

# Consultation

on the 'Go Live' ECoS Transition  
and Migration Approach Document  
(ETMAD), ECoS Migration  
Reporting Regime (EMRR) and  
ECoS Migration Error Handling and  
Retry Approach (EMEHRA)

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# 1. Introduction

## 1.1. Purpose of this consultation

1. This consultation seeks stakeholder views on the proposed changes to the ECoS Transition and Migration Approach Document (ETMAD) or Smart Energy Code (SEC) Appendix AS. DCC previously issued the draft 'Go Live' ETMAD for industry consultation and subsequently published a consultation response document<sup>1</sup>.
2. Further changes have been made to the draft ETMAD which is now being re-issued for consultation alongside the drafting for the ECoS Migration Reporting Regime (EMRR) and the ECoS Migration Error Handling and Retry Approach (EMEHRA). These two documents have been developed by DCC as per obligations outlined in the 'Go Live' ETMAD.
3. The 'Go Live' ETMAD itself requires DCC to produce and maintain an EMRR that will, amongst other things, define the reports provided to Supplier Parties showing successful and failed migrations and also those Device Models deemed to be Non-Migratable. The EMRR has been developed as a stand-alone product defining the frequency and format of reporting to Supplier Parties.
4. The 'Go Live' ETMAD also requires DCC to produce and maintain an EMEHRA which will define the triage approach to be taken by DCC where there is a Failed Migration and the resolution activity that Supplier Parties should take in certain circumstances.
5. The 'Go Live' ETMAD describes the process for maintaining these documents post ECoS go live, with industry consultation required for material changes and an appeals route to the Department of Business, Energy and Industrial Strategy (BEIS). A similar approach is therefore proposed for approving the initial EMRR and EMEHRA, whereby DCC, following closure of this consultation, will share with BEIS a summary of consultation responses received and any changes to the EMRR and EMEHRA for approval. In addition, DCC will provide a summary to all stakeholders once we have discussed consultation responses with BEIS and determined next steps.
6. This consultation overview document summarises and seeks stakeholder feedback on the updated 'Go Live' ETMAD and proposed EMRR and EMEHRA documents published as part of this consultation document. The designation of these documents will be accompanied by the designation of other SEC Subsidiary Documents which need to be modified on the ECoS Service Live Date and upon which the DCC consulted on 24 September 2021 and concluded on 9 February 2022<sup>2</sup>.
7. In parallel with this consultation, DCC will continue engagement with industry via regular drop-in sessions and industry fora. Questions raised through these meetings have been collated into a set of 'Frequently Asked Questions' which are available on the DCC website<sup>3</sup>.
8. The closing date for this consultation is 18 January 2023.

<sup>1</sup> <https://www.smartdcc.co.uk/consultations/response-to-the-dcc-consultation-on-the-draft-go-live-version-of-the-ecos-transition-and-migration-approach-document-etmad-sec-appendix-as/>.

<sup>2</sup> <https://www.smartdcc.co.uk/consultations/conclusions-on-the-sec-subsiary-document-changes-required-for-the-enduring-change-of-supplier-ecos-arrangements-and-consultation-on-date-for-re-designation-of-certain-documents/>

<sup>3</sup> <https://www.smartdcc.co.uk/our-smart-network/current-programmes/enduring-change-of-supplier-ecos/>

## 1.2. Background and context

9. The ECoS arrangements are changes to the process that DCC follows when a consumer changes Supplier and the new Supplier seeks to take over control of the Smart Meter and other Devices in the consumer premises.
10. When a gas or electricity consumer with a Smart Meter switches Supplier, the security information held on the Smart Meter needs to be changed so that it relates to the new Supplier and not the old one. The processes that are currently in place for managing the change of security information held on Smart Meters are referred to as the Transitional Change of Supplier (TCoS) processes and they are administered by part of the DCC Systems known as the “Change of Supplier Party” (CoS Party).
11. As their name suggests, the existing TCoS processes were intended to be temporary. Changes to replace the existing TCoS arrangements to the enduring solution are already underway. Following a direction issued by the Secretary of State under condition 13A of the DCC licence, on 1 August 2019 the DCC published a consultation on its draft plan for its delivery of the ECoS arrangements.
12. In 2021, DCC undertook a replanning exercise, resulting in changes to the ECoS Joint Industry Plan (JIP) milestones being issued for consultation in January 2022. The outcome from this replanning exercise and subsequent consultation was a revised set of JIP milestones, including an ECoS Service Live Date of 30 June 2023. Final approval for new ECoS JIP milestones was provided by the Smart Metering Delivery Group on 10 March 2022.

### Development of SEC provisions

13. The introduction of the ECoS arrangements requires changes to the SEC main body as well as to several SEC Subsidiary Documents. BEIS published a consultation document on changes to the SEC main body required for the ECoS arrangements on 1 April 2021. The BEIS response to its consultation was published on 15 June 2021<sup>1</sup>. The SEC main body changes and the initial version of the ETMAD came into effect on 25 October 2021. The effect of the initial version of ETMAD was primarily to suspend these main body SEC changes prior to ECoS Live.
14. Additionally, in early 2022, DCC concluded a consultation on the SEC Subsidiary Document changes required for the ECoS arrangements. This covered changes to a number of SEC appendices including the Service Request Processing Document, Threshold Anomaly Detection Document, DCC User Interface Specification and the Inventory Enrolment and Decommission Procedures. This consultation ran from 24 September 2021 to 5 November 2021 and DCC published its conclusions document on 9 February 2022<sup>2</sup>.

<sup>1</sup> <https://smartenergycodecompany.co.uk/latest-news/beis-consultation-response-on-changes-to-the-sec-for-the-ecos-and-certain-security-provisions-and-direction-to-re-designate-the-smki-interface-design-specification/>

<sup>2</sup> <https://www.smartdcc.co.uk/consultations/conclusions-on-the-sec-subsiary-document-changes-required-for-the-enduring-change-of-supplier-ecos-arrangements-and-consultation-on-date-for-re-designation-of-certain-documents/>

15. Finally and as mentioned above DCC recently published a response in relation to a consultation on the 'Go Live' version of the ETMAD that will be re-designated to take effect at the commencement of the ECoS Migration. The 'Go Live' ETMAD will be used to control the process of transition and migration to the new ECoS arrangements and will:
- a) cease the suspension of the ECoS main body changes that have been introduced into the SEC;
  - b) set out the arrangements whereby CoS Update Security Credentials Service Requests (SRV 6.23) are processed differently by DCC depending on whether the target Device holds Device Security Credentials that are ECoS related or TCoS related;
  - c) introduce the EMRR and EMEHRA documents, including details of the ongoing maintenance requirements; and
  - d) deal with other migration related matters.
16. The previous 'Go Live' ETMAD consultation introduced the concept of the EMRR and EMEHRA, with questions asked regarding the governance approach. We received broad support for the approach to maintaining these documents, with comments provided by industry respondents on the content of the documents feeding into the development of the attached documentation.
17. The re-designation of SEC Subsidiary Documents to support the new ECoS arrangements (including the Go Live ETMAD) is due to take place at the new ECoS Service Live Date of 29 June 2023, which marks the point at which TCoS to ECoS migration can legally commence. This is also the point where the EMRR and EMEHRA will also become effective.

## 2. Contents of the EMRR

18. As outlined above, the EMRR will define the reports provided to Supplier Parties showing successful and failed Migrations and also those Device Models deemed to be Non-Migratable. A defined process for managing change to the EMRR has been set out in the draft 'Go Live ETMAD', in recognition of the need for Supplier Parties to prepare processes to consume data relating to ECoS Migration. Following ECoS go live, any potential changes to the data items contained in the reports detailed within the EMRR, would be subject to industry consultation.
19. The information contained within the EMRR, attached to this consultation document, does not represent the entire scope of reporting that will be provided by DCC as ECoS Migration progresses. In addition to the defined reports set out within the EMRR, DCC will publish a list of Non-Migratable Device Models, for wider industry visibility. Management reporting relating to the overall progress of the ECoS Migration activity will also be made available to the relevant SEC /industry committees and BEIS. This has not been defined within the attached EMRR in order to provide flexibility and the right level of detail, when required, with management reporting requirements agreed directly between DCC and the relevant governance body.
20. Reporting to Meter Asset Providers is also not defined in the EMRR and is instead directly reflected in the SEC Clause H17.5, which is being introduced as a result of SEC Modification Proposal 181. The list of data items set out in this clause will be extended by provisions in the ETMAD to include data items related to the ECoS Migration status of individual Devices during the ECoS Migration Period.

21. Full detail of each report is included in the EMRR itself. In summary the following reports are included:

Ref	Name	Distribution	Frequency
ECOSMIG-001	Detail Report: ECoS Migrations Completed Successfully	Responsible Supplier	Daily
ECOSMIG-002	Detail Report: ECoS Migrations Completed Unsuccessfully	Responsible Supplier	6 hours
ECOSMIG-003	Detail Report: Gaining Supplier Devices History	Responsible Supplier	Monthly
ECOSMIG-004	Summary Report: Device Count by Non Migratable Device Model	Responsible Supplier	Weekly
ECOSMIG-005	Summary Report: ECoS Migration Activity for the Previous Week	Responsible Supplier	Weekly
ECOSMIG-006	Detailed Report: Newly Installed ECoS Devices	Responsible Supplier	Monthly

22. Views are being sought via this industry consultation on both the scope and timing of each report.

#### **Report Recipients**

23. The ETMAD refers to the Responsible Supplier as being the organisation who will receive reports defined in the EMRR and should endeavour to resolve issues which led to the Failed Migration of Devices, in accordance with the EMEHRA.
24. In developing the EMRR and the EMEHRA documents, DCC has identified a scenario where this position may not be the most appropriate i.e., ECoS Migration relating to Gas Proxy Function (GPF) Devices. The SEC does not make it clear who is the Responsible Supplier for the Gas Proxy Function in circumstances where there is no Gas Smart Metering System installed in the premises.
25. DCC is therefore proposing that bespoke rules are introduced via the ETMAD relating to ECoS Migration of GPF Devices, as follows:
- a) Where a Gas Smart Meter is connected to the Communications Hub, then reports relating to the GPF Device will be issued to the Gas Supplier.
  - b) Where a Gas Smart Meter is not connected to the Communications Hub, but there is an Electricity Smart Meter, then reports relating to the GPF Device will be issued to the Electricity Supplier.
  - c) Where there is no Smart Meter connected to the Communications Hub, there will be no reports issued.

26. The recipient of the reports set out in paragraph 21, will be responsible for resolution activities assigned to the Responsible Supplier via the EMEHRA document (noting that DCC is responsible for hardware and software issues impacting the Communications Hub).
27. A specific question has been included later in this consultation document regarding this proposed approach. Once agreed, the outcome of the consultation will be fed into revised provisions to be reflected in the ETMAD itself.

### 3. Contents of the EMEHRA

28. As outlined above, the EMEHRA will define the triage approach to be taken by DCC and its service providers where issues arise during ECoS Migration and the resolution activity that Supplier Parties should take.
29. As defined within the 'Go Live' ETMAD, migration of a Device is comprised of four separate steps:
- a) the instruction from the Migration Control Centre to the TCoS Service Provider to initiate ECoS Migration;
  - b) review by the TCoS Service Provider to confirm that ECoS Migration can commence;
  - c) replacement of the Device Security Credentials that pertain to the TCoS Party with those that pertain to the ECoS Party on the relevant Device; and
  - d) confirmation received from both the ECoS Service Provider and TCoS Service Provider that ECoS Migration has completed successfully.
30. Issues can occur at any stage within the process outlined above. The EMEHRA makes a distinction between different types of issue that may arise during the end to end ECoS Migration process, including:
- a) errors associated with ancillary systems and processes linked to the ECoS Migration which may prevent ECoS Migration from progressing e.g., sharepoint issues. These errors may impact one or more Supplier Parties and will require DCC (or its service providers) to undertake remediation activities via the standard service management arrangements;
  - b) errors associated with ECoS Migration systems and processes which prevent the ECoS Migration from progressing as expected e.g., files provided by the Migration Control Centre with an invalid filename or structure. These errors may impact one or more Devices and will require DCC (or its service providers) to undertake remediation activities via the standard service management arrangements;
  - c) Device data validation failures, where the ECoS Migration request from the Migration Control Centre for a specific Device is rejected. This may require remediation activities to be completed before ECoS Migration is re-tried with an ECoS Migration Incident raised and progressed via the standard service management arrangements. Alternatively, in some scenarios the validation failure will reflect a transient issue, such as imminent CoS event, allowing the Device to be included in a later migration batch with no manual intervention;
  - d) Failed Migrations where the TCoS Service Provider attempts to replace the Device Security Credentials (TCoS to ECoS certificate replacement) and an error code is generated.
31. The majority of issues associated with ECoS Migration will be handled internally between DCC and its service providers, with controls built into the systems and processes to address issues.



Once the issue has been resolved, Devices will be available for re-selection, with ECoS Migration attempted in a later batch.

32. Supplier Party remediation activities will generally focus on scenarios where failures arise when the TCoS Service Provider attempts to replace the Device Security Credentials on individual Devices. Supplier Parties will be informed of these errors via standard reporting as defined in the EMRR.
33. As set out in the EMEHRA, the remediation required by Supplier Parties will depend on the type of Device and the issue identified. The EMEHRA focuses on the resolution path for both technical firmware issues impacting Device Models and communication issues impacting individual Devices, as explained in the following paragraphs.
34. If issues are identified with a Device Model which indicates that the TCoS to ECoS certificate transfer will not be possible for any Device of that Device Model, then the Device Model will be classified as Non-Migratable and either DCC or the Responsible Supplier should enact a firmware upgrade to facilitate ECoS Migration. In this scenario DCC is responsible for firmware issues associated with GPF Devices; and Suppliers are responsible for firmware issues associated with other Devices. As noted in the response to the recent ETMAD consultation, DCC has been undertaking initial proving activities and have not identified any Device Models that are unable to process a TCoS to TCoS certificate replacement, although this analysis is ongoing. It is therefore assumed that such certificate transfer issues will be rare.
35. In terms of wider issues impacting individual Devices, we expect the most common issue will be a communication failure preventing the certificate replacement command from being applied to the Device. A re-try strategy has been developed and defined within the EMEHRA which builds in automated re-try functionality over a short period (e.g. 5 minute intervals), with increasing intervals to mitigate failures due to intermittent communication issues. If the command is not successfully processed within a single session i.e. before the command is timed out, the Responsible Supplier will be informed of the Failed Migration through the ECoS reporting outlined in the EMRR. Supplier Parties are expected to monitor reports and investigate instances where Failed Migrations are reported.
36. Where the ECoS Migration attempt fails, DCC will make further attempts. We expect these attempts to take place approximately a month apart; however, this timescale may be amended as the overall ECoS Migration programme progresses. This mitigates the risk that intermittent communication issues have affected the ECoS Migration attempt and allows time for Supplier Parties and / or DCC to address communication issues. DCC will provide management reporting to the SEC Panel (or its sub committees) and BEIS to enable wider assurance activities to be applied where issues impacting specific Devices are not addressed.

#### **Transfer of TCoS Party Private Keys**

37. DCC is developing a robust and comprehensive approach to manage the ECoS Migration for all installed and commissioned TCoS Devices. The reporting defined in the EMRR and the supporting error resolution activities defined in the EMEHRA will ensure DCC and Supplier Parties have the information required to resolve issues impacting ECoS Migration. However, the de-commissioning of the TCoS Party, which is planned for October 2024, introduces a risk that 'hard to migrate' Devices or those installed late in the ECoS Migration Period will be stranded with TCoS Certificates which will result in them losing smart capabilities following a future CoS event.
38. To mitigate this risk, we continue to consider the option of transferring the TCoS private keys to the ECoS Party, enabling the ECoS Party to process SRV6.23s relating to TCoS Devices. In assessing this option, we are considering both the cost impact of this transfer and any associated additional security risks that this may introduce. This consultation is not requesting views on the merits of the TCoS private key transfer; however, further changes to the 'Go Live' ETMAD have been proposed to recognise this ongoing activity, as set out below.



## 4. Updated 'Go Live' ETMAD

39. As detailed above, DCC issued an initial consultation on the 'Go Live' ETMAD in April 2022. In response to this consultation DCC acknowledged that a significant amount of work was ongoing, with development of the EMRR and EMEHRA and consideration of the feasibility for the TCoS Certificate private keys to be transferred to the ECoS Party. Therefore, we did not conclude on the drafting of the 'Go Live' ETMAD at that stage and instead highlighted where work was ongoing.
40. Through the development of the EMRR and EMEHRA, together with further consideration of the responses to the earlier ETMAD consultation, we have identified a number of amendments to the draft 'Go Live' ETMAD. These have been included in the draft 'Go Live' ETMAD issued alongside this consultation summary document and have been highlighted as redline changes for ease of identification.
41. A summary of the proposed changes is provided below, together with the rationale for each change:
- a) Amendment to the name of the ECoS Migration Error Handling and Retry Approach document to reflect the context of the product.
  - b) Addition of drafting requiring both Supplier Parties and DCC to ensure that manufacturers update their processes to initiate production of ECoS Devices as soon as reasonably practicable following receipt of the ECoS Manufacturing Pack from the DCC. This change has been made to recognise a gap in the earlier draft document.
  - c) Addition of a clause explaining the interpretation of the term Responsible Supplier in relation to GPF Devices. This change was identified during the development of the EMRR and EMEHRA and is further explained in paragraph 25 above.
  - d) Addition of a clause capturing the link to Meter Asset Provider reporting referenced in modification MP181. This change was identified through the earlier draft 'Go Live' ETMAD consultation and is further explained in paragraph 20 above.
  - e) Removal of reference to documents being published on the DCC Website to allow flexibility for information to be published in the most user friendly location.
  - f) Addition of a reference to Supplier Parties within the description of the scope of the EMRR, to differentiate between the reporting to Supplier Parties in the EMRR from the wider management reporting to BEIS and the SEC Panel (or sub groups).
42. In addition to these minor changes, we are also proposing to remove the requirement on Supplier Parties to cease installation of TCoS Devices and the equivalent requirement on DCC to cease provision of Communications Hubs with GPF Devices holding TCoS Certificates. This is being proposed on the basis that Devices will no longer be stranded if they retain TCoS Certificates should the TCoS private key transfer take effect. However, we acknowledge that investigation on this risk mitigation regarding the private key transfer is ongoing.
43. Whilst these clauses are being removed, it is recognised that DCC will continue to manage ECoS Migration within the ECoS Migration Period, with acknowledgment that it may not be possible to migrate all TCoS Devices, including those installed late in the period, ahead of de-commissioning of the TCoS Party. The removal of this clause does not negate the requirements on Supplier Parties to manage their inventory, prioritising the installation of TCoS Devices to use up existing stock, and endeavour to resolve issues preventing ECoS Migration. Further strengthening of these obligations could be included in a subsequent release of the ETMAD post ECoS go live, if deemed necessary.

## 5. Next Steps and Approval of the EMRR and EMEHRA

44. Following the closure of this consultation, DCC will consider respondents' views, and subject to the consultation responses received, submit to BEIS the 'Go Live' ETMAD, EMRR and EMEHRA documents that it considers suitable for approval, including why DCC considers the draft to be fit for purpose; copies of the consultation responses received; and any areas of disagreement that arose during the consultation process that have not been resolved.
45. Following BEIS approval, these documents will become effective on the ECoS Service Live Date (in the case of ETMAD, following re-designation by the Secretary of State) and will continue to be effective until such time as any further versions of the EMRR and EMEHRA are approved in accordance with the change control processes set out within the 'Go Live' ETMAD. Similarly, any further versions of the ETMAD would be consulted, approved and re-designated in accordance with the process to develop any subsequent ETMAD for designation, which is outlined in Section G of the SEC (clause G11.6).

## 6. Questions for Respondents

46. DCC would like stakeholders' views on the following consultation questions:

<b>Q1</b>	Do you agree with the additional changes proposed to the 'Go Live' ETMAD? Please indicate any areas of disagreement and the reasons for them.
<b>Q2</b>	Do you agree with the proposed scope of the EMRR and the content of the reports defined? Please indicate any areas of disagreement and the reasons for them.
<b>Q3</b>	Do you agree with the approach proposed regarding reporting relating to Gas Proxy Function Devices as set out in paragraph 25 of this document?
<b>Q4</b>	Do you believe any additional reporting is required that is not currently specified within the EMRR? Please provide details of the required reporting and the rationale for inclusion.
<b>Q5</b>	Do you agree with the proposed content of the EMRHRA? Please indicate any areas of disagreement and the reasons for them.
<b>Q6</b>	Do you have any further comments to make regarding the 'Go Live' ETMAD, EMRR or EMEHRA documents?
<b>Q7</b>	Do you agree that the accompanying version of ETMAD should be re-designated at the ECoS Service Live Date (29 June 2023), or as soon as practicable within one month thereafter?

## 7. How to Respond

47. Please provide responses by 16:00 on 18 January 2023 to DCC at [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk), using the attached consultation response template.
48. Consultation responses may be published on our website [www.smartdcc.co.uk](http://www.smartdcc.co.uk). Please state clearly in writing whether you want all or any part, of your consultation to be treated as confidential. It would be helpful to us if you could explain to us why you regard the information you have provided as confidential.
49. Please note that responses in their entirety (including any text marked as confidential) may be made available to BEIS and the Gas and Electricity Markets Authority (the Authority).
50. Information provided to BEIS or the Authority, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Regulations 2004). If BEIS or the Authority receive a request for disclosure of the information we/they will take full account of your explanation (to the extent provided to them), but we/they cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.
51. If you have any questions about the consultation documents, please contact DCC via [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk).

## 8. Attachments

- Attachment 1: Draft 'Go Live' ECoS Transition and Migration Approach Document (ETMAD), including tracked changes from previous consultation.
- Attachment 2: Draft ECoS Migration Reporting Regime (EMRR).
- Attachment 3: Draft ECoS Migration Error Handling and Retry Approach (EMEHRA).
- Attachment 4: Response Template.