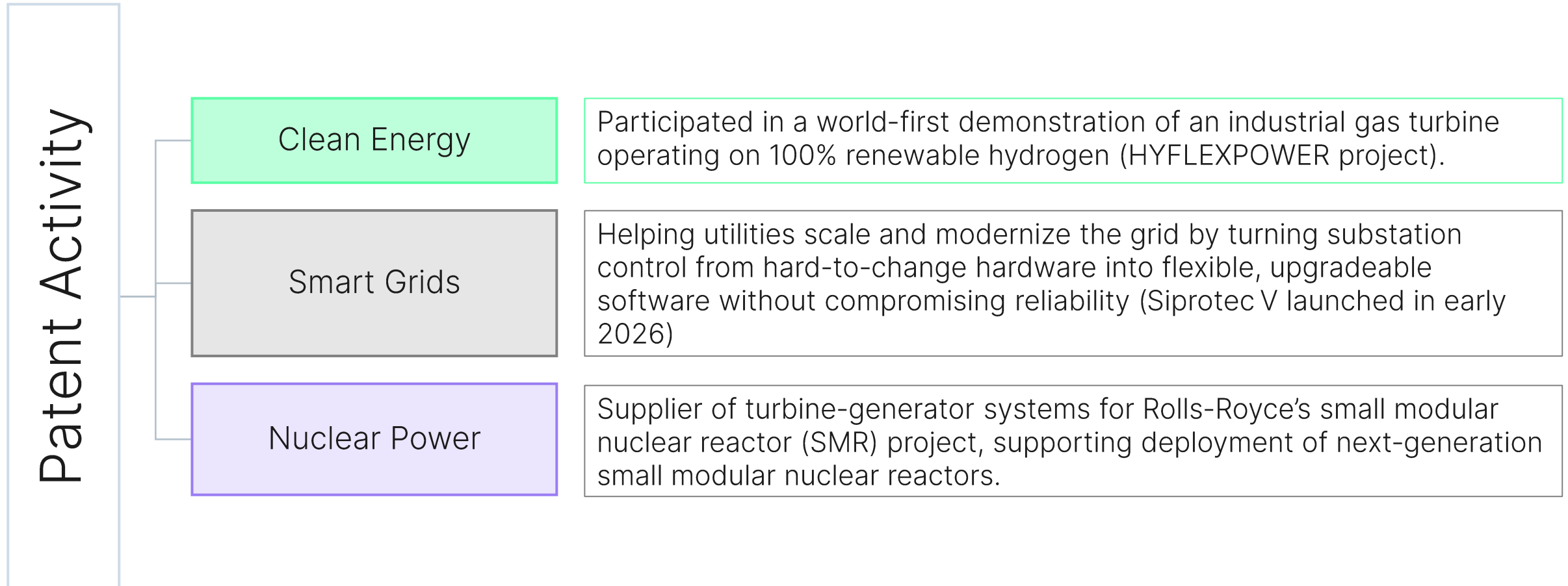
# Company Spotlight

---

## Company Spotlight - Primary

# Siemens Energy

German energy technology company focused on power generation, transmission, and decarbonization, providing solutions for gas and wind turbines, grids, hydrogen, and energy transition technologies.



## Company Spotlight - Primary

# Schneider Electric SE

A global leader in energy management and industrial automation, providing digital solutions for electrification, efficiency, and sustainability across buildings, data centers, infrastructure, and industry.

### Patent Activity

#### Smart Metering

EcoStruxure Grid Metering Operations - an end-to-end metering software suite enabling utilities to remotely manage meters, collect data and track rollout progress.

#### Smart Energy Transmissions

AirSeT - Schneider Electric's SF<sub>6</sub>-free medium-voltage switchgear, using clean air and vacuum insulation to modernize grid infrastructure by reducing emissions

#### Smart Grids

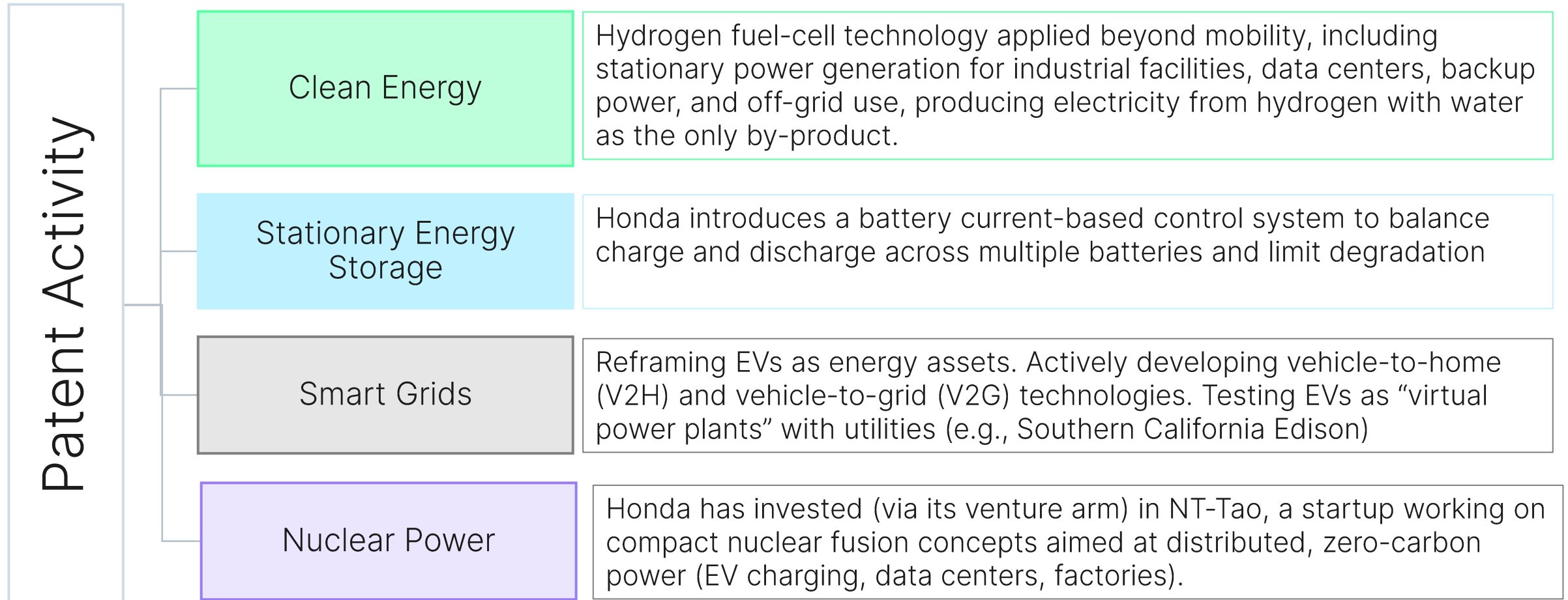
One Digital Grid Platform - an AI-enabled software layer integrating planning, operations, and asset management to accelerate utility grid modernization and resilience.

#### Nuclear Power

Schneider Electric supplies nuclear-certified automation and control systems for EDF's (France's main electricity utility) EPR2 reactor program, supporting France's next phase of nuclear power development.

# Honda Motor Co.

A global Japanese manufacturer best known for automobiles, motorcycles, and power equipment, with a strong focus on engineering efficiency, reliability, and electrification.



# Key Takeaways

1

## Structural Shift in Electricity Demand

- Electricity demand is accelerating driven by electric mobility, industrial electrification, and AI
- Growth is outpacing traditional capacity, exposing vulnerabilities in aging grid infrastructure

2

## Grid Modernization as the Critical Enabler

- Meeting rising demand requires sustained investment in smart grid technologies, advanced energy storage, and clean generation

3

## Targeted Equity Exposure via NQGETS™

- NQGETS™ provides targeted equity exposure to companies enabling grid modernization and electrification
- Patent-driven signals identify innovators early, capturing long-term structural growth

# Disclaimer

Nasdaq®, Nasdaq Global Electrification Technologies and Smart Grid™, and NQGETS™ are registered trademarks of Nasdaq, Inc. The information contained above is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. Neither Nasdaq, Inc. nor any of its affiliates makes any recommendation to buy or sell any security or any representation about the financial condition of any company. Statements regarding Nasdaq-listed companies or Nasdaq proprietary indexes are not guarantees of future performance. Actual results may differ materially from those expressed or implied. Past performance is not indicative of future results. Investors should undertake their own due diligence and carefully evaluate companies before investing. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**

*Information set forth contains forward-looking statements that involve a number of risks and uncertainties. Nasdaq cautions readers that any forward-looking information is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking information. Forward-looking statements can be identified by words such as “will,” “may”, and other words and terms of similar meaning. Such forward-looking statements include, but are not limited to, statements related to future activities and results. Forward-looking statements involve a number of risks, uncertainties or other factors beyond Nasdaq’s control. These risks and uncertainties are detailed in Nasdaq’s filings with the U.S. Securities and Exchange Commission, including its annual reports on Form 10-K and quarterly reports on Form 10-Q which are available on Nasdaq’s investor relations website at [HYPERLINK "http://ir.nasdaq.com/"http://ir.nasdaq.com](http://ir.nasdaq.com/) and the SEC’s website at [HYPERLINK "http://www.sec.gov/"www.sec.gov](http://www.sec.gov/). Nasdaq undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.*

© 2026. Nasdaq, Inc. All Rights Reserved.

