Smart Metering in Europe - 11th Edition

Description: Are you looking for detailed information and comprehensive data about the European smart metering market (electricity and gas)? Berg Insight’s analyst team has been covering smart metering continuously for more than twelve years. Now in the eleventh edition, Smart Metering in Europe is our flagship 280-page report covering AMM in EU28+2. Learn more about the EU energy policies driving the adoption of smart metering and the latest market developments in Europe.

Smart Metering in Europe is the eleventh consecutive report from Berg Insight analysing the latest developments for smart metering in Europe.

This strategic research report from Berg Insight provides you with over 280 pages of unique business intelligence, including 5-year industry forecasts, expert commentary and real-life case studies on which to base your business decisions.

Highlights from the eleventh edition of the report:

- Full coverage of the European market with in-depth market profiles of all countries in EU28+2.
- Case studies of smart electricity and gas metering projects by the leading energy groups in Europe.
- 360-degree overview of next generation standards for PLC and RF smart grid communication.
- Updated profiles of the key players in the metering industry.
- New detailed forecasts for smart electricity and gas meters in 30 countries until 2023.
- Summary of the latest developments in the European energy industry.

This report answers the following questions:

- What are the current time plans for smart meter rollouts in Europe?
- Who are the leading adopters of smart metering in Central and Eastern Europe?
- How are smart meter deployments proceeding in France, Spain and the UK?
- What are the plans for smart gas meter rollouts until 2020?
- Why are CDMA-450, long-range RF and BPL emerging as alternative communication technologies for smart meters?
- Which are the leading suppliers of smart metering solutions for the European market?
- How are ICT providers positioning themselves in the value chain?

Contents:

Executive summary

1 Electricity, gas and district heating markets in Europe
   1.1 Energy industry players
   1.2 Electricity market
   1.3 Gas market
   1.4 District heating market

2 Smart metering solutions
   2.1 Introduction to smart grids
   2.2 Smart metering
   2.2.1 Smart metering applications
   2.2.2 Smart metering infrastructure
   2.2.3 Benefits of smart metering
   2.3 Project strategies
   2.3.1 System design and sourcing
   2.3.2 Rollout and integration
   2.3.3 Implementation and operation
   2.3.4 Communicating with customers
   2.4 Regulatory issues
   2.4.1 Models for the introduction of smart meters
2.4.2 Standards and guidelines
2.4.3 Individual rights issues

3 Networks and communication technologies
3.1 Smart grid communication networks
3.1.1 Smart grid network architecture
3.1. Communication technology options
3.2 PLC technology and vendors
3.2.1 International standards organisations
3.2.2 G3-PLC
3.2.3 PRIME
3.2.4 Meters & More
3.2.5 LonWorks
3.2.6 HomeGrid
3.2.7 HomePlug
3.2.8 Semiconductor companies
3.3 RF technology and vendors
3.3.1 International standards organisations
3.3.2 Thread
3.3.3 Wi-SUN
3.3.4 ZigBee
3.3.5 Z-Wave
3.4 Cellular technology and vendors
3.4.1 2G networks
3.4.2 3G and 4G networks
3.4.3 Cellular M2M module vendors
3.5 Low power wireless technology and vendors
3.5.1 Sigfox
3.5.2 Weightless

4 Smart metering industry players
4.1 Meter vendors
4.1.1 Landis+Gyr
4.1.2 Itron
4.1.3 Elster
4.1.4 AEM
4.1.5 Aidon
4.1.6 Apator
4.1.7 Circutor
4.1.8 Diehl Metering
4.1.9 EDMI Meters
4.1.10 Elektromed
4.1.11 Elgama Elektronika
4.1.12 EMH Metering
4.1.13 Energomera
4.1.14 GE Digital Energy
4.1.15 Hager
4.1.16 Hexing Electrical
4.1.17 Iskraemeco
4.1.18 Janz
4.1.19 Kaifa Technology
4.1.20 Kamstrup
4.1.21 Linyang Electronics
4.1.22 MeterRSit
4.1.23 Mitsubishi Electric
4.1.24 Orbis
4.1.25 RIZ
4.1.26 Sagemcom
4.1.27 Sanxing Electric
4.1.28 Secure Meters
4.1.29 VIKO
4.1.30 Wasion
4.1.31 ZIV
4.1.32 ZPA Smart Energy
4.2 Smart grid networking and solution providers
4.2.1 ADD Grup
4.2.2 AP Systems
4.2.3 Connode
4.2.4 Corinex
4.2.5 Cyan Technology
4.2.6 Networked Energy Services
4.2.7 NURI Telecom
4.2.8 Ormazabal
4.2.9 Power Plus Communications
4.2.10 Sensus
4.2.11 Siemens
4.2.12 Silver Spring Networks
4.2.13 Trilliant
4.2.14 Xemex

4.3 Smart metering software and data analytics solution providers
4.3.1 C3 Energy
4.3.2 Cuculus
4.3.3 Energyworx
4.3.4 Enoro
4.3.5 Ferranti Computer Systems
4.3.6 Göráltz
4.3.7 Kisters
4.3.8 Netinium
4.3.9 Opower
4.3.10 Oracle
4.3.11 Powel
4.3.12 SAP
4.3.13 Telecontrol STM

4.4 System integrators and communication service providers
4.4.1 Arqiva
4.4.2 Atos Worldgrid
4.4.3 Capgemini
4.4.4 CGI
4.4.5 Deutsche Telekom
4.4.6 Eltel Networks
4.4.7 Ericsson
4.4.8 IBM
4.4.9 Kapsch
4.4.10 LG CNS
4.4.11 Maingate
4.4.12 Omnetric Group
4.4.13 S&T
4.4.14 Schneider Electric
4.4.15 Telefónica
4.4.16 Telekom Austria
4.4.17 TeliaSonera
4.4.18 UtilityConnect
4.4.19 Vodafone

5 Market profiles
5.1 Regional summary
5.1.1 EU smart metering policies
5.1.2 Top smart metering projects in EU28+2 countries
5.2 Austria
5.2.1 Electricity and gas distribution industry structure
5.2.2 Metering regulatory environment
5.2.3 Smart metering market developments
5.3 Belgium
5.3.1 Electricity and gas distribution industry structure
5.3.2 Metering regulatory environment and smart metering market developments
5.4 Bulgaria
5.4.1 Electricity and gas distribution industry structure
5.4.2 Metering regulatory environment and smart metering market developments
5.5 Croatia
5.6 Cyprus
5.6.1 Electricity distribution industry structure
5.6.2 Metering regulatory environment and smart metering pilots
5.7 Czech Republic
5.7.1 Electricity and gas distribution industry structure
5.7.2 Metering regulatory environment and smart metering pilots
5.8 Denmark
5.8. Electricity distribution industry structure
5.8.2 Metering regulatory environment
5.8.3 Smart metering market developments
5.9 Estonia
5.9.1 Electricity distribution industry structure
5.9.2 Metering regulatory environment and smart metering market developments
5.10 Finland
5.10.1 Electricity distribution industry structure
5.10.2 Metering regulatory environment
5.10.3 Smart metering market developments
5.11 France
5.11.1 Electricity and gas distribution industry structure
5.11.2 Nationwide program for smart electricity metering
5.11.3 Nationwide program for smart gas metering
5.12 Germany
5.12.1 Electricity and gas distribution industry structure
5.12.2 Metering regulatory environment
5.12.3 Results of the smart meter cost benefit analysis
5.12.4 National smart metering standards
5.12.5 Smart meter market developments
5.13 Greece
5.13.1 Electricity and gas distribution industry structure
5.13.2 Metering regulatory environment and smart metering pilot program
5.14 Hungary
5.14.1 Electricity and gas distribution industry structure
5.14.2 Metering regulatory environment and smart metering market developments
5.15 Ireland
5.15.1 Electricity and gas distribution industry structure
5.15.2 Nationwide program for deployment of smart meters
5.16 Italy
5.16.1 Electricity and gas distribution industry structure
5.16.2 Metering regulatory environment
5.16.3 Smart metering market developments
5.17 Latvia
5.17.1 Electricity and gas distribution industry structure
5.17.2 Metering regulatory environment and smart metering market developments
5.18 Lithuania
5.19 Luxembourg
5.19.1 Electricity and gas distribution industry structure
5.19.2 Metering regulatory environment and smart metering rollout plans
5.20 Malta
5.20.1 Utility industry structure
5.20.2 National smart grid project
5.21 Netherlands
5.21.1 Electricity and gas distribution industry structure
5.21.2 Metering regulatory environment
5.21.3 Smart metering market developments
5.22 Norway
5.22.1 Electricity distribution industry structure
5.22.2 Metering regulatory environment
5.22.3 Smart metering market developments and DSO rollout preparations
5.23 Poland
5.23.1 Electricity and gas distribution industry structure
5.23.2 Metering regulatory environment and smart metering projects
5.24 Portugal
5.24.1 Electricity and gas distribution industry structure
5.24.2 Metering regulatory environment and smart metering market developments
5.25 Romania
5.25.1 Electricity and gas distribution industry structure
5.25.2 Metering regulatory environment and smart meter market developments
5.26 Slovakia
5.26.1 Electricity and gas distribution industry structure
5.26.2 Metering regulatory environment and smart meter market developments
5.27 Slovenia
5.27. Electricity industry structure and metering regulatory environment
5.27.2 Smart metering projects
5.28 Spain
5.28.1 Electricity and gas distribution industry structure
5.28.2 Metering regulatory environment
5.28.3 Smart metering market developments
5.29 Sweden
5.29.1 Electricity distribution industry structure
5.29.2 Metering regulatory environment
5.29.3 Smart metering market developments
5.29.4 The outcome of a regulation driven rollout
5.30 Switzerland
5.30.1 Electricity distribution industry structure
5.30.2 Metering regulatory environment and smart meter market developments
5.31 United Kingdom
5.31.1 Electricity and gas industry structure
5.31.2 Metering regulatory environment
5.31.3 Great Britain's planned nationwide smart metering system
5.31.4 Early smart meter deployments
5.31.5 Smart metering in Northern Ireland and the Channel Islands

6 Case studies: Smart metering projects in Europe
6.1 Enel
6.1.1 The Telegestore project in Italy
6.1.2 New generation of smart meters and system solutions
6.1.3 Endesa's smart metering project in Spain
6.1.4 Smart meter rollout plan for Romania
6.2 ERDF
6.2.1 The Linky Programme
6.2.2 System development and large-scale pilot
6.2.3 Full-scale rollout plans
6.3 E.ON
6.3.1 Sweden: Initial experiences from a smart meter rollout
6.3.2 Spain and the UK: Complete rollouts before 2020
6.3.3 Germany and Central Europe: Pilot projects and retail propositions
6.4 Iberdrola
6.4.1 The PRIME project
6.4.2 Smart metering rollout in Spain
6.5 GrDF
6.6 Smart metering projects in the Netherlands
6.6.1 Alliander
6.6.2 Enexis
6.6.3 Stedin
6.6.4 Delta, Cogas, Rendo and Westland
6.7 The UK Smart Meter Implementation Programme
6.7.1 Arqiva's FlexNet radio solution for the North
6.7.2 Telefónica's cellular and mesh solution for the Centre and South
6.8 Germany's smart grid networking architecture
6.9 Smart metering projects in Southeast Europe
6.9.1 HEDNO's plans for a large-scale smart metering pilot in Greece
6.9.2 EPCG's smart meter rollout in Montenegro
6.9.3 Smart metering pilots in Turkey
7 Market forecasts and trends
7.1 Market trends
7.1.1 Governments initiate rollouts but rely on the industry for implementation
7.1.2 No end in sight for market fragmentation
7.1.3 Private infrastructure and broadband technology trends in networking
7.2 Smart electricity metering market forecast
7.2.1 Geographical markets
7.2.2 Capital expenditure forecast
7.2.3 Communication technology market shares
7.3 Smart gas metering market forecast
7.4 Smart metering network gateway market forecast

Glossary
Index

List of Figures
Figure 1.1: Top 25 energy companies, by turnover (EU28+2 2013)
Figure 1.2: Electricity generation and consumption data (EU27 2012)
Figure 1.3: Electricity market statistics (Europe 2014)
Figure 1.4: Top 25 electricity DSOs (EU28+2 2014)
Figure 1.5: Top 25 electricity DSOs (Southeast and East Europe 2014)
Figure 1.6: Gas market statistics (EU28+2 2013)
Figure 1.7: Top 25 gas DSOs (EU28+2 2014)
Figure 1.8: District heating market overview (EU28+2 2011)
Figure 2.1: Plug-in hybrid electric vehicle
Figure 2.2: Smart metering infrastructure
Figure 2.3: Examples of smart electricity meters
Figure 3.1: Overview of power grid infrastructure
Figure 3.2: Standard model for smart grid communication networks
Figure 3.3: Alternative model for smart grid communication networks
Figure 3.4: Technical comparison of key PLC technology standards
Figure 3.5: Members of the G3-PLC Alliance by industry
Figure 3.6: Members of the PRIME Alliance by industry
Figure 3.7: Members of the Meters & More Association by industry
Figure 3.8: Selected members of HomePlug Powerline Alliance by industry
Figure 3.9: Top 25 semiconductor companies and smart grid technology support
Figure 4.1: Energy meter vendor company data (World/Europe, FY2013/2014)
Figure 4.2: Landis+Gyr smart metering product portfolio (Europe 2014)
Figure 4.3: Itron smart metering product portfolio (Europe 2014)
Figure 4.4: Elster smart metering product portfolio (Europe 2014)
Figure 5.1: Regulatory policies for smart meter rollouts, by country (EU28+2 Q4-2014)
Figure 5.2: Top 25 smart metering projects in EU28+2 countries (Q3-2014)
Figure 5.3: Top 12 electricity and gas DSOs in Austria (2014)
Figure 5.4: Major SM projects in Austria (2014)
Figure 5.5: Electricity and gas network operators in Belgium (2014)
Figure 5.6: Electricity DSOs and smart meters under contract in Bulgaria (2014)
Figure 5.7: Top 5 DSOs in the Czech Republic (2013)
Figure 5.8: Top 10 electricity DSOs in Denmark (2014)
Figure 5.9: Major SM projects in Denmark (2014)
Figure 5.10: Smart metering projects in Estonia
Figure 5.11: Top 10 electricity DSOs in Finland (2014)
Figure 5.12: Top 25 SM contracts in Finland (2014)
Figure 5.13: Smart metering projects in France
Figure 5.14: Top 50 electricity DSOs in Germany (2014)
Figure 5.15: Top 5 DSOs in Hungary (2014)
Figure 5.16: Top 15 electricity and gas DSOs in Italy (2014)
Figure 5.17: Electricity and gas DSOs in the Netherlands (2014)
Figure 5.18: Smart electricity meter installations in the Netherlands (H1-2014)
Figure 5.19: Top 12 electricity DSOs in Norway (2014)
Figure 5.20: Top 10 full-scale SM projects in Norway (2014)
Figure 5.21: Electricity DSOs in Poland (2014)
Figure 5.22: Major smart metering projects in Poland (2014)
Figure 5.23: Top 5 DSOs in Portugal (2013)
Figure 5.24: Top 5 DSOs in Romania (2014)
Figure 5.25: Electricity DSOs in Slovenia (2013)
Figure 5.26: Major electricity and gas DSOs in Spain (2014)
Figure 5.27: Smart electricity meter installations in Spain (Q2-2014)
Figure 5.28: Top 10 electricity DSOs in Sweden (2014)
Figure 5.29: SM contracts awarded by top 10 DSOs in Sweden
Figure 5.30: SM vendor selection of medium sized DSOs in Sweden
Figure 5.31: Features of smart meters in Sweden
Figure 5.32: Communication technologies of smart meters in Sweden
Figure 5.33: Top 10 electricity DSOs in Switzerland (2014)
Figure 5.34: Electricity DSOs in the UK (2014)
Figure 5.35: Gas DSOs in the UK (2014)
Figure 5.36: Estimated electricity and gas retailer market shares in the UK (2013)
Figure 5.37: Installed base of smart energy meters in the UK (Q2-2014)
Figure 6.1: Conceptual system architecture for ERDF's smart metering system
Figure 6.2: E.ON smart metering status by country (Europe 2014)
Figure 6.3: SM contracts awarded by E.ON Sweden (2005–2007)
Figure 6.4: GrDF's smart gas metering cost benefit analysis (2013)
Figure 6.5: Smart electricity meter vendor selection by smaller Dutch DSOs
Figure 6.6: Example of smart grid networking architecture for Germany
Figure 6.7: Planned installation areas for HEDNO’s smart metering pilot
Figure 7.1: Electricity smart meter shipments and penetration rate (EU28+2 2014–2020)
Figure 7.2: Electricity smart meter shipments by country (EU28+2 2013–2020)
Figure 7.3: Electricity smart meter installed base by country (EU28+2 2013–2020)
Figure 7.4: Electricity smart metering capital expenditure forecast (EU28+2 2013–2020)
Figure 7.5: Estimated capital cost for some smart metering projects in Europe
Figure 7.6: Breakdown of costs for electricity smart metering projects in W. Europe
Figure 7.7: Smart meter shipments, by communication technology (EU28+2 2013–2020). 273
Figure 7.8: Gas smart meter installed base by country (EU28+2 2013–2020)
Figure 7.9: Gas smart meter shipments by country (EU28+2 2013–2020)
Figure 7.10: Smart metering data gateway market forecast (EU28+2 2013–2020)
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Smart Metering in Europe - 11th Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Address:</td>
<td><a href="http://www.researchandmarkets.com/reports/3049327/">http://www.researchandmarkets.com/reports/3049327/</a></td>
</tr>
<tr>
<td>Office Code:</td>
<td>SC</td>
</tr>
</tbody>
</table>

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Hard Copy (Paper Back): USD 1366 + USD 57 Shipping/Handling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electronic (PDF) - 1 - 5 Users: USD 2049</td>
</tr>
<tr>
<td></td>
<td>Electronic (PDF) - Enterprisewide: USD 4098</td>
</tr>
</tbody>
</table>

* Shipping/Handling is only charged once per order.
* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr</th>
<th>Mrs</th>
<th>Dr</th>
<th>Miss</th>
<th>Ms</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address: *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

<table>
<thead>
<tr>
<th>Account number</th>
<th>833 130 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort code</td>
<td>98-53-30</td>
</tr>
<tr>
<td>Swift code</td>
<td>ULSBIE2D</td>
</tr>
<tr>
<td>IBAN number</td>
<td>IE78ULSB98533083313083</td>
</tr>
<tr>
<td>Bank Address</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: ________________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:

(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World