

Investment in Distribution Networks

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EU energy system needs substantial investment to get fit for 2020 and beyond





Energy



Smart Grid Inventory - 2012 update



281 SG R&D projects

90 smart metering pilots and roll-outs



Who is leading the smart grids projects?



5



Encouragingly wide range of project types





Investment in Smart Metering roll-out - CBAs





Smart Meters at the Heart of Smart Grids: 6 Ways Smart Meters Benefit Consumers

1. Energy Savings	more accurate and frequent consumption data help consumers reduce their consumption and save money
2. Energy Efficiency	more detailed consumption measurements help consumers identify opportunities for energy efficiency improvements
3. Innovative Services	smart meters are indispensable for smart home solutions/home automation, reducing energy costs
4. Empowerment	switching suppliers, modifying contractual terms, etc. becomes easier, faster and cheaper
5. Sustainability	use of local renewable sources and storage potential (micro- grids), electromobility become easier
6. Distribution System Efficiency	management of the distribution systems becomes cheaper and more effective, leading to lower distribution costs



Securing Consumer Acceptance: Ensuring data protection, privacy, security

Data Protection

Data Protection Impact Assessment (DPIA) template

Data Protection Reform of Directive 95/46



Identification of BATS for smart metering systems

Cyber-Security

- Trustworthy network
- Minimum Security Measures



Demand Response: Consumer Does Not Pay But Gets Paid



Wholesale Market



Smart Meter

Retail contract



with dynamic price structures

Smart Appliances

Energy





Smart Grid solutions are available...

- 6 billion eur invested in 300 projects
- DSO involvement

...But we need more investment

- 50 B for 250 M smart meters by 2020 480 B to upgrade rest of system by 2030
- Projects of Common Interest
- Industrial Policy

Success of the roll-out depends on criteria largely decided by MS...

- Retail market competition to breed innovative solutions and lower costs
- Smart Meters functionalities (include those also benefiting consumers)

...and on Convincing the Consumer

- Ensuring Personal Data Protection
- Empowerment of consumers through Demand Response => savings

Demand Response calls for a broader retail market design



Thank You