

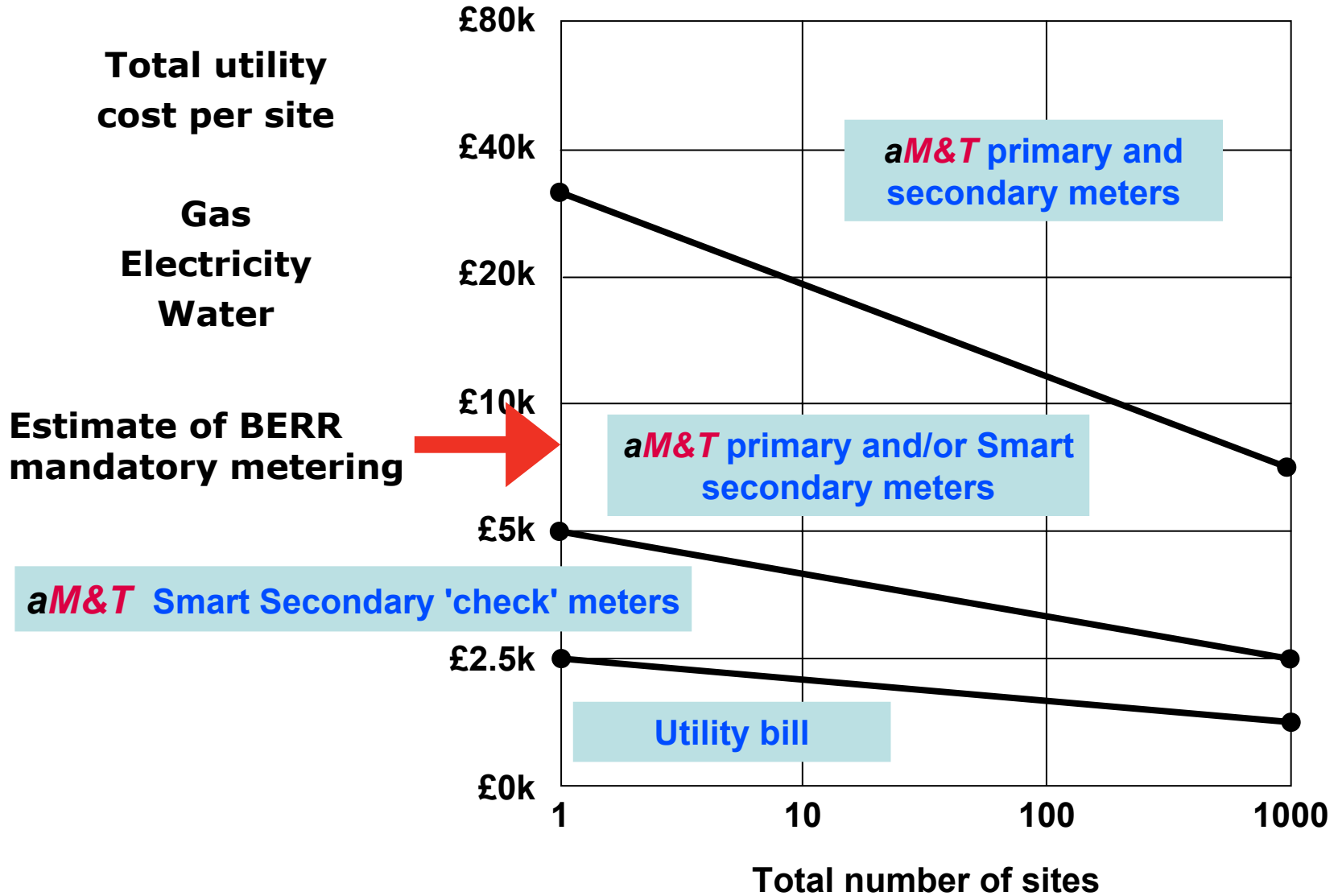
**The Cost ?**

**The Benefit ?**

**Kris Szajdzicki  
Chairman**

**ND Metering Solutions  
Bradford**

- ▶ **Smart Meters**  
**An Energy Management Tool**
- ▶ **Large Organisation**  
**Energy Management System**
- ▶ **Small Organisation**  
**Smart Meter**
- ▶ **Smart Meter**  
**Smart Energy Management System**

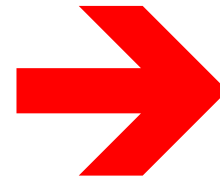


## ***What is a Smart Meter***



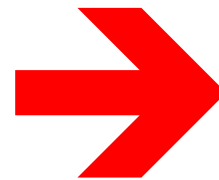
***A Meter that helps with energy management***  
***A Really Useful Meter***

*What can happen over 20 Years ?*



***Free Market  
Innovation  
Benefits at the Right Price***

## *What can happen over 20 Years ?*



***Centralised / Controlled Market  
Static***

## Free Market

- ▶ **Competitive Products  
Innovation**
- ▶ **Price Competition  
Prices Drop**

**Consumer Orientated**

## Controlled / Centralised Market

- ▶ **No Competition  
Static Product**
- ▶ **Cost based pricing  
Prices tend to rise**

**Supplier Orientated**

▶ **For a Smart Meter to work:**

- ▶ Cost effective
- ▶ Simple to install - Retro-fit
- ▶ Use a standard method of communications
- ▶ Provide simple & easily understandable information
- ▶ Provide timely information
- ▶ Require minimum time involvement
- ▶ Be accurate

▶ **Also**

- ▶ Be immediate
- ▶ Be responsive to change
- ▶ No special software
- ▶ Provide access to further information
- ▶ Open ownership (Bottom-up; not Top-down)

## Utility Based Solution

- ▶ **Carbon Trust**  
Advanced Metering for SMEs
- ▶ Supplied by your utility
- ▶ Standard Specification
- ▶ Data supplied by appointed contractor
- ▶ Fixed 30 minute profiles
- ▶ Tested at ~ 500 sites
- ▶ Estimated life of ~ 15 years

## Sub-Metering Solution

- ▶ **Independently Developed**  
By SMEs for SMEs
- ▶ Choice of supplier
- ▶ Choice of Specification
- ▶ Data directly available
- ▶ Selectable profile interval
- ▶ Tested at ~ 200+ sites
- ▶ Replace / Upgrade at will

## Utility Based Solution

- ▶ Tied to Utility rules
- ▶ Fixed Solution
- ▶ Fixed interval
- ▶ Delayed data
- ▶ Stranded Technology
- ▶ Electricity (Gas & Water option)
- ▶ Limited Access

### ▶ **Estimated Costs**

- ▶ Installation      £ 561 / £ 164
- ▶ Service            £ 242 / £ 20

## Sub-Metering Solution

- ▶ Independent
- ▶ Flexible Solution
- ▶ Variable interval
- ▶ Immediate data (Real-time)
- ▶ Upgradeable
- ▶ Electricity (Gas & Water option)
- ▶ Open Access

### ▶ **Estimated Costs**

- ▶ Installation      £ 600 - £750 / £ 175
- ▶ Service            £ 25 / £ 10

## Utility Based Solution

- ▶ New Electricity Meter
- ▶ Gas & Water Meters monitoring option
- ▶ Communications – Phone or GSM

## Then

- ▶ Daily / Weekly Reports
- ▶ On your own

## Cost Implications

- ▶ Meter & Installation
- ▶ Communications & Data Access
- ▶ Software Licence
- ▶ Service

## Sub-Metering Solution

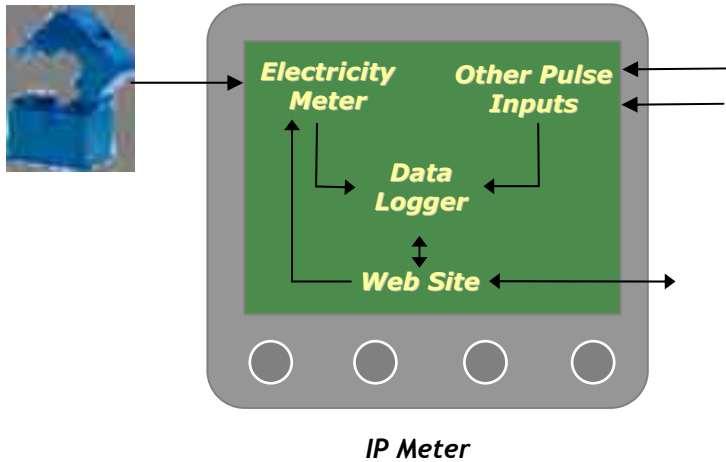
- ▶ Electricity sub-Meter – Retro-fit option
- ▶ Gas & Water Meter monitoring option
- ▶ Communications – plug into LAN

### Then

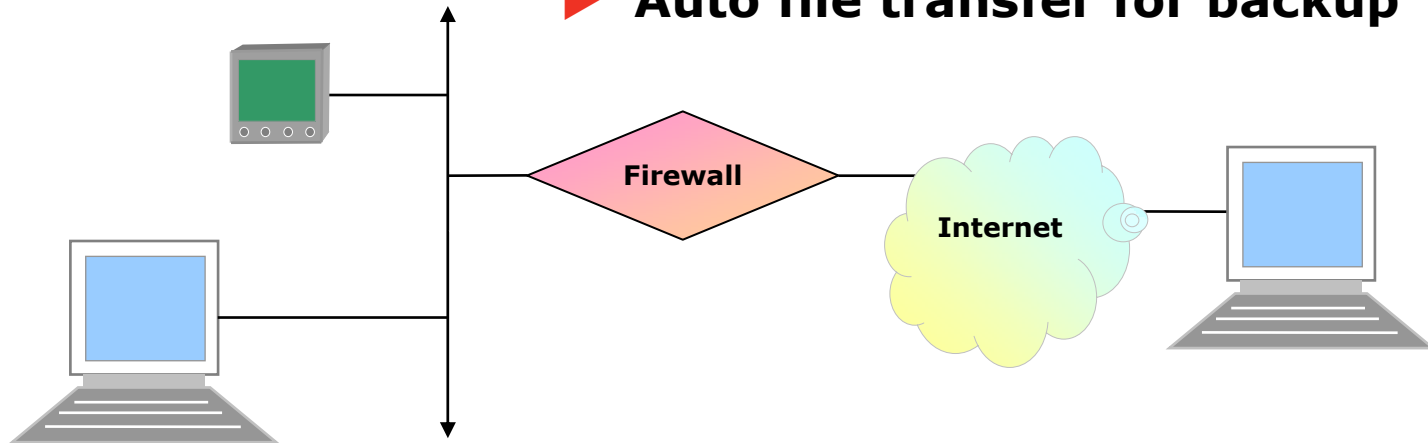
- ▶ Real-time & Historic Reports
- ▶ Web links for help

### Cost Implications

- ▶ Meter & Installation
- ▶ Free Communications – Intranet
- ▶ Free Software – Web browser
- ▶ Service costs – Optional Upgrades



- ▶ **Meter** (Retro-fit or Standard)
- ▶ **Split current sensors or CTs**
- ▶ **Optional Gas / Water Inputs**
- ▶ **Logger**
- ▶ **Software**
- ▶ **Optional Alarms**
- ▶ **CAT5 connection to the Network**
- ▶ **Auto file transfer for backup**





- ▶ **Cost Effective**  
From £ 600 installed
- ▶ **Easy Installation**  
Designed for Retro-fit
- ▶ **Standard Communications**  
Intranet
- ▶ **Timely Information**  
Real Time data
- ▶ **Accurate**  
Class 1 – No guesswork
- ▶ **Easy to Understand**
- ▶ **Minimum Time involvement**



## Easy to Understand



- ▶ **Historic Data**
- ▶ **Energy Profiles**
- ▶ **Simple Displays**
- ▶ **Real time Graphs**
- ▶ **Readily available help**

## All at the click of a Mouse



## Minimum Time Involvement



▶ **Readings at a glance**  
**When you have the time**

- ▶ **Historic Profile**
- ▶ **What is happening now**
- ▶ **Help**
- ▶ **At the click of your mouse**

**When you have the time**

## Test Sites include



- ▶ **A local bakery**
- ▶ **A pub in Otley**
- ▶ **NE Manufacturer**
- ▶ **Dubai Airport**

- ▶ Really Smart Meters
- ▶ Smart Sub-Metering Solution
- ▶ Smart Energy Management
- ▶ Smart Savings



**Thank you**

**Kris Szajdzicki**

**ND Metering Solutions**

