

DCG IISG Meeting 1

Npower Feedback



An **RWE** company

Summary of Contents

- > The slides in the pack cover the actions set by Ofgem at the meeting on 8th September:
 - Mapping of identified service requirements to ERA Options and interim interoperability principles
 - Mapping of same ERA Options to solutions being used in npower smart metering trials
 - Feedback from trial customers on the IHD contents
 - Implications of replacing interim WAN module

Mapping of Service Requirements

- > We have mapped the service requirements identified at the IISG meeting on Monday to the proposed interim interoperability principles (slide 5) and ERA Options (slide 6)
- > Given the high level nature of the options, several of the options would appear to deliver the requirements
- > We have therefore mapped the same requirements against the capability of the head end systems we are using for our current smart metering trials (slide 7)
- > We are using Logica, OnStream, and Bglobal to provide head end solutions and services in our smart metering trials. They were each selected for very different trials and no preference should be inferred from the information provided.
- > Smart Metering technology is provided by Landis & Gyr and EDM I and all trials include the provision of an IHD

ERA Solution Options for Interim Interoperability

Ref	Option
1	Central translation of all head end data into standard industry data formats (where applicable)
2	Standardised Head End Output – for interface with Suppliers
3	Consolidated Head End – either directly to meters, or to individual head ends, providing interface to Supplier
4	Suppliers interact with individual head ends and provide translations to their systems (and agents) themselves
5	Suppliers (or their agents) provide communication and data services to each other
6	Incoming Supplier appoints same agents as losing Supplier
7	Site visits to exchange SIM or meter



Principles Vs Options Matrix

Options

	Central translation of all head end data into standard industry data formats (where applicable)	Standardised Head End Output – for interface with Suppliers	Consolidated Head End – either directly to meters, or to individual head ends, providing interface to Supplier	Suppliers interact with individual head ends and provide translations to their systems (and agents) themselves	Suppliers (or their agents) provide communication and data services to each other	Incoming Supplier appoints same agents as losing Supplier	Site visits to exchange SIM or meter
Principles	1	2	3	4	5	6	7
Quick and economic to deliver	no	no	no	no	no	no	no
Deliver economic value	no	no	no	no	no	no	no
Easy to integrate and operationalise	yes	yes	yes	no	no	no	no
Does not undermine enduring arrangements	yes	yes	yes	no	no	no	yes
Commercial terms which are fair to all and transparent	yes	n/a	yes	no	no	no	n/a
Should not adversely impact customer experience	yes	yes	yes	no	yes	no	no
Minimal change to/impact on existing industry infrastructure, dataflows, processes and participant	no	no	no	no	no	no	no
One participant cannot prejudice (or be prejudiced by) the Interim Arrangements must be robust to the aggregated volumes of metering systems set in suppliers' roll-out	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Should be easy to migrate data to DCC	yes	yes	yes	no	no	no	no
Smart Grids are out of scope	n/a	n/a	n/a	n/a	n/a	n/a	n/a



Requirements Vs Options Matrix

#	Requirements	Central translation of all head end data into standard industry data formats (where applicable)	Standardised Head End Output – for interface with Suppliers	Consolidated Head End – either directly to meters, or to individual head ends, providing interface to Supplier	Suppliers interact with individual head ends and provide translations to their systems (and agents) themselves	Suppliers (or their agents) provide communication and data services to each other	Incoming Supplier appoints same agents as losing Supplier	Site visits to exchange SIM or meter
		1	2	3	4	5	6	7
1.54	Check accuracy of master clock data	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.55	Tamper alarm triggered	YES	YES	YES	YES	YES	YES	YES
1.56	Meter fault alarm triggered	YES	YES	YES	YES	YES	YES	YES
1.58	Diagnostics	YES	YES	YES	YES	YES	YES	YES
1.57	Firmware / software upgrade	YES	YES	YES	YES	YES	YES	YES
1.59	Test communication line	YES	YES	YES	YES	YES	YES	YES
1.62	Download / clear existing data	YES	YES	YES	YES	YES	YES	NO
1.63	Remote configuration of settings	YES	YES	YES	YES	YES	YES	YES
1.65	Meter read	YES	YES	YES	YES	YES	YES	YES
1.67	Remote enablement / disablement of supply	YES	YES	YES	YES	YES	YES	YES
1.68	Consumer interaction	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.72	Tariff update	YES	YES	YES	YES	YES	YES	YES
1.73	Supply fault alarm triggered	YES	YES	YES	YES	YES	YES	YES
1.74	Maximum demand read	YES	YES	YES	YES	YES	YES	YES
1.75	Notification of failure to obtain reading	YES	YES	YES	YES	YES	YES	YES

Yellow = complicated to manage

Blue = Multiple failure points and SLA breakdowns



Head End Solutions

#	Requirements	Logica	OnStream	Bglobal
1.54	Check accuracy of master clock data	N/A	N/A	N/A
1.55	Tamper alarm triggered	YES	YES	NO
1.56	Meter fault alarm triggered	YES	YES	NO
1.58	Diagnostics	NO	NO	NO
1.57	Firmware / software upgrade	NO	NO	YES
1.59	Test communication line	YES	YES	YES
1.62	Download / clear existing data	YES	YES	YES
1.63	Remote configuration of settings	YES	YES	YES
1.65	Meter read	YES	YES	YES
1.67	Remote enablement / disablement of supply	YES	YES	YES
1.68	Consumer interaction	N/A	N/A	N/A
1.72	Tariff update	YES	YES	YY
1.73	Supply fault alarm triggered	NO	NO	NO
1.74	Maximum demand read	NO	NO	NO
1.75	Notification of failure to obtain reading	NO	NO	NO

Logica - Instant Energy
 OnStream - Generis & H9
 Bglobal - EDML

Yellow = function believed to be available but not currently utilised

Solutions used to communicate to npower Smart trial meters



Customer Use of IHDs

- > Further to the discussion at the IISG regarding the remote update of tariff and price information to the IHD we have provided details of customer feedback on the usefulness of the IHD
- > As part of our smart metering trials we have provided customers with an IHD and we have interviewed all trial customers seeking their views on the technology
- > The vast majority of customers like the IHD and the most important features used are the amount of energy being used along with the associated costs.
- > It therefore seems central to the customer experience that this information is based on the correct tariff and prices
- > The next two slides show quotes from customers given during the interviews and a summary of the IHD features that customers found most useful

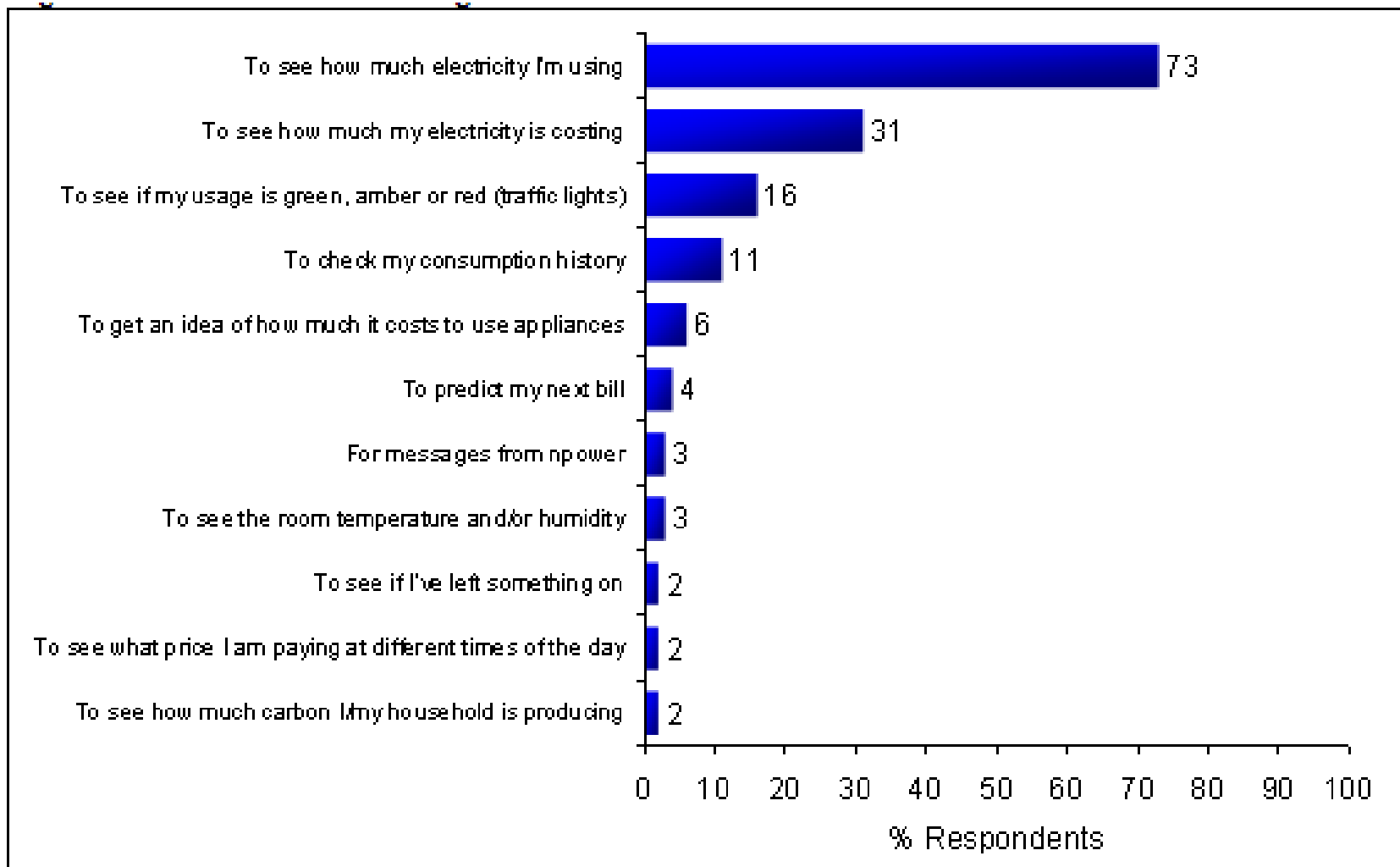


Customer Quotes on IHD

- > *“It saves money and energy, energy is money.”*
- > *“You can see how much the electric is going to cost each month and being retired on a fixed income it’s all about economics.”*
- > *“You know exactly where you stand. If you have a limited amount of money you have to balance the books. It’s good to know where your money is going.”*
- > *“Saving money, but as an aside you’re helping to save the planet too.”*
- > *“It’s financial first and then the environment second, for future generations.”*



Respondents were asked to indicate which features of the IHD they used on a regular basis. The following table ranks the importance from a customer perspective.



Replacement of Interim WAN Module

- > There was a suggestion that any WAN module installed during the interim period prior to DCC establishment might have to be replaced
- > This would involve the purchase of replacement WAN modules and a second visit to the customer's premises
- > Based on proposed targets in the Prospectus, this could be circa 20% of customers requiring a revisit at a point when the deployment volumes overall are reaching annual peak
- > This introduces an element of cost and risk into the deployment that must be considered by the IISG as the impact to the customer would be significant and could derail the ongoing roll out
- > Tables on next slide show what the potential additional costs of a further WAN module and second visit would be based on 20% of the npower portfolio



Cost of WAN Exchanges – based on current Prospectus targets and assuming a need to revisit every property

WAN Box Swap out costs			Per cust Cost over 15 months - pm	Per cust Cost over 18 months - pm	Total Cost over 15 months - pm	Total Cost over 18 months - pm
	Unit cost	Totals				
Customers		4156751				
Interim 20%		831350				
Wan Box	£15	£12,470,253	£1.00	£0.83	£831,350.20	£692,791.83
Engineer visit cost	£28	£23,277,806	£1.87	£1.56	£1,551,853.71	£1,293,211.42
Total Cost	£43	£36,748,059	£2.87	£2.39	£2,383,203.91	£1,986,003.26

Installation cost based on Ofgem Smart Electricity job

WAN Box Swap out costs			Per cust Cost over 15 months - pm	Per cust Cost over 18 months - pm	Total Cost over 15 months - pm	Total Cost over 18 months - pm
	Unit cost	Totals				
Customers		4156751				
Interim 20%		831350				
Wan Box	£15	£12,470,253	£1.00	£0.83	£831,350.20	£692,791.83
Engineer visit cost	£14	£11,638,903	£0.93	£0.78	£775,926.85	£646,605.71
Total Cost	£29	£24,109,156	£1.93	£1.61	£1,607,277.05	£1,339,397.54

Installation cost based on 50% of Ofgem Smart Electricity job

