

Smart Grid Technology Investment: Forecasts for 2010-2030

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Executive summary

Introduction

Market overview

Forecasts

Methodology and definitions

Annexes

Our forecasts cover utility spend on the intelligent systems required to make the smart grid work

Our forecasts include spend on:

- Smart meters with two-way communications capability.
- The communications and IT infrastructure required to operate smart grids.
- Distribution and substation automation.
- HAN devices supplied by utilities.
- Capitalised installation costs and the cost of professional services.

We exclude spend on:

- The power assets themselves (such as the transmission and distribution cables, power generation, energy storage equipment, and microgeneration kit).
- AMR devices that do not have two-way communications capability.
- HAN technologies by non-utilities.
- Cash incentives required to induce consumers to take advantage of home energy networks.
- Smart grid appliances (such as automated white goods).
- PHEV charging infrastructures.

Forecast data series

Capex

- Smart meters
- Communications systems
- Distribution automation
- Substation automation
- IT systems and hardware, split by:
 - Infrastructure management systems
 - Billing and customer care systems
 - Storage, servers, and hardware
 - Other IT
- Home area networking
- Consulting and systems integration
- Other (including project management and capitalised customer communications)

Opex

- Meter maintenance
- Communications maintenance
- Distribution and substation automation
- Communications services (payment for capacity and traffic)
- IT maintenance
- Ongoing service management (customer services, marketing, etc.)