



EA Technology

Smart Metering Seminar

17 January 2007

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❖ Energy supplier viewpoints

- Where have we come from?
- Where are we today?
- Where are we going?
- Real-time Displays
- Future Technology

❖ Where have we come from?

- AMR through half-hourly and pre-payment metering
- Different drivers for smart metering abroad (Blue Tariff, Italy, USA)
- No business case in UK
- EU beginning to legislate
- Northern Ireland keypad expansion
- SME market: niche, customer driven, new players emerging
- Carbon Trust leading way on (business) energy efficiency promotion
- Technology trials by most energy suppliers, some through DTI/CT
- PLC trials incomplete
- Elexon introduced COPs 8, 9 and 10 (import/export, comms)
- Ofgem strategy since March 2001 - to facilitate innovative metering within a competitive environment, but regulatory barriers remain

❖ Where are we today?

- Catalyst – Ofgem paper Feb 06 – Domestic Metering Innovation
‘Concerns about reducing greenhouse gas emissions, maintaining security of supply and tackling fuel poverty are at the top of the political agenda. Smarter, more innovative energy meters may be able to help tackle all three challenges.’
- Focus now on mass market, not just B2B/PP/SME
- Marketing of Customer Display Units – Defra taken in by this as alternative to smart metering
- Emergence of potential national Smart Meter Asset Providers
- Emergence of new manufacturers of smart meters
- Supply Licence Review and Metering Price Controls Review
- Association of Meter Operators Smart Metering Forum for
- Gas smart metering developments
- Defra considering EEC 3&4 refinements



❖ Where are we today?

- Energy price rises
- DTI Energy Review July 06
- Measuring Instruments Directive
- Energy Services Directive
- B&Q launch wind turbines
- Debate on rebundling metering back into Distribution business
- Business case refinement
- Supplier set up smart metering projects
- Supplier recognition of TAHI Open Architecture (TOA)
- Ofgem set up Metering Interoperability Steering Group
- Suppliers Requirements for Smart Metering Projects



❖ Where are we going?

- ERA SRSM smart metering specifications baselined end January
- Ofgem Energy Reduction Pilots on customer behaviour change
- New GB and EU standards e.g. TOA at CENELEC
- Home Gateways & new technologies on the market
- Broadband expansion, greater IT storage capacity
- Distribution Networks becoming involved
- Tenders for metering systems
- Greater consumer awareness of energy efficiency
- DTI consultation on Metering & Billing
- Energy White Paper
- Supply Licence Review



❖ Where are we going?

SRSM Phase 2 (which needs Ofgem sanction) may look at:

- Model business case items
- Updated meter specifications
- Updated data definitions
- Smart Metering System Solution(s)
- Communication solution(s)
- Business process definition
- Interoperability standards/architecture
- Implementation/roll-out options
- Commercial framework
- Governance principles



❖ Real-time displays

- Several available today (Electrisave £80, Current Cost £30, Logica etc)
- Provide instant consumption and energy cost
- Customer fits with current clamp, or installer visit
- User friendly and clear displays
- May show gas, water, electricity
- Costs vary widely (no mass orders yet)
- Meets mass market
- Proven abroad
- Defra think that quick rollout is the answer



❖ Real-time displays - questions

- But who pays and is there a business case?
- How useful are they really e.g. no history to interrogate?
- How many do you need at home?
- How long do they last?
- How long would they be used regularly?
- How long do they need to use it to have an EE effect?
- How do they work for gas?
- Do they have any relationship with accurate billing?
- What problems do they have for customer/installation/delivery?
- Are they safe?
- Have Supplier trials shown them to be effective?
- Would customer queries increase?
- Limited research on what customers want/can use?



❖ Smart metering real-time

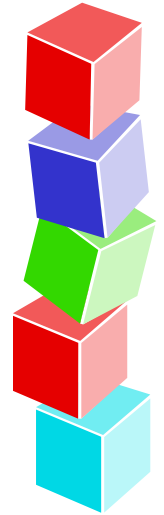
- Why pay to rollout basic devices then smart meters?
- Why not Smart Metering real displays?
- Wealth of accurate real-time information to any media
- Automate for real energy efficiency savings
- Focussed customer controls systems
- Real customer engagement
- Promotion of value-added services
- Mirrors billing data – no discrepancies



❖ Can we future proof for new technology?

A device the size of a sugar cube

Prof Nigel Shadbolt, president of the British Computer Society and professor of artificial intelligence at the University of Southampton, said "In 20 years' time it will be possible to record high quality digital video of an entire lifetime of human memories. It's not a question of whether it will happen; it's already happening" Dec 06.

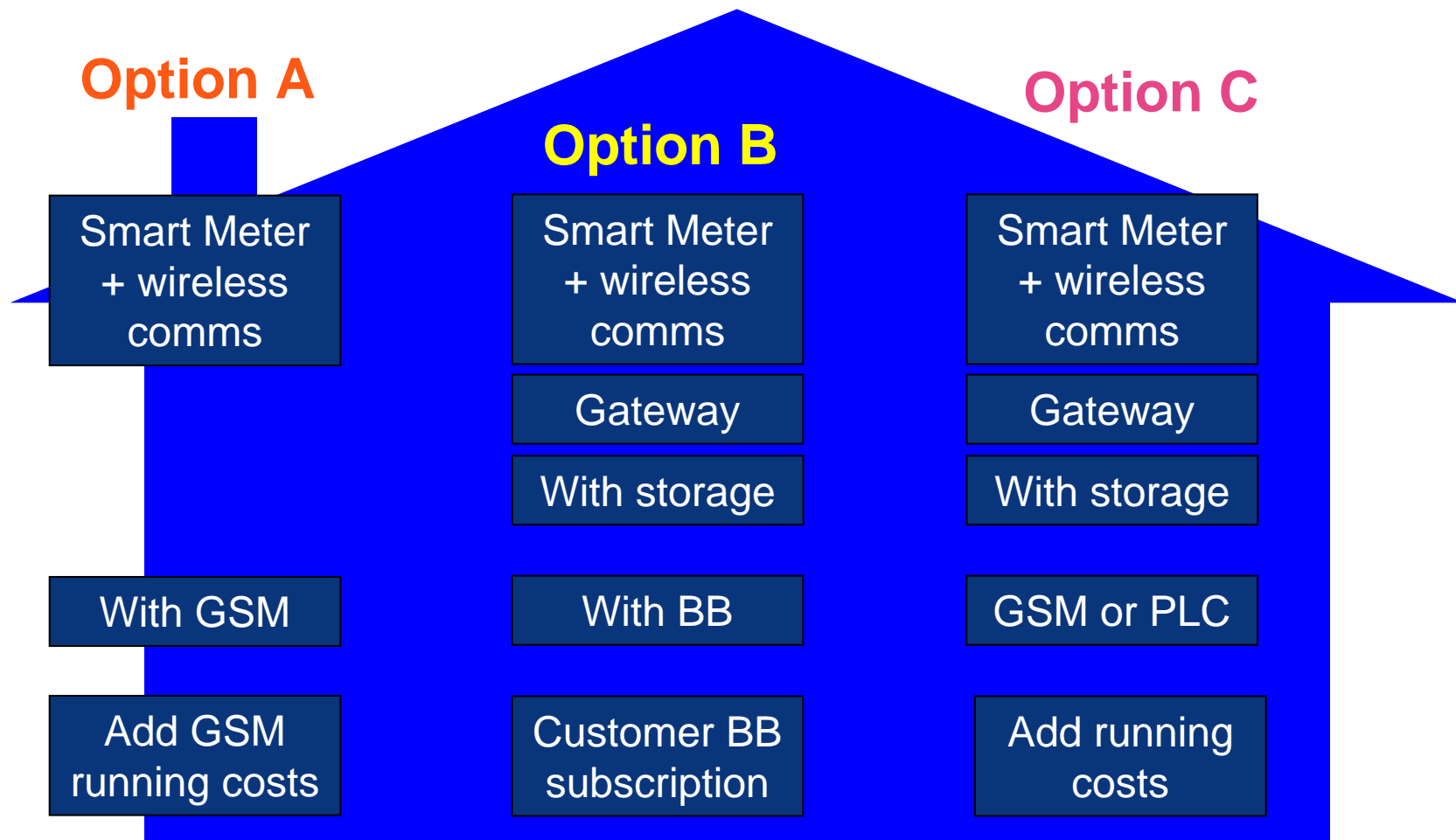


Slingbox lets people watch and control their home television from anywhere in the world from a PC or laptop, connects a TV's output to the internet over a broadband connection.

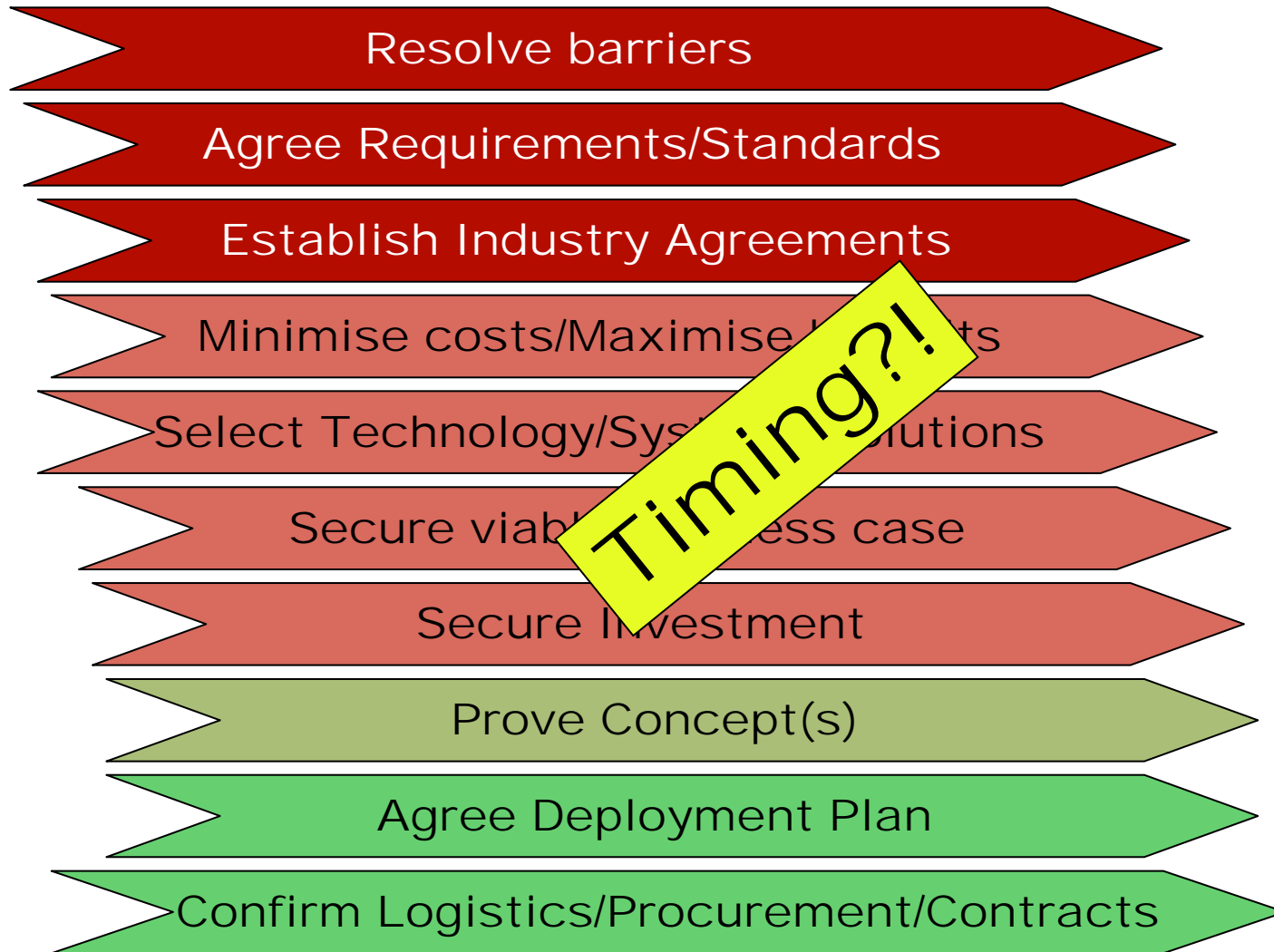
Telly phone

Mobile phone owners can also use Slingbox in the same way. Customers can browse the internet and make free Skype internet phone calls using the service.

Smart meter in-home examples



Deployment Decisions



❖ Summary

- Suppliers working together towards agreed objectives
- Real-time devices are a short term costly fix
- Smart metering systems are being defined
- Operational issues must be identified early and built into supplier/operator requirements
- A paradigm shift in industry and customer attitudes can be achieved – but needs commitment by many
- Future proofing needs to be catered for and the future with smart metering will be **very** different
- Smart metering will start to roll out within 2-3 years



THANK YOU





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