

Sector Snapshot

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# Smart Grid

Hardware and Components

ARGONAS

# Smart Grid Definition\*

- Digitalized, self-monitoring electricity network with automation, real-time control, and self-healing capabilities
- Bi-directional electricity flow & real-time data exchange between generation, storage, and consumers
- Integrates renewables, demand response, and smart devices for efficiency, reliability, and sustainability



# Sector Segmentation

**Architecture, Engineering  
and Construction**

## **Hardware and Components**

Transformers, switchgear,  
cables, smart meters,  
sensors, energy storage  
systems, inverters etc.

## **Software and IT**

Energy management systems, data analysis, demand  
response platforms, virtual power plant software etc.

**Grid Operators and Energy Suppliers**

## **Independent Service Providers**

Grid maintenance, certification services



# Market Size & Growth\*

- **Global Market:** Valued at USD 60 bn in 2024, projected to reach 289 bn in 2034 (CAGR 16.9%)
- **Main Growth Areas:** Renewable energy integration, grid automation & digitalization, electric vehicle infrastructure, energy storage
- **Regional:** North America leads the market, with rapid growth expected in Asia-Pacific due to urbanization and renewable energy adoption



# Underlying Key Drivers\*

- **Energy Efficiency & Modernization:**  
Demand for grid optimization, distributed energy resources (DERs), renewables integration & EV charging
- **Tech Advancements & Growth:**  
Integration of smart meters, sensors, AI and IoT enables real-time monitoring, and digitalized grid management
- **Investments & Government Support:**  
Policies, incentives & investments for grid modernization, e.g. U.S. Inflation Reduction Act and EU's Green Deal



# Recent Key Trends\*

- **Technological Advancements:**  
Growth in AI-driven grid optimization, demand-side management, real-time monitoring & predictive maintenance
- **Decentralization & Grid Resilience:**  
Shift towards decentralized energy production, microgrids, and resilience measures to prevent outages
- **Cybersecurity & Data Management:**  
Increased focus on protecting grid infrastructure & managing vast amounts of real-time data



# Sector Definition

- **Purpose:** Develop and deploy physical infrastructure to enhance grid reliability, efficiency & security
- **Key Customers & Applications:** Primarily utilities and grid operators using real-time monitoring, automation, and renewable energy integration
- **Products/Services:** Transformers, switchgear, cables, smart meters, sensors, energy storage systems, inverters, DER integration etc.



# Market Structure

- **Mix of Global and Niche Players:** Dominated by large hardware providers but with many specialized regional firms
- **Utility-Centric Market:** Key customers include utilities, grid operators, and energy infrastructure providers modernizing grid assets
- **Regional Influence:** Market dynamics depend on government regulations, grid investment, renewable energy adoption, and electrification trends





# Selected Key Players



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# Transaction Market

## Historical Activity:

- Quickly growing M&A interest in grid hardware, including transformers, smart meters, and energy storage, driven by energy transition investments
- North America and Europe lead transactions, with Germany gaining momentum due to policy-driven incentives (e.g., grid expansion, renewable energies, smart meter rollout)



# Transaction Market

## Key Drivers of Potential Deal Activity:

- Grid modernization needs driven by growing renewables and electrification (e.g., EV charging, decentralized energy)
- Regulations for grid reliability, efficiency & (cyber-)security boost demand for advanced components
- Capital-intensive investments drive consolidation, as smaller players seek scale and financial backing





# Transaction Market



## Outlook & Potential Opportunities:

- Consolidation expected as larger firms acquire specialized hardware suppliers for vertical integration
- Buy-and-build platforms emerging in key areas like smart metering, energy storage, and digital substations
- Cross-sector synergies with EV charging, energy storage, and IoT-driven grid management may drive strategic M&A





# Selected Deals

Sale to

20/12/24



Sale to

22/11/24 <sup>1)</sup>





Sale to

06/11/24 <sup>1)</sup>





Sale to



19/09/24





Sale to

06/06/24 <sup>1)</sup>





Sale to

03/05/24



Sale to



02/04/24





Sale to



23/10/23

ARGONAS

<sup>1)</sup> Announced, subject to approval



# Get in Touch



**Christian  
Berkhoff**

Managing Partner /  
Co-Founder

+49 (172) 99 05 977  
c.berkhoff@argonas.de



**Sascha  
Männel**

Managing Director /  
Co-Founder

+49 (173) 39 38 216  
s.maennel@argonas.de



**Maximilian  
Bechtold**

Associate

+49 (173) 29 25 948  
m.bechtold@argonas.de

**ARGONAS**