

Heat10 Conference

2nd December 2010

Smart Meter Roll-Out Logistics

Terry Rowbury

Director of Energy & Installation

BEAMA technology sectors

Fossil Fuels



Nuclear



Renewables



BEAMA Products – Transmission

- High & medium voltage transformers
- Switchgear
- Distribution systems
- Protective gear and relays
- Street lighting

Transformers



TRANSMISSION NETWORK

Sub Stations



Total generation losses 60%

BEAMA Products – Generation

- Super critical boilers
- Carbon capture and storage
- Efficient steam turbines
- Efficient auxiliary plant

BEAMA Products – Building Services

- Metering and controls
- Heating and ventilation appliances
- Lighting
- Installation equipment
- Commercial catering equipment



Offices

Factories

Houses

PFC

PFC – Power Factor Correction

Losses from transmission and distribution 16%

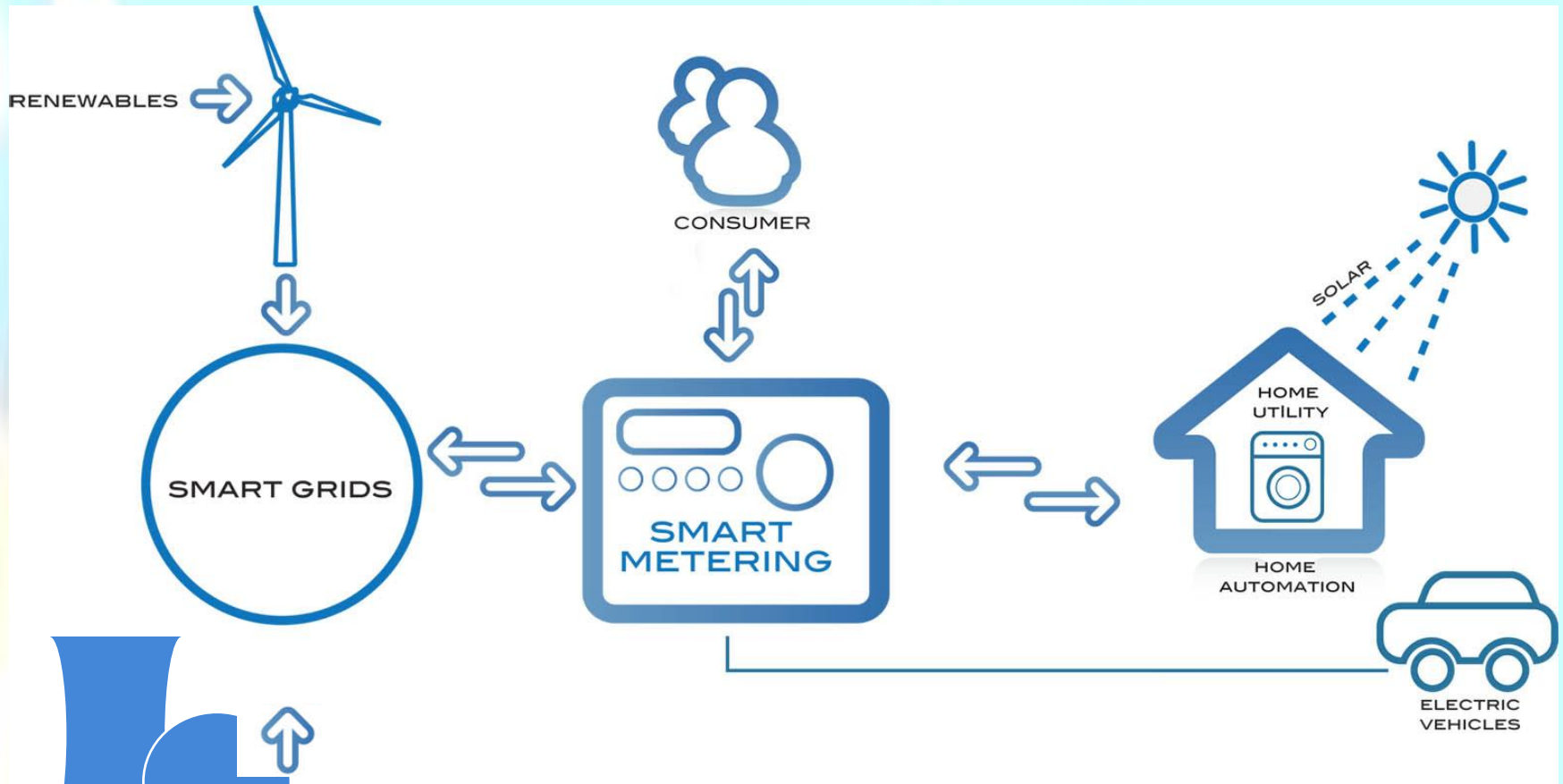


2050 Pathways Analysis

Common themes

- Ongoing need for fossil fuel in energy mix, role unclear dependant on range of issue including CCS
- **Ambitious per capita energy reduction is needed**
- **A substantial level of electrification of Heating, Transport and Industry**
- **Electricity supply may need to double, and will need to be decarbonised**

... ENABLING A SMARTER ENERGY WORLD



Smart Meter Roll-Out

- 47 million smart meters installed by 2020 (*or before?*)
- Prospectus published in July this year
- Development of new communications architecture



Smart Meter Roll-Out =

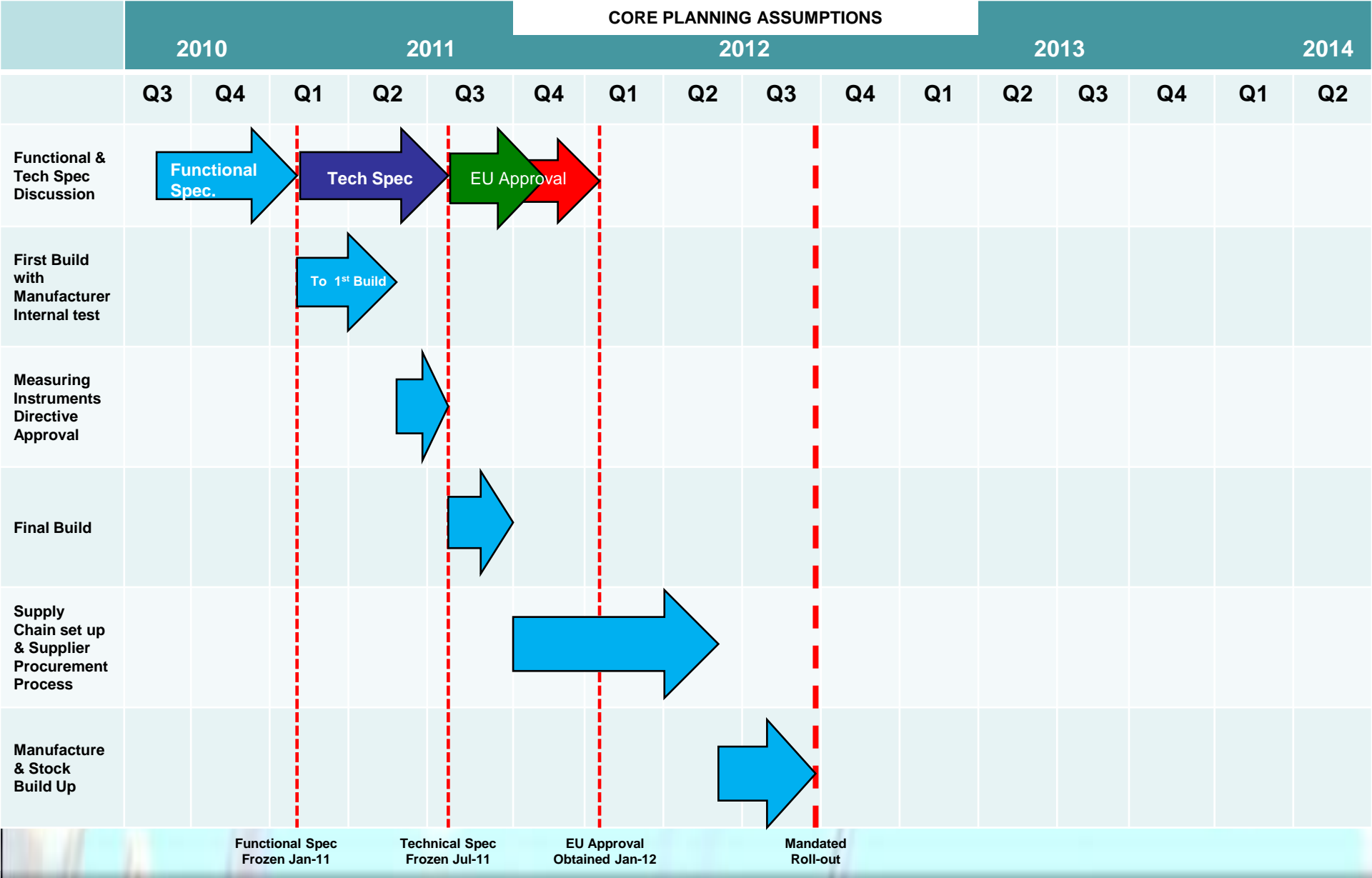
***A complex Engineering,
Logistics and Skills challenge***

High Level Functionality

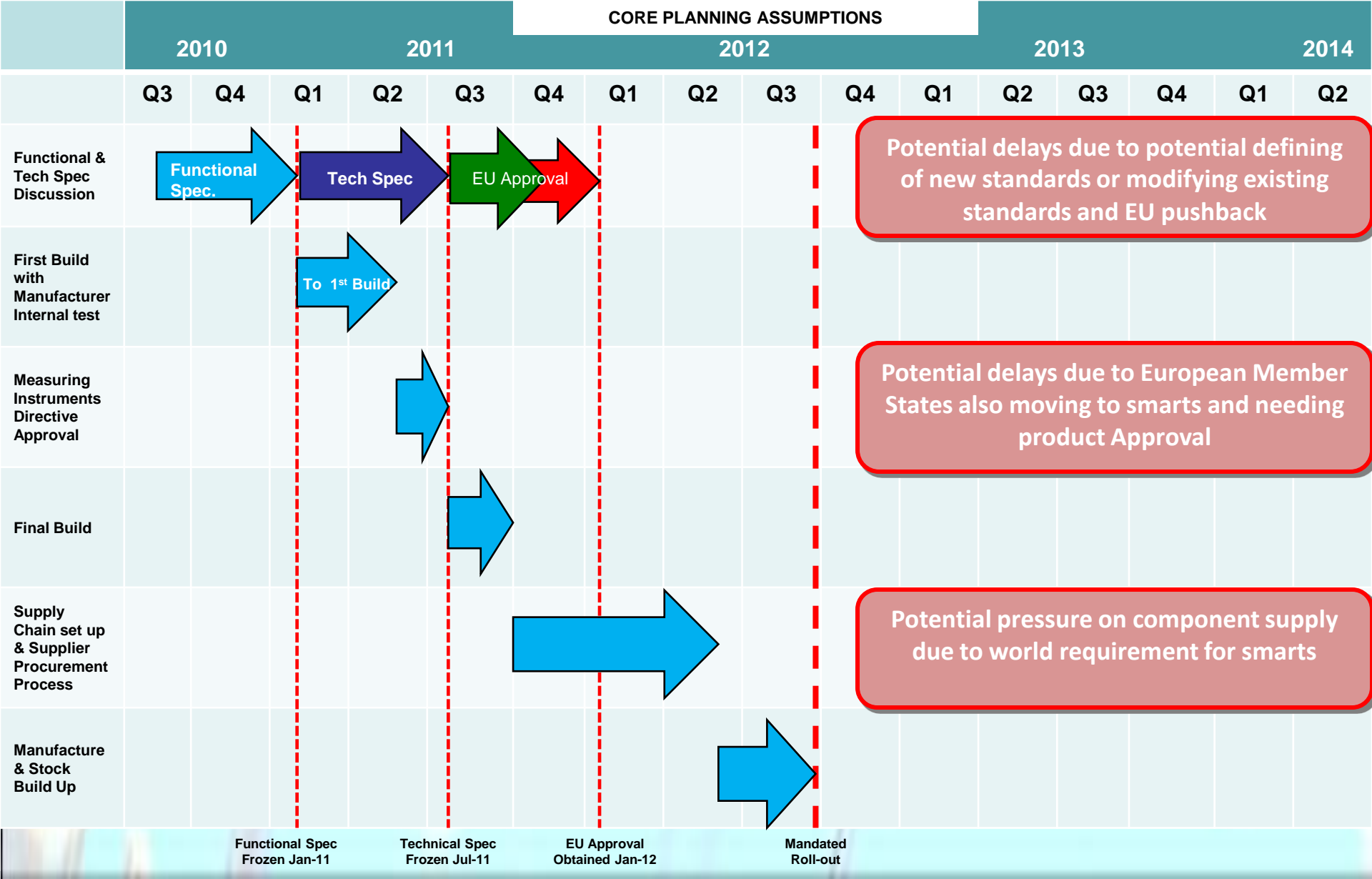
- A. Remote provision of accurate information
- B. 2-way communications
- C. Home Area Network
- D. Multiple tariffs
- E. Load management capability
- F. Remote disablement/enablement
- G. Measuring exported electricity
- H. Communicate with microgenerator

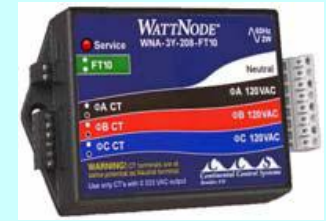
	CORE PLANNING ASSUMPTIONS															
	2010		2011				2012				2013				2014	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Functional & Tech Spec Discussion																
First Build with Manufacturer Internal test																
Measuring Instruments Directive Approval																
Final Build																
Supply Chain set up & Supplier Procurement Process																
Manufacture & Stock Build Up																
			Functional Spec Frozen Jan-11		Technical Spec Frozen Jul-11		EU Approval Obtained Jan-12						Mandated Roll-out			

CORE PLANNING ASSUMPTIONS

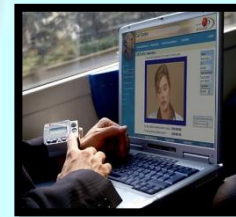


CORE PLANNING ASSUMPTIONS





Home Networks take everyday devices and make them into.....





.....intelligent, interoperable, networked devices that should communicate on a peer-to-peer basis using open standards.....





WEBSITE: www.beama.org.uk

E-MAIL: info@beama.org.uk

PHONE: 020 7793 3000