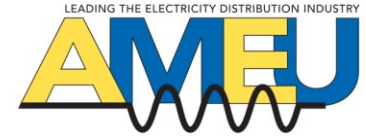


# THE EVOLUTION OF PRE-PAID METERING AND LOAD CONTROL SYSTEMS

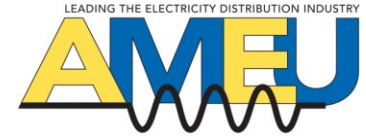
Author & Presenter:  
Andy Stoner, Landis+Gyr (Pty) Ltd

# INTRODUCTION



- HISTORICAL BACKGROUND
  - *PREPAID – 20 YEARS*
  - *LOAD MANAGEMENT – 50 YEARS+*
- GLOBAL ENERGY CRISIS
  - *COST INCREASES*
  - *NON-RENEWABLE RESOURCES*
- LOCAL CAPACITY CONSTRAINTS

# CONSUMER NEEDS



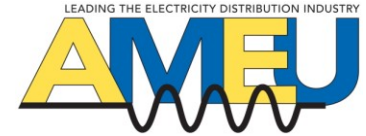
- BATHO PELE! (people first)
- CONSUMER EXPECTATIONS
  - *MAXIMUM CONVENIENCE*
  - *MINIMUM HASSLE*
- COST MANAGEMENT
  - *SEE*
  - *CONTROL*
  - *MONITOR*

# UTILITY NEEDS



- CONSUMER BUY-IN
- MINIMAL ACCESS TO PREMISES
- KEEP OVERALL SOLUTION COSTS DOWN
- PRESERVATION OF EXISTING INVESTMENT
- LOAD MANAGEMENT
  - *RECURRING*
  - *EMERGENCY*
- THEFT REDUCTION

# STANDARDISATION



- DRIVERS – THE NEED FOR:
  - *CO-EXISTENCE*
  - *COMPATIBILITY*
  - *INTER-OPERABILITY*
  - *CONFORMANCE ASSURANCE*
  - *LEGISLATIVE FRAMEWORK*
  - *EQUAL TREATMENT*
- WHERE DOES THE STS FIT IN?

# TECHNOLOGY & SOLUTIONS I



- CONVERGENCE

  - *AMI, STS, LMS – NRS049*

- ADVANCED MULTIPART SYSTEMS

  - *IEC62055-32*

- BIDIRECTIONAL vs UNIDIRECTIONAL COMMS

  - *TRUE “SMART METERS” = BIDIRECTIONAL*

  - *SIMPLER MODELS = UNIDIRECTIONAL*

- SUBSCRIBED SERVICE LEVELS

# TECHNOLOGY & SOLUTIONS II



- LOAD MANAGEMENT
  - CENTRALISED*
  - DISTRIBUTED*
  - CONSUMER MANAGED*
- METER OPERATING MODE SELECTION
- COMMUNICATION TECHNOLOGIES
  - NON-REALTIME: PHYSICAL CARRIERS*
  - POWERLINE, VARIOUS R.F.*

# TRUSTED PARTNERSHIPS



- COMPLEXITY AND SOPHISTICATION
- COLLABORATION
  - *IN IT FOR THE LONG-TERM*
  - *NOT ANTI-COMPETITIVE*
- EDF/ERDF PILOT IN FRANCE
  - *FOUR SUPPLIER / PARTNERS*
  - *300,000 METER PILOT*
  - *35,000,000 METER ROLLOUT*



# CONCLUSION



- CONSUMERS

- *HAVE RIGHTS AND NEEDS*

- UTILITIES

- *CUSTOMER FOCUS, COSTS, TECHNICAL NEEDS*

- STANDARDISATION

- TECHNOLOGIES AND SOLUTIONS

- TRUSTED PARTNERSHIPS