Frost & Sullivan European Smart Grid Market Overview

In the next 10 years European Smart Grid Market will Witness the Fastest Growth as Compared to Other Regions Globally

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European smart grid market revenue is expected to grow at a CAGR of 8.6% from 2015 to 2025.

Demand response will be the fastest growing segment within the European smart grid market with a 10 year growth rate of 17.6%.

European smart meter rollout is going slower than expected. The market will peak in 2021. France, the United Kingdom, Germany, and Italy will be the key countries with bulk smart meter shipments in 2025.

Distribution automation, which is a subset of distribution grid management (DGM), has strong growth opportunities with revenue growing at a CAGR of 8.2% from 2015 to 2025. Europe is the biggest distribution automation market globally and is expected to maintain its leadership position even in 2025.

Projects of common interest and the European Council target for 10% interconnection by 2020 will drive growth of HVDC and FACTS.

Source: Frost & Sullivan
Key Trends in the Future Electrical System

Generation
- New Utility Business Models
- Data-driven Utilities

Transmission
- High Voltage Technologies
- Single Market

Distribution
- Advanced Distribution Automation
- Changing Role of Distribution System Operators (DSOs)

End-users
- Demand Response
- Advanced Metering Infrastructure (AMI)

Source: Frost & Sullivan
European Smart Grid Projects – Where is the Focus in Terms of Countries and Applications?

- Smart Network Management projects accounted for 26% of the total budget.
- Germany leads the European nations in terms of the number of smart grid projects, followed by Denmark.

Source: Joint Research Center, Frost & Sullivan.
How Big Is the European Smart Grid Market and How Fast Is It Expected to Grow?

- European smart grid market is expected to grow at twice the rate from 2015 to 2020 as compared to from 2020 to 2025.

- Smart Grid includes AMI, demand response, DGM, and HV technologies.

- Although DGM occupies around 68% of the revenue, AMI and demand response are expected to grow the fastest.

Source: Frost & Sullivan analysis.
France, Switzerland, the United Kingdom, Sweden, and Belgium offer good growth opportunities for demand response. The National Grid in the United Kingdom has tied up with various aggregators to implement DR programs and recently tendered for 200 MW of fast frequency response. EDF in France offers load management to its customers and is now in the process of setting up third-party aggregators to facilitate load curtailment during peak periods.

The European substation and distribution automation market was worth close to $3.1 billion in 2015, and is expected to grow at around 8% CAGR till 2020. New technological trends include intelligent equipment that are able to perform remote monitoring and are based on wireless sensor networks (WSNs).

Cross border integration of electricity markets and growth of large scale Renewable Energy Sources (RES) are driving the growth of advanced transmission technologies (ATT). Revenue for HVDC and FACTS accounted for $2.0 billion in 2015 and is expected to reach $2.8 billion in 2020. Wireless power transmission is a ground-breaking technology which is still in the demonstration phase and if successful, could revolutionise the transmission of electricity.

AMI revenue is likely to grow at a CAGR of 12.4% from 2015 to 2025. The revenue will witness very high growth of 31% between 2015 and 2020 due to massive rollouts in the United Kingdom and France. In fact, France is expected to surpass Spain to become the largest smart meter market in Europe in 2018.
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- 50 years+ of experience
- 40+ offices worldwide ⇒ global coverage & local expertise
- Sector-based organisation ⇒ 9 divisions, including Environment
- 1,500+ employees across the globe, of which >800 consultants & analysts
Frost & Sullivan supports clients in the successful implementation of their Growth Strategies

The Growth Cycle

- **Scorecards, Ongoing monitoring, Change Management**
- **Organisational Development, Process optimisation**
- **Implementation Support & follow-through**
- **Implementation Planning, Design/Development, Rollout & Handover**

**Growth Pipeline**
- Determination of opportunity universe/prioritization
- Optimization of Strategies & Implementation
- Deep analysis of prioritized opportunities
- Translation of strategic alternatives into a cogent strategy

**Opportunity Evaluation**
- Implementation of specific plans with milestones, targets, owners, deadlines

**Go-to-Market Strategies**
- Marketing strategy; Corporate & BU strategy development
- Go to market plans: From Strategy to Actions

**Internal Capability Assessment**
- Benchmarking vs Best in Class
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- Automotive Transportation & Logistics
- Energy & Power Systems
- Environment & Building Technologies
- Healthcare
- Minerals & Mining
- Chemicals, Materials & Food
- Electronics & Security
- Industrial Automation & Process Control
Energy & Environment Group
Focus on Research ..... Driving the Thought Leadership Vision

- Power Generation
  - Central vs. DG
  - Alternative Energy
  - Regional Coal vs. Gas

- Homes & Buildings
  - Connected Living
  - Smart Buildings & IFM
  - Smart Cities

- Water
  - Smart Water
  - Security & Sustainability
  - Water & Oil

- Grids
  - Virtual Power Plants
  - Microgrids
  - Demand Response

- Resources
  - Unconventional O&G
  - Global LNG
  - Subsea

- Energy Storage
  - Renewables
  - Grid Volatility
  - Wireless Charging

- Critical Power
  - Peak Loads
  - Data Centers
  - Infrastructure

- Distributed Energy
  - Renewables
  - Back-up Power
  - Temporary Power

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