

A faint, blue-tinted background image of a high-voltage power line tower, viewed from a low angle looking up. The tower is a lattice structure with multiple cross-arms.

Jonathan Elmer  
CEO, Ampy UK



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# Ampy



- Sales US\$100 million pa
- 700 Employees
- Leading worldwide supplier of electronic electricity meters
  - Market Leader in UK (40%) and Australia (65%)
  - Operations in UK, China, Australia & New Zealand
- Annual volume 1.7 million meters
- Rapid growth over last five years: Ampy UK has trebled volumes
- Recently acquired by Bayard Energy



# Bayard

- Australian based company intending to invest up to US\$ 500 million
- Buy to build strategy: looking for businesses with long term growth potential
- Environmental aspect to investment criteria for long term growth: totally committed to “smart” metering concept
- Bayard bought Ampy in 2003 and has recently announced the acquisition of Landis + Gyr, the world’s largest electricity meter business



A faded, blue-tinted image of a high-voltage power transmission tower, also known as a pylon, stretching from the bottom left towards the top right of the slide. The tower's lattice structure is clearly visible against a light, hazy background.

# Ampy's Experience



# Enel project

- Worlds largest AMR project.
- 24 million single phase, 3 million polyphase meters
- PLC based system for electricity meters with data concentrator at LV sub-station.
- Mainly GSM communications from sub-station back to Enel
- USD 2.2 billion investment
- 19 million meters installed, full two-way management under way



# Enel project – Ampy's role

- Ampy developed single phase meter + family of three phase meters
- Third parties supplied PLC chip-set and data concentrators (Echelon, Kaifa)
- Enel developed in-house software for internal processes
- Meters manufactured by third party manufacturers for lowest product cost (with help from Ampy!)
- Ampy remains involved to support the project during roll-out
- A team approach to deliver a tailored solution to Enel



# Enel project

- Why did Enel choose to work with Ampy?
  - Previous experience of plc systems
  - Proven design / design for manufacture ability
    - Mass volume
    - High functionality
    - Cost effective
  - Business model based around sub-contract manufacturers as the most effective supply chain





# Enel: reasons for the project

- Four year payback on USD 2.2 billion investment
- Drivers:
  - Cost reductions:
    - automation of data collection: accurate bills
    - change of contracts, tariffs
    - remote connection / disconnection
  - Customer service
    - bill accuracy
    - resolution of queries
    - better tariffing
  - Revenue protection
    - fraud prevention
    - meter accuracy
  - Network monitoring

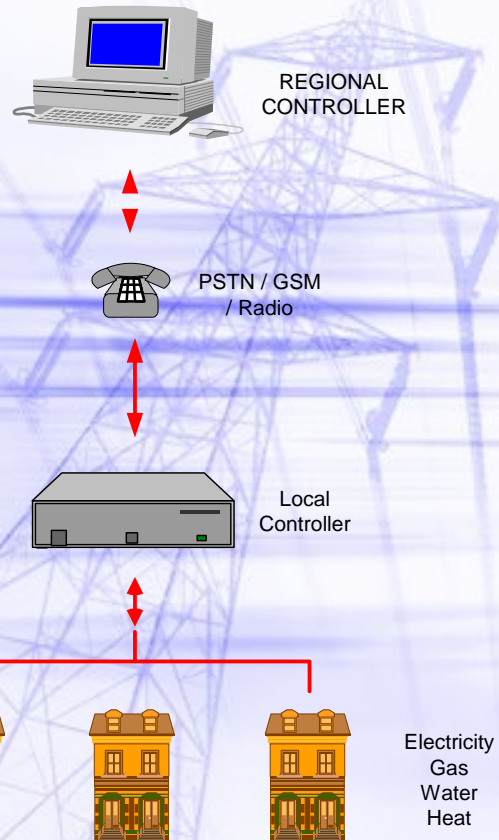


A faded, blue-tinted image of a high-voltage power line tower, serving as the background for the slide.

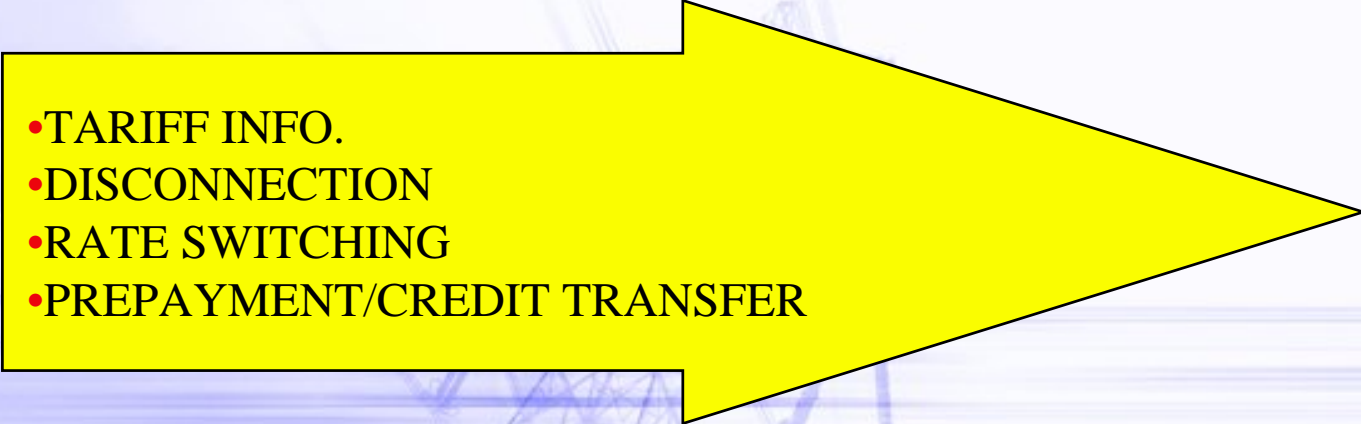
# MAINSTALK



## Remote Metering System

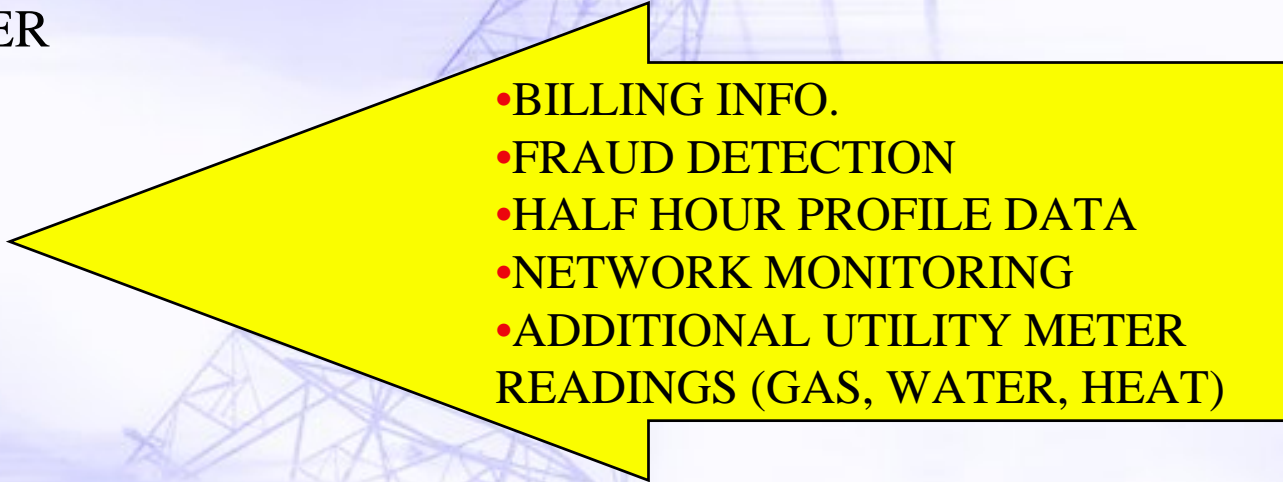


# WHAT DOES *MAINS* *TALK*<sup>TM</sup> PROVIDE?

- 
- A large yellow arrow pointing from left to right, containing a list of services provided to the customer.
- TARIFF INFO.
  - DISCONNECTION
  - RATE SWITCHING
  - PREPAYMENT/CREDIT TRANSFER

ELECTRICITY  
SUPPLIER

CUSTOMER

- 
- A large yellow arrow pointing from right to left, containing a list of services provided to the electricity supplier.
- BILLING INFO.
  - FRAUD DETECTION
  - HALF HOUR PROFILE DATA
  - NETWORK MONITORING
  - ADDITIONAL UTILITY METER READINGS (GAS, WATER, HEAT)




# Mainstalk experience

- About 50,000 units installed
- Recent contract signed for small European utility for complete roll-out
- Benefits:
  - Similar to Enel!
  - Other utility metering inputs (gas, water, heat)
  - Meter mapping: greater visibility of the installed base



# Demand response: a trial in Australia

- **1 November 2004 start with Country Energy**
  - **Voluntary participation of customers**
  - **Trial to include:**
    - advanced metering and communications technologies (SMS messaging and PLC)
    - innovative tariffs
    - 'in-house displays' to provide customers with real-time information about their consumption and costs.
  - **Testing customer response to price signals that reflect system costs**
    - Lower off-peak rates, higher on-peak rates, additional 'critical peak' rates occasionally
  - **Tariffs structured so...**
    - utility remains 'whole' financially
    - customers who respond to price signals will be better off financially than now
  - **In-House Display**
    - Real-time provision of consumption and price figures on electricity
    - Equipped to communicate other environmental attributes like water, gas, greenhouse
- 
- A decorative horizontal line of ten red circles at the bottom of the slide.

A faded, blue-tinted image of a high-voltage power transmission tower (pylon) with multiple cross-arms and insulators, set against a light, hazy sky. The tower is the central focus of the background.

# Ampy Metering

