Department of Energy & Climate Change

Smart Metering Implementation Programme

Government response to the consultation on the process to finalise the Great Britain Companion Specification

15 April 2014

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General information

Purpose of this document:

This document sets out the Government's response to the Consultation on the Process to Finalise the Great Britain Companion Specification.

Issued: 15 April 2014

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Territorial extent:

This consultation response applies to the gas and electricity markets in Great Britain. Responsibility for energy markets in Northern Ireland lies with the Northern Ireland Executive's Department of Enterprise, Trade and Investment.

Additional copies:

You may make copies of this document without seeking permission. An electronic version can be found at https://www.gov.uk/government/consultations/smart-metering-implementation-programme-the-process-to-finalise-the-great-britain-companion-specification.

Other versions of the document in Braille, large print or audio-cassette are available on request. This includes a Welsh version. Please contact us under the above details to request alternative versions.

Quality assurance:

This consultation has been carried out in accordance with the Government's Consultation Principles, which can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60937/Consultation-Principles.pdf

If you have any complaints about the consultation process (as opposed to comments about the issues which are the subject of the consultation) please address them to:

DECC Consultation Co-ordinator
3 Whitehall Place
London SW1A 2AW
Email: consultation.coordinator@decc.gsi.gov.uk

1 Executive Summary and Introduction

1   The Great Britain Companion Specification (GBCS) will describe the detailed requirements for communications between Devices in consumers' premises, and between Devices and the Data and Communications Company (DCC). This document sets out the Government's response to the Consultation on the Process to Finalise the Great Britain Companion Specification, "the consultation", which was published on the 5th February 2014.

2   The consultation sought views on:

- A proposed process for completing the GBCS; and
- A proposal to remove locally-initiated Consumer Access Device (CAD) pairing from the version of the GBCS to be used at Initial Live Operation (ILO).

3   Twenty-three consultation responses were received from a range of stakeholders including small and large energy suppliers, meter manufacturing companies, Consumer Futures, energy service companies and other interested parties. A full list of respondents is provided in Annex 1.

4   Most respondents agreed with the proposed approach to developing the GBCS and we have concluded that it will be based on internationally recognised communications protocols (ZigBee SEP and DLMS COSEM) and will set out local implementation requirements to support the GB smart metering solution where necessary. We have established a joint industry project team to oversee the development of the GBCS and will release iterations for comment by stakeholders at key junctures.

5   Remotely-initiated CAD pairing solutions (where the consumer provides information to any authorised third party to pair their CAD remotely) will be supported at ILO, ensuring that consumers will be able to begin to realise the benefits of CADs. Domestic consumers will also be offered In Home Displays (IHDs), which will be installed alongside the smart meter in the consumer's premises.

6   We have concluded that, in order to protect against delay to ILO, locally-initiated CAD pairing will be removed from the initial version of GBCS. However, we remain committed to the implementation of local CAD pairing at the earliest opportunity after ILO.

7   An update on the progress made to date on the GBCS, including the key milestones that we are working towards, is set out in Chapter 4. This includes the release of a base-line document on 8th July 2014, which will be consulted upon from mid-July and concurrently notified to the European Commission, as required under the Technical Standards and Regulations Directive, on 31st July 2014.

2 GBCS Development

Summary of Issue under Consideration

> The consultation described the following process to finalise the GBCS:
>
> - DECC would produce the requirements for DCC user messages to the gas meter (rather than ZigBee as originally planned), but the GBCS would still be fundamentally based on open standards (ZigBee SEP and DLMS COSEM);
>
> - A joint industry project team had been established to oversee the development of the GBCS;
>
> - Iterations of the GBCS would be published for comment at key junctures.
>
> Consultation question 1 asked stakeholders if they agreed with the proposed process for developing the GBCS.

Government Consideration of Issue

8   Most respondents agreed with our proposed approach to finalising the GBCS, noting the efforts that Government is making to involve stakeholders through an iterative and collaborative approach, and so we will continue to implement this approach. We have considered requests from several respondents to provide on-going support to the review of GBCS and we will continue to allocate resource to this activity.

9   The importance of 'proving' the GBCS[1] was noted by respondents, although most respondents felt that they were not in a position to participate in proving due to its technical nature. The DCC is undertaking proving exercises with its service providers and other experts (including communications hub manufacturers) and this will encompass testing of the GBCS Use Cases and the DCC User Gateway Interface Specification (DUGIS). All elements of the GBCS, including the end-to-end security requirements will be considered as part of the DCC's proving exercise, but it should be noted that it will be suppliers' responsibility to ensure that the equipment they install is GBCS compliant.

10   The DCC is also considering whether to undertake GBCS Interface Testing (GIT) using a test environment with the capability of using prototype meters to electronically test end-to-end messages ahead of SIT. We welcome such initiatives to provide additional early assurance of the end-to-end solution.

11   Some respondents asked for further detail on the document release and change management strategy, noting they wanted access to key decisions in a timely manner. We circulated a GBCS Release Strategy to stakeholders in March 2014 that sets out the release process and the manner in which comments will be evaluated and incorporated into a future version of GBCS.

12   We will also produce Issue Resolution Notes (IRNs) in response to emerging issues (which could be raised through review comments or from the DCC proving exercise) and these will be circulated to stakeholders as necessary.

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[1] This could for example involve participants simulating (i.e. performing the interface role of) the DCC and Devices and generating messages and responses based on the GBCS Use Cases.

These will provide early sight of the manner in which issues will be resolved prior to the next formal release of the GBCS.

13   Some respondents raised concerns about the scale of the amendments being made to the ZigBee specification. These amendments are necessary to support the GB smart metering requirements and are being managed through the ZigBee Alliance process.

14   A couple of respondents expressed doubts about the Programme's ability to deliver to the published timescales and a number asked for a more detailed GBCS project plan, including reference to dependencies on the availability of DLMS COSEM. We have included an updated plan in Annex 2[2] and will amend the Joint Industry Plan.

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[2] The assumptions in the DCC's consultation with SEC Parties on their Integrated Solution Delivery Plan are consistent with the process and timetable for GBCS completion outlined here.

3 Locally-initiated CAD Pairing

Summary of Issue under Consideration

Locally-initiated CAD pairing functionality will not be included in the April 2014 drop of ZigBee SEP 1.2. We therefore proposed to exclude the functionality to support locally-initiated CAD pairing from the second version of the Smart Metering Equipment Technical Specifications (SMETS 2), the Communications Hub Technical Specifications (CHTS) and the initial version of the GBCS. We suggested that the functionality should be reinstated at a later date after ILO.

Question 2 asked stakeholders if they agreed with the proposal to remove locally-initiated CAD pairing functionality from the GBCS at this time and question 3 sought views on when it would be appropriate to reinstate locally-initiated CAD pairing functionality.

Government Consideration of Issue

15 Nearly all respondents highlighted the importance of locally-initiated CAD pairing; citing an improved consumer experience, independent access to data, reduced supplier costs and a more level playing field for those not wanting to become DCC Users. While approximately a third of respondents accepted the Government's rationale for deferring its inclusion in the GBCS, many did not agree, arguing that ILO should not start without this functionality.

16 However, we believe it is necessary to clarify the remotely-initiated CAD pairing process as several respondents thought that local pairing was the only way devices could be paired without energy supplier intervention. We confirm that remotely-initiated pairing can be undertaken by any DCC User from ILO without supplier intervention in the pairing process (as set out in Annex 3)[3].

17 Respondents also expressed concern that not including the locally-initiated pairing functionality from ILO increased the possibility that it would never be included. The Government recognises the importance of locally-initiated CAD pairing and is committed to its inclusion in the GBCS. The ZigBee Alliance expect that a new version of ZigBee SEP including the functionality to provide for locally-initiated CAD pairing will be issued in late 2014. However, this is dependent on industry support of the ZigBee processes. Changes will also have to be made to the GBCS, SMETS and CHTS.

18 We intend that locally-initiated CAD pairing will be restored as early as possible following ILO. The exact timing and nature of the reinstatement will depend on the impact on the availability of equipment and whether the functionality can be added to installed equipment by an over the air upgrade[4]. We will further consider the manner in which local CAD pairing can be reinstated and will track progress through the GBCS project and the Programme's Implementation Managers' Forum (IMF).

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[3] The operational licence conditions, which are currently subject to consultation on amendments (www.gov.uk/government/consultations/home-area-network-han-installations), require that suppliers provide a HAN and that they connect consumer devices when requested to do so by the consumer. However, this does not preclude other DCC Users from undertaking the pairing process.

[4] Equipment manufacturers have stated that an over the air upgrade should be possible.

4 Timetable

Summary of Issue under Consideration

> The consultation set out that the GBCS would be base-lined in early July and
> would be subject to consultation and notification over the summer.

Government Consideration of Issue

19 Development of the GBCS, ZigBee SEP 1.2 and DLMS COSEM has
progressed significantly since we issued the consultation:

- The ZigBee SEP 1.2 0.7 ballot was passed, and the ZigBee Alliance is on
schedule to formally release this version at the end of April[5];
- Updated versions of the DLMS Green and Blue Books, including GB
requirements, will be issued for review by the DLMS Users' Association at
the end of April, with the review process completed by the end of May; and
- DECC is on schedule to issue GBCS v0.7 rev 7, including all Use Cases,
on 13th May 2014.

20 The progress that has been made is a result of the commitment, expertise and
investment of stakeholders involved in developing the GBCS. The
Government appreciates the on-going industry commitment to the completion
of the GBCS and we intend to publish GBCS v0.8 on 8th July 2014 for
inclusion in the transitional governance base-line. This will be issued for
consultation shortly afterwards (see Annex 2).

21 Many respondents felt that notification of the GBCS to the European
Commission was an important milestone and asked that we set out when this
would be undertaken. We agree and believe that GBCS should be notified at
the earliest point that a base-lined document is available. We therefore intend
to notify the GBCS to the European Commission on 31st July 2014. The
GBCS will be notified alongside the rollout clauses of the supply licence
conditions and communications hub provisions in the DCC licence[6], Smart
Metering Equipment Technical Specification (SMETS 2), Communication Hub
Technical Specification (CHTS), Commercial Products Assurance (CPA)
security characteristics and the device interoperability requirements in the
Smart Energy Code (SEC). We recognise that taking this approach means
that revisions made as a result of consultation or Systems Integration Testing
may require a further notification.

22 Several DCC interface requirements will also be notified to the European
Commission including: DCC User Gateway Interface Specification (DUGIS),
DUGIS Codes of Connection (CoCo), Registration Interface Specification
(REGIS) and REGIS CoCo. The SEC requirements to comply with these
specifications will also require notification. We are currently discussing the
most appropriate date for this notification with the DCC.

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[5] The 0.7 release includes a specification which the ZigBee Alliance believes is ready for
interoperability testing by ZigBee members. Before the specification can progress to the 0.9
(certification ready) stage a minimum of three manufacturer's devices implementing the 0.7
requirements must have been shown to be interoperable.

[6] These are currently subject to consultation www.gov.uk/government/consultations/changes-to-
equipment-installation-requirements-and-governance-arrangements-for-technical-specifications.

Glossary

Communications Hub

A device which complies with the requirements of CHTS.

Communications Hub Technical Specifications (CHTS)

A document which sets out the minimum physical, functional, interface and data requirements that will apply to a Communications Hub.

Consumer Access Device (CAD)

A device which will be securely connected via the HAN interface and will receive consumption and tariff information which it will use to assist consumers manage their energy use. A CAD may be one of a number of devices - such as an enhanced energy display, a smart appliance or a home automation controller.

Data and Communications Company (DCC)

The holder of the smart meter communication licence, Smart DCC Ltd.

DCC User

A SEC Party who has completed the User Entry Processes and is therefore able to use DCC Services.

Device

One of the following: (a) an Electricity Smart Meter; (b) a Gas Smart Meter; (c) a Communications Hub Function; (d) a Gas Proxy Function; (e) a Pre-Payment Interface; (f) an HAN Controlled Auxiliary Load Control Switch; or (g) any Type 2 Device (e.g. IHD).

DLMS COSEM (Device Language Message Specification Companion Specification for Energy Metering)

The suite of standards developed and maintained by the DLMS User Association that describes a common communications language for exchanges with energy meters.

DLMS User Association

The body that develops and maintains DLMS COSEM.

Electricity Smart Meter

A Device meeting the requirements placed on Electricity Smart Metering Equipment in the SMETS.

Gas Smart Meter

A Device meeting the requirements placed on Gas Smart Metering Equipment in the SMETS.

GB Companion Specification (GBCS)

A document setting out amongst other things, the detailed arrangements for communications between Devices on the HAN and between the DCC and Devices.

Home Area Network (HAN)

The means by which communication between Devices takes place within a premises.

Initial Live Operations

The expectation that the DCC will have built and tested its systems for SMETS2 equipment and be operationally ready; all of the Large suppliers will be ready to use the DCC's Services, start installing SMETS2 meters and offer basic services to both credit and pre-payment customers; the DNOs will be ready to support Smart Meter installation; and the Electricity DNOs ready to use the DCC Service to improve network management. Currently, this is planned to be September 2015.

Smart Energy Code (SEC)

The Code designated by the Secretary of State pursuant to Condition 22 of the DCC licence and setting out, amongst other things, the contractual arrangements by which DCC provides services to users as part of its Authorised Business.

Smart Metering Equipment Technical Specifications (SMETS)

A document that sets out the minimum physical, functional, interface and data requirements that will apply to smart metering equipment.

Systems Integration Testing

The period of DCC testing where Devices and DCC's service providers systems are tested together.

ZigBee Alliance

The body that develops and maintains ZigBee SEP.

ZigBee SEP (Smart Energy Profile)

A specification for a suite of high level communication protocols used for energy applications on local networks.
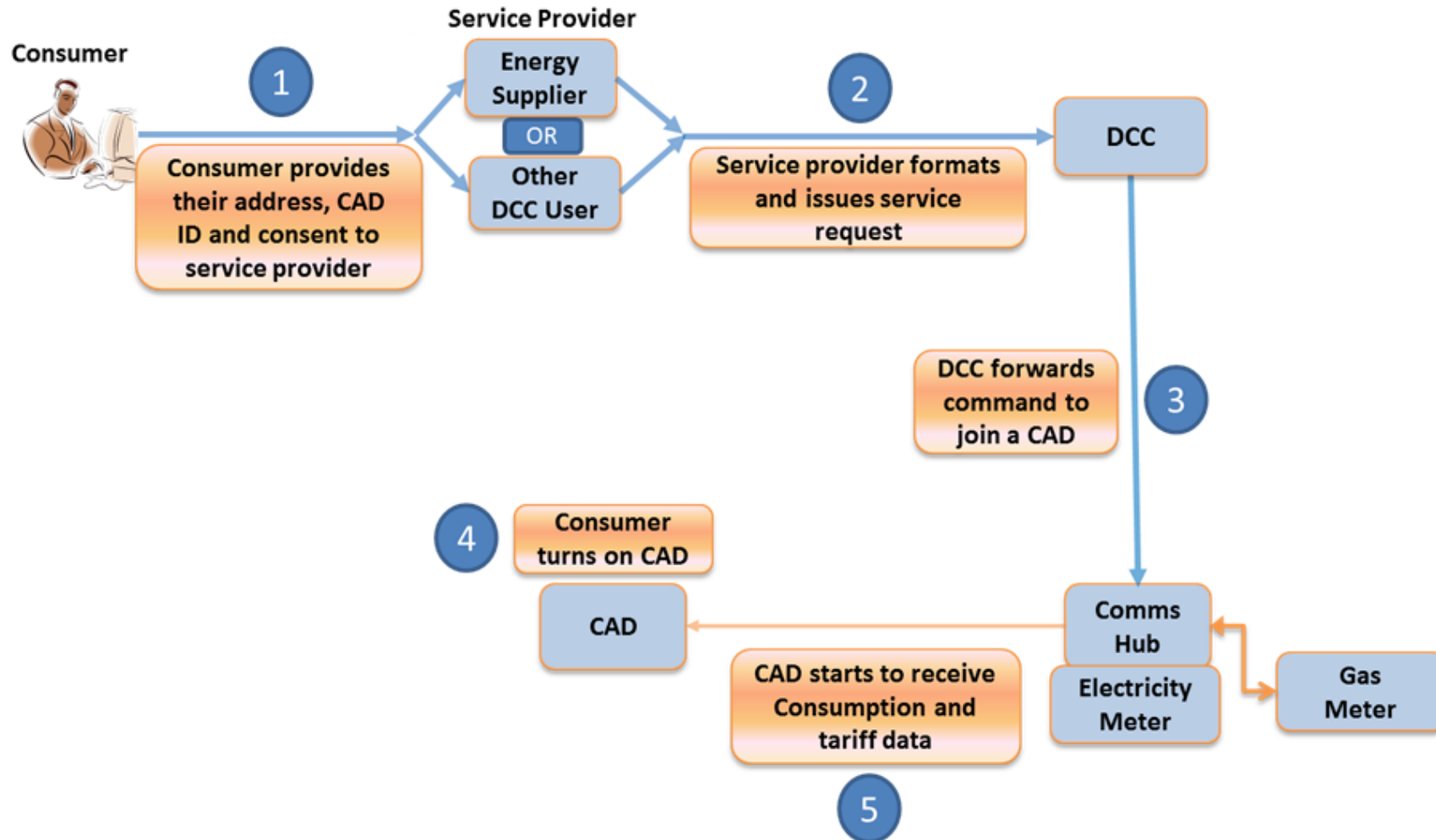
Annex 1: Consultation respondents

The following organisations submitted responses to the Consultation on the Process to Finalise the Great Britain Companion Specification:

Energy UK	EON	BEAMA	Pilot Systems
BG	NPower	ESTA	Arqiva
SSE	Good Energy	B Global	Consumer Futures
Scottish Power	Co-op Energy	Utilitywise	Ofgem
EDF	Tempus Energy	Northern Powergrid	DCC
PassivSystems	Energy Assets	BSI	

Annex 2: GBCS Development Milestones
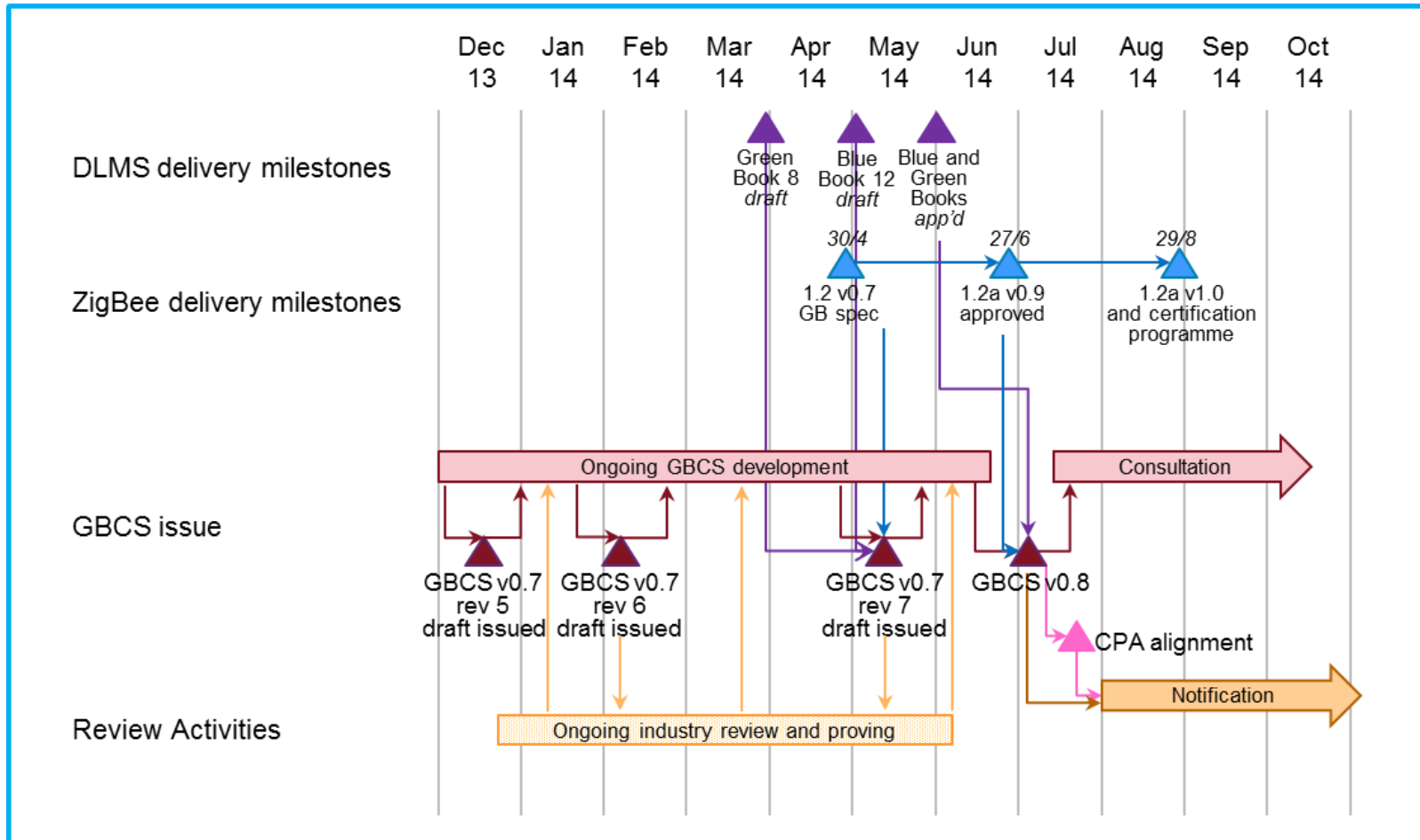
Annex 3: Remotely-initiated CAD pairing process overview