Crowded Meter Room

Overview for REC Parties (REC Change R0043)

10 August 2023



AltHANCo

Agenda

1. Welcome and introductions
2. Background to Alt HAN and CMR
3. CMR Governance
4. CMR pilot and the Operating Model
5. Enabling REC Changes
6. Next Steps

Alt HAN Co

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What is “Alt HAN”?

What is Alt HAN?

- Alternative Home Area Network
- The delivery of a technological solution to reach the c2.4% percent of premises the mainstream smart solution cannot cater for.

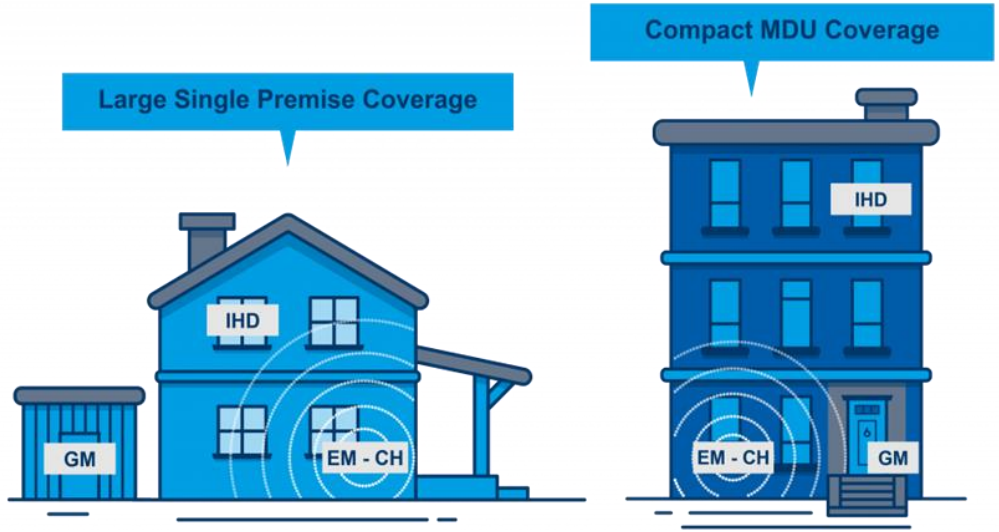
Alt HAN is a range-extending service

“Missing piece of the jig-saw”, where:

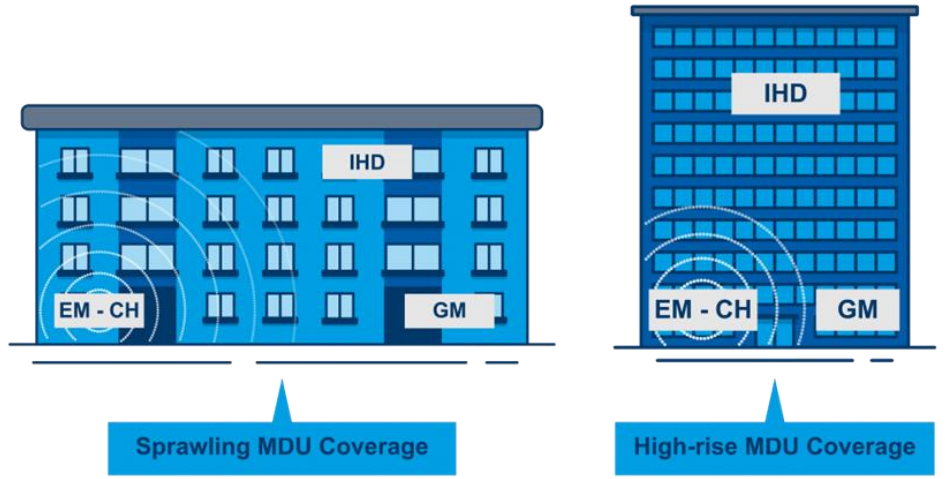
- Meter + DCC services ≠ full smart customer experience
- Because 2.4 GHz or 868 MHz cannot propagate far enough to pair with gas meter and/or IHDs/CADs
- Obligation on energy suppliers to use it where needed as part of smart meter rollout.

Alt HAN is an organisation and a company

- A “regulated co-operative” of suppliers
- Established in 2016
- Single, regulated purpose to deliver Alt HAN
- Alt HAN Forum as decision-maker
- Alt HAN Co. as contracting party
- Empowered by the SEC
- Underpinned by licence obligations on suppliers
- Costs recovered via DCC charges.



Estimate that ~ 2.4% of premises need Alt Han



What is a CMR?

A CMR, or **Crowded Meter Room**, is a scenario whereby a Meter Room or Meter Cupboard, containing a collocation of Meter Points (Electricity Meters / ESMEs / MPANs) is space constrained by inhibiting factors, resulting in challenges to installing or replacing Metering infrastructure, specifically Alt HAN Equipment.

The Alt HAN Bridge 1 Device (wired to the Electricity Meter) is the applicable device for use in collocated metering environments. The Bridge, as well as the Connector Block, adds to the foot-print of a metering system.

Meter Rooms and Meter Cupboards can often have a space restriction introduced by inhibitors, such as, closely collocated meters, inhibitive trunking, inhibitive customer isolation switches. These are known as the CMR Uses Cases, or Typology.

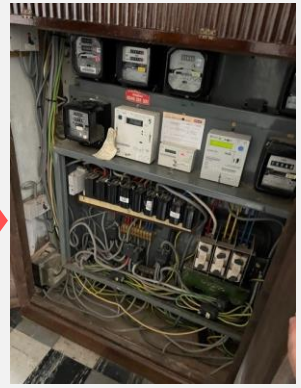
Identifying, designing for, and orchestrating the resolution of these inhibitors to the installation of equipment, primarily the Alt HAN Equipment (but sometimes also the ESME install may be prohibited), is the objective of the CMR Coordinator pilot.

Alt HAN Point to Point Wired Bridge



The P2P Wired Alt HAN Bridge comprises a Bridge situated in proximity to the ESME/Comms Hub, connected via Flying Leads to two Connector Blocks situated underneath the ESME (DNO tails)

The 'Crowded Meter Room'





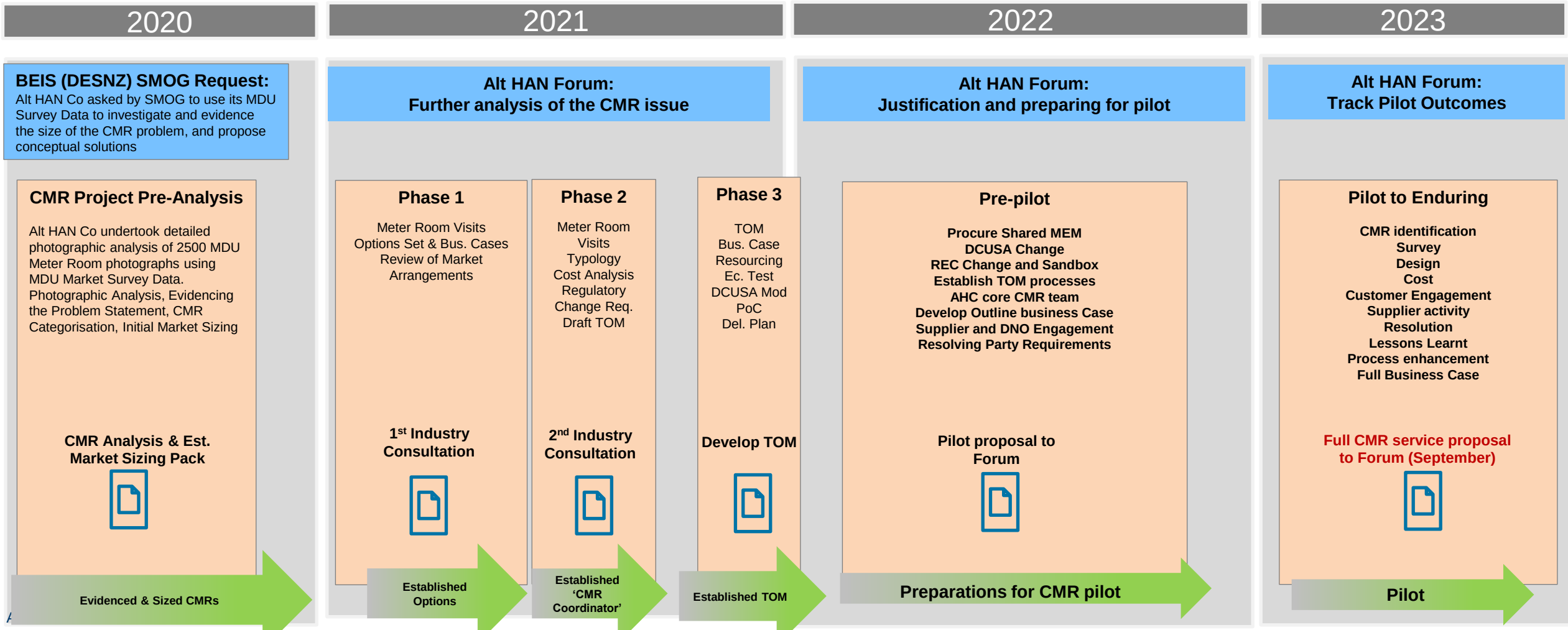




Meter Rooms and Meter Cupboard are fairly unique in design and make up. Sometimes we see rooms as above, impacting all meters, sometime a subset of meters are affected. Often, we see Meter Rooms that are robustly engineered, presenting engineering challenges.

History of Crowded Meter Room activities

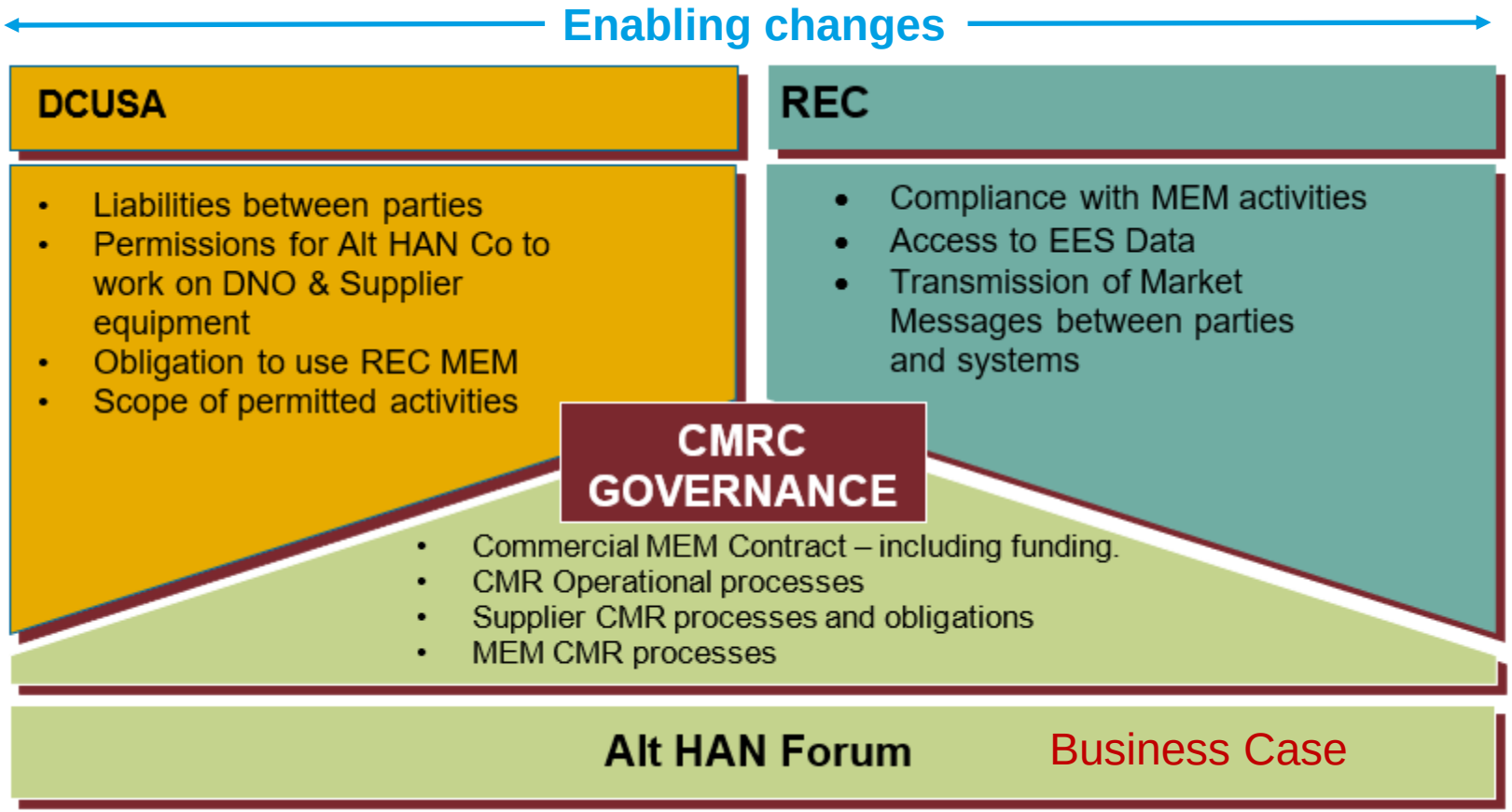
In early 2020 industry discussed the long standing challenge of spatial contraints within Meter Rooms that might impact the ability to install smart metering and Alt HAN equipment. BEIS (DESNZ) SMOG asked if Alt HAN Co could investigate the potential issue, evidence & size the issue of Crowded Meter Rooms and subsequently propose any possible mitigating options. Alt HAN Co subsequently stood up the foundations of the CMR Project which initially evidenced the issue of CMRs, proposed an estimated Market Size, and then subsequently ran a series of phased projects to establish a viable operating model for the execution of physical CMR resolutions (Meter Room Engineering), underpinned by industry consultation and field evidence and ultimately leading to the current pilot.



CMR Governance

During the pilot AHC have worked with Energy Suppliers to better understand the supplier activities required if CMR progresses

DCUSA Modification DCP400



REC 'Sandbox' (for pilot)

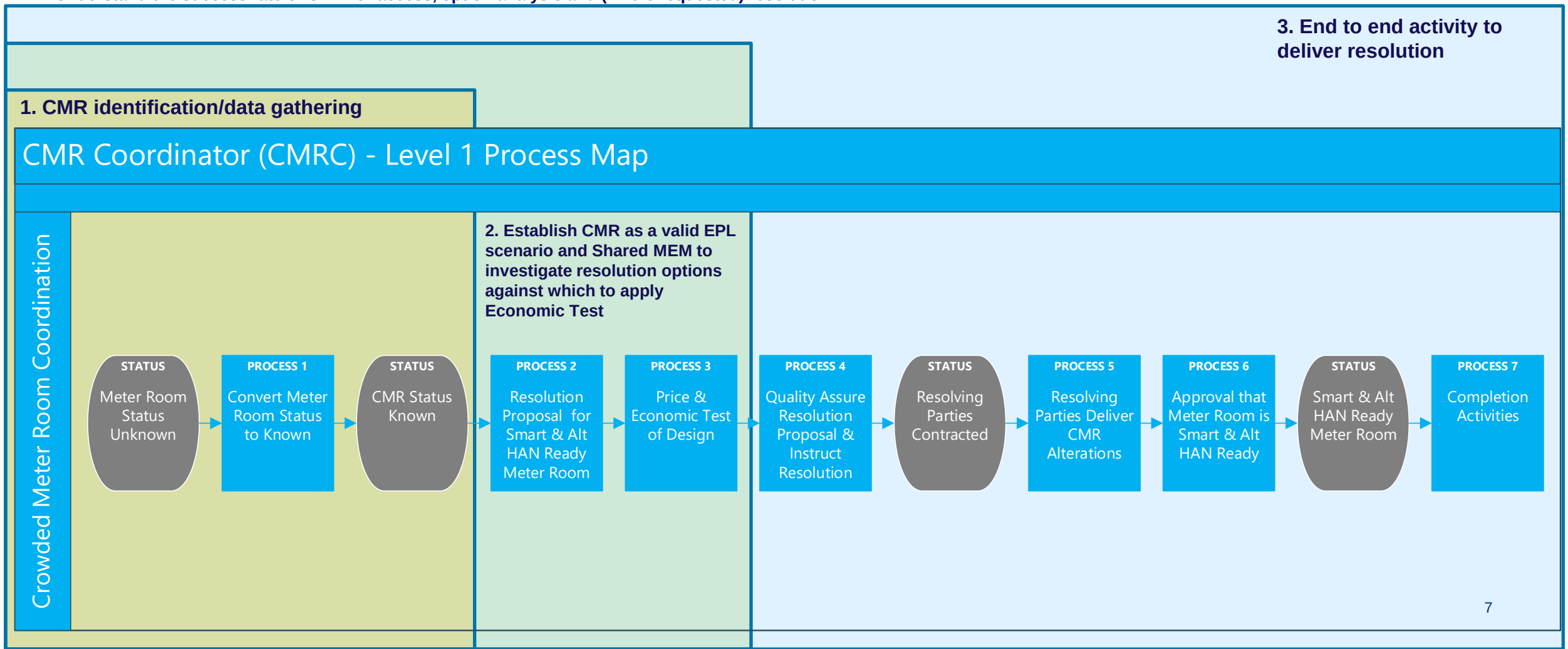
R0043 (for enduring)

Section Z of the SEC sets out Alt HAN Governance:
Forum approved and agreed funding for activity to date (incl. pilot)
If Forum agrees an enduring CMR then changes to Alt HAN
'Supplier Contract' required that will define CMR processes

CMR Pilot Target Operating Model

The rationale for establishing a pilot was to trial the plausibility of a coordinated CMR activity to assist Suppliers in meeting their rollout obligations without committing to the cost of a full service by:

- **Gathering further evidence on the scale of the problem**
- **Confirming the requirements across all Resolving Parties and testing the interactions during pilot to identify issues and gaps**
- **Establish CMR as an agreed Exempt Premise List scenario which is capable of being subject to collective evidence gathering and submission**
  - **Application of a Threshold Test to real life scenarios**
- **Understand the success rate of CMR for access, option analysis and (where requested) resolution**



Requirements Traceability Matrix

Detailed requirements developed in advance of pilot.
Shows requirements for:

- CMRC
- CMRM
- Supplier
- (I)DNO
- Landlord/BNO
- System

Shared with REC Parties via R0043 page and documents

Alt HAN Co - Crowded Meter Room Coordinator (CMRC)

Requirements Traceability Matrix (RTM) Briefing Pack

Pilot Project Phase

June 2022

WHITE - PUBLIC DOMAIN

Alt HAN Co

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- DNO Requirements
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- Design Support Requirements
- Quality Assurance Requirements
- Commercial Requirements
- Finance Requirements
- System Requirements
- Appendix – CMRC TOM Process Flow L1 & L2

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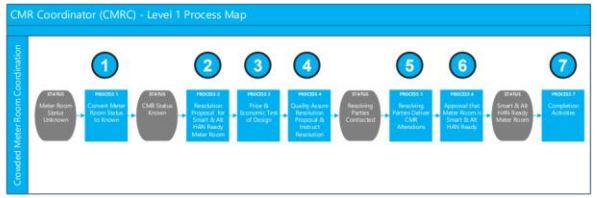
TOM Process Flow – Level 1 & Level 2

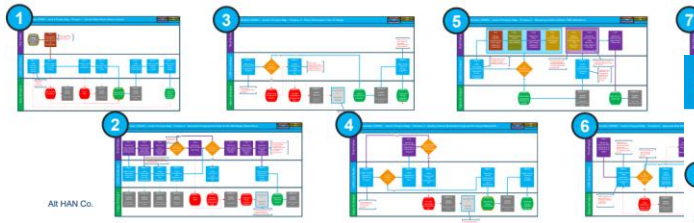
To the right is an extract of the Level 1 Process Flow for the CMR Coordinator. Each Actor has a number of touchpoints in this journey.

Each numbered process step then flows down into the Level 2 Process Flow (below). There are 7 Level 2 Process Flows. These 7 Process Flows have subsequently been used to generate our End-to-End Requirements in the RTM.

Additional to these 7 Process Flow steps, we are additionally capturing Shared MOP, System and Reporting requirements.

This pack will take us through the requirements by ACTOR & SYSTEM





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Requirements by Actor
Energy Supplier Requirements Part 1/2

Level 1 Process Step: 1 2 3 4 5 6 7

1. Convert Meter Room Status to Known
2. Resolution Proposal for Smart & Alt HAN Ready Meter Room
3. Price & Economic Test of Design
4. Quality Assure Resolution Proposal & Instruct Resolution
5. Resolving Parties Deliver CMR Alterations

Requirement ID	Organisation	Actor(s)	Owner	Requirement Category	Requirement Sub-Category	Requirement	Associated Level 1 Process	Associated Level 2 Process	Pilot MOSCOW	Operational MOSCOW
AHC.CMR.75	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	Third Party Actions	The CMRC requires prerequisite, quality and full data from parties identifying CMR Cases	Process 1 – Convert Meter Room Status to Known	TP 1.1 Raising Party Provides Pre Requisite Data & Photographs	C	M
AHC.CMR.92	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	System Inputs	The CMRC need to attain positive confirmation from the impacted Energy Suppliers that they recognise their MPAN is subject to a CMR Case	Process 1 – Convert Meter Room Status to Known	CMRC 1.7 CMRC Inform Impacted Energy Suppliers	M	M
AHC.CMR.109	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	System User Interface	The impacted Energy Suppliers should be able to communicate any queries or disputes to the CMRC via that CMR Portal	Process 2 – Resolution Proposal for Smart & Alt HAN Ready Meter Room	CMRC 2.2 CMRC Coordinates between Impacted Stakeholders	S	M
AHC.CMR.115	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	System Inputs	Energy Suppliers are required to provide the CMRC with information regards customer/resident vulnerability and PSR (Priority Service Register)	Process 2 – Resolution Proposal for Smart & Alt HAN Ready Meter Room	CMRC 2.3 CMRC Coordinates Stakeholder Risk Assessment	S	M
AHC.CMR.118	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	Third Party Actions	Energy Suppliers need to establish their own internal process for the sharing of appropriate data regards vulnerability and PSR with the CMRC. An SLA may be required on this with Energy Suppliers	Process 2 – Resolution Proposal for Smart & Alt HAN Ready Meter Room	CMRC 2.3 CMRC Coordinates Stakeholder Risk Assessment	S	M
AHC.CMR.186	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	System Inputs	Where an Energy Supplier has gained an MPAN that has a valid CMR Case against it, and has been provided a status update notification, that Energy Supplier must positively confirm they have received that notification	Process 3 – Price & Economic Test of Design	CMRC 3.3 CMRC Inform Impacted Energy Suppliers	S	M
AHC.CMR.193	Energy Suppliers/MOPs	Energy Suppliers/MOPs	CMR Manager	Operations	System Inputs	Impacted Energy Suppliers will need to positively acknowledge that they have received notification of a valid CMR Case to be progressed, and that they will participate in communications activities.	Process 4 – Quality Assure Resolution Proposal & Instruct Resolution	CMRC 4.4 Resolving Parties Contracted & Instructed to Start Stakeholder Engagement	S	M
AHC.CMR.225	CMR Coordinator	Energy Suppliers/MOPs	CMR Manager	Operations	System Processing	An ability for an energy supplier to electronically access case information pertaining to their meter room based on MPANS so they can view all the current case details.	Process 5 - Resolving Parties Deliver CMR Alterations	CMRC 5.2 CMRC Provides Authorisation to Execute Works	C	M
AHC.CMR.126	Energy Suppliers/MOPs	Energy Suppliers/MOPs	Alt HAN IT	Operations	System Processing	The ability for energy suppliers to report via a mechanism that works need to be aborted	Process 5 - Resolving Parties Deliver CMR Alterations	CMRC 5.2 CMRC Provides Authorisation to Execute Works	C	M

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Supplier Activities



Supplier can tell CMRC if they identify a potential CMR
When notified by CMRC, confirm the affected MPAN is your supply
Supplier notifies CMRC if they need to account for any PSR/vulnerability considerations
Supplier communicates the need for resolution works and contact for works to their customer
CMRC notifies Supplier if any remediation works are required
Supplier is notified that works have completed and receive copy of complete design

Enduring system

Energy Suppliers will have system access to:

- Validate MPANs
- Confirm if customer could be off power
- Understand when to issue initial customer letters (or contact by other customer preferred method)
- Check CMR building status
- Receive confirmation that works had completed and copy of the design

Supplier can plan Smart bookings and equipment needed

CMR survey, design and resolution allows for Suppliers

- To take the opportunity to book installs during CMR engagement
- Suppliers will benefit from knowing what premises require SBCH, DBCH or Alt HAN and therefore what equipment will be needed at their properties in the MDU
- It may be possible to utilise MEM to install smart during resolution (if Supplier has contract with MEM)

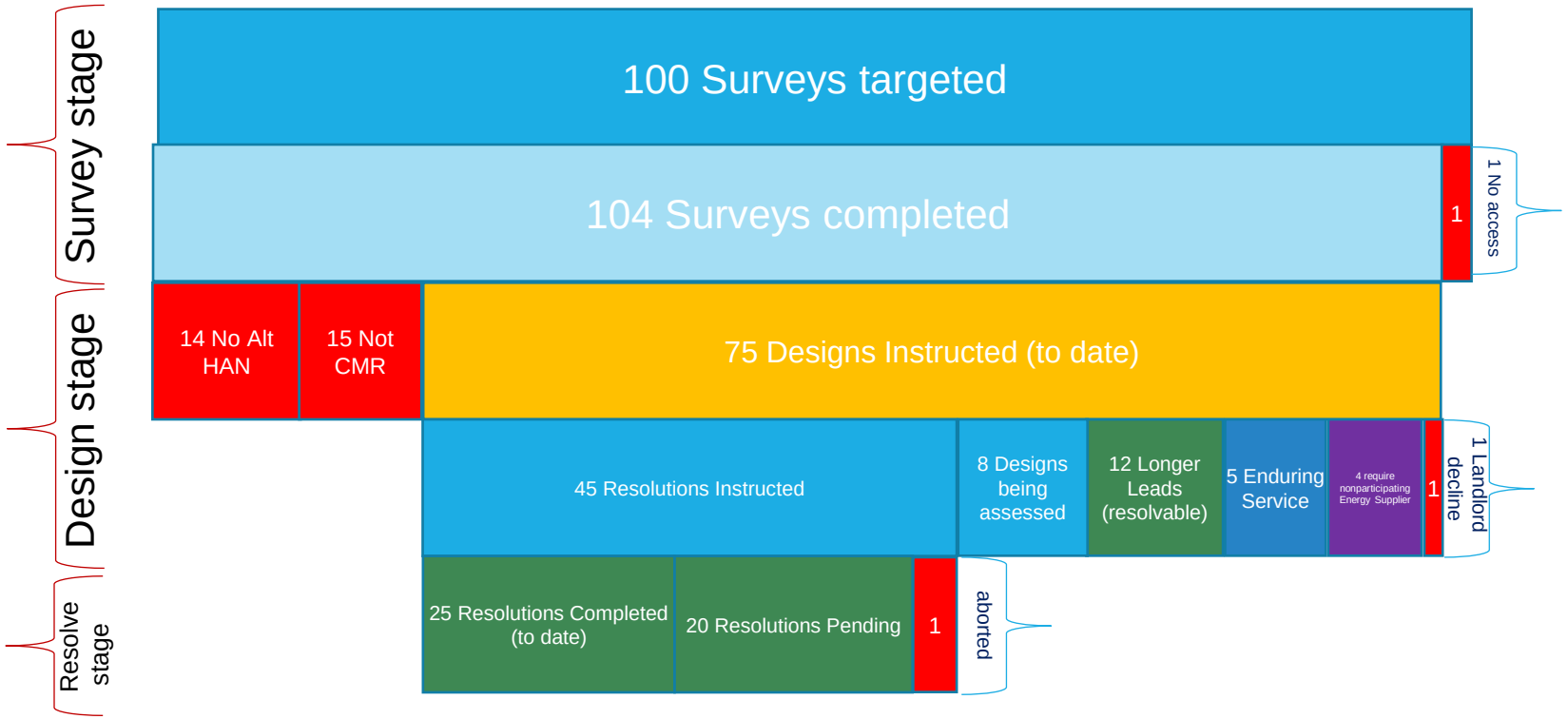
Implementing the Supplier CMR activity

- New schedule added to Supplier Contract
- Supplier workshops
- 6-9 months lead time to mobilise
- System access and testing

Summary of the pilot activity and constraints

The information below provides a summary of the outcomes of the pilot activity across the various phases of a CMR cycle (Survey, Design and Resolution) and confirms that CMR coordination works.

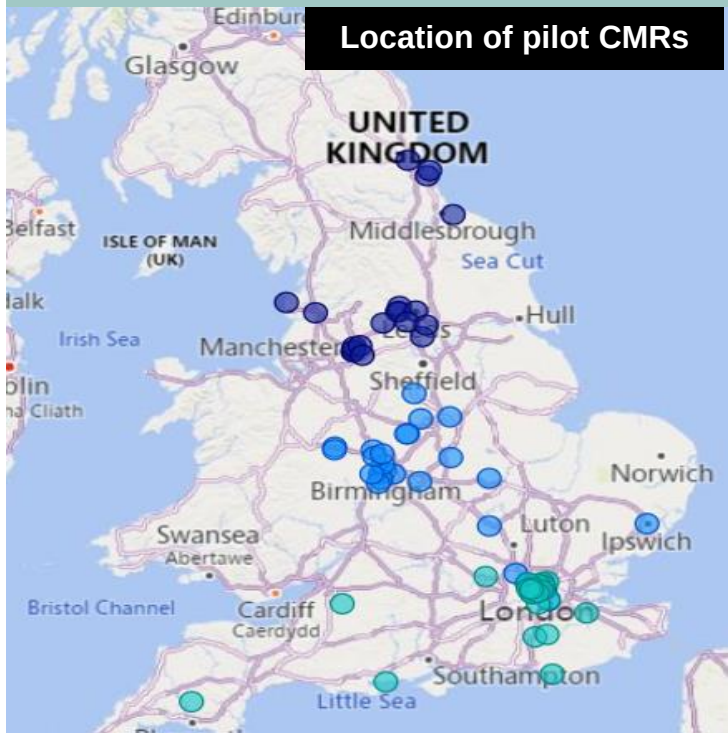
Breakdown of pilot CMRs (@31 July)



Limitations of pilot

- Rooms selected depended upon Energy Supplier participation meaning some complex rooms were unable to be piloted
- Some resolutions were partial due to the inability to fully resolve the room due to Supplier participation
- We did not move equipment for customers who Energy Suppliers indicated should not be off power
- Changes in participating Energy Supplier led to last minute redesigns
- Limited DNO interventions identified

Location of pilot CMRs



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RETAIL ENERGY CODE

R0043

10TH AUG 2023

R0043 – PROPOSED SOLUTION

The proposed REC solution will:

- Make changes to Schedule 1 – Interpretations
- Make changes to Schedule 12 – Data Access.
- Make changes to Schedule 14 – Metering Operations
- Add new Scenario Variants for the following Market Messages

MM00013/D0002
MM00016/D0126
MM00023/D0135
MM00029/D0136
MM00036/D0139
MM00093/D0179*; and

- Create a new User Category for the CMRC and grant access to additional Data Items in EES.

R0043 – PROPOSED SOLUTION

Proposal Question.

1) The CMRM may not have access to Prepayment Data Items in order to populate the D0179. In order to facilitate this, it is possible to introduce optionality on current mandatory Data Items within the D0179. This will change the Version number of the Market Message and would require system updates in order to send/receive.

Based on this, would your organisation prefer to receive the D0139 only or the D0179 for changes in energisation status' for Prepayment Meters?

Next steps

CMR Project:

- Close out pilot activity (September)
- Forum decision on Enduring service (September)
  - If agreement to proceed, implement transition plan, including Supplier Contract changes and progression of R0043 to conclusion
  - If no agreement to proceed, close down project and circulate final report to relevant bodies, withdraw R0043

R0043:

- Change Panel review initial Change report (August)

Appendices

Client Unrestricted

Alt HAN Technology Overview

BRIDGE TYPE	POWER SOURCE	Solution A	Solution B	Solution C
		Use case 2-6	Use case 8	Use case 1 & 7
Bridge 1  • Provides ZigBee and PLC comms • Always co-located with the CH/ESME • Powered by mounting on electricity meter tails • Push button for joining B1 to B2/B3	 ESME tails (DNO side)	B1	B1	B1
Bridge 2  • Provides ZigBee and PLC comms • Located within the home / premises • Powered by plugging into socket • Push button to join to B1	 Socket	B2	B2 B2	
Bridge 3  • Provides ZigBee, PLC and LRRF (458MHz) comms • Located within the home / premises • Powered by plugging into socketPush button for joining B1/B4 • *Only used in remote gas scenarios where a B4 is required*	 Socket			B3
Bridge 4  Alt HAN Co. • Provides ZigBee and LRRF (458MHz) comms • Located near the GSME • Battery powered, sleepy device • Push button to join to B3 • *Only used in remote gas scenarios where a B4 is required*	 Internal battery			B4