THE EVOLUTION OF PRE-PAID METERING AND LOAD CONTROL SYSTEMS

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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

- CONVERGENCE
  - AMI, STS, LMS – NRS049
- ADVANCED MULTIPART SYSTEMS
  - IEC62055-32
- BIDIRECTIONAL vs UNIDIRECTIONAL COMMS
  - TRUE “SMART METERS” = BIDIRECTIONAL
  - SIMPLER MODELS = UNIDIRECTIONAL
- SUBSCRIBED SERVICE LEVELS
• 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