

Smart Metering

Munich, September 2016

Smart-Metering: Strategic options on assuring suppliers competitive edge

Data

- Profile information (single, family)
- Contract data
- Consumption data
- Online survey for voluntary additional data

Pricing

- Internal price versus (visible) external exchange price
- fair price
- 15 Minute price
- Price for consumption and supply

Billing

- Price separation
- Energy price
- Network charges and others

Cash Management

- Adjusted customer payment profile
- (no flat payments with annual correction)

IT

- Make or Buy
- Process integration
- Managed Service
- Database Perf.
- Cryptographic Perf.

Analytics (for supplier)

- Peer Group Comparison
- Customer Profiles
- Willingness to change supplier
- Data Mining
- Reporting

Legal & Acceptance

- Data protection
- Customer Knowledge on transmitted data

Sales

- Integration into CRM systems
- Improving sales success

Customer interface

Website & Mobile App

- Consumption data
- Price data
- Analytics for customer

Remote house control

Smart Home Connectivity

- Remote house control
- Remote consumption / heating control

Consumption suggestion and booking

- Consumption suggestion based on price / (renewable) supply / demand prediction
- Consumption booking on day ahead price

Asset optimization

- Integration into supply / demand prognosis
- Frequency of analysis

Installation

- Smart meter selection / interoperability
- Physical smart meter installation & maintenance
- Operator status for smart meters or use of service providers

Data collection

- Data collection process
- Data import frequency

Time to market

Supplier margin



Smart-Metering: Core reference

Design of architecture for, development of extensions for and initial configuration of a database for the energy data management system on the basis of kdb+ with variable data granularity for the electricity network operator of a Canadian province including the integration of data from **4,8 Mln. Smart Meters**, with an annual power consumption of app. **140 TWh**.

Building a **market database infrastructure** for a major European energy trader

- Development and deployment of a market database infrastructure for market data and derived data for commodities, fx, interest rates and energy
- Data capture and storage of approx. 200 external data feeds and additional internal feeds
- Implementation of a data-hub on the basis of time series requirements
- Design and development of quality control processes for raw data and derived data covering all instruments and data types
- Ensure data compliance with vendors and consumers
- Provide a central data-hub for multiple locations

Design and Development of an Execution Framework for **Forward Curves**

- Design and implementation of an execution framework for commodity forward curves to improve time to market
- Implement architecture and a Matlab toolbox for commodity Forward Curve calculations

Further possibilities of optimization

The adjustments to processes and IT infrastructure that are needed to implement smart metering may be taken further and also cover topics that may be refined, e.g.:

- Pricing – Support and Implementation of Real-Time Pricing
- Optimisation of BI („Business Integration“) – Systems
- Optimisation of demand prognosis
- etc.



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