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Author: consultations@smartdcc.co.uk

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## 1. Executive Summary

- 1. Business Continuity Disaster Recovery (BCDR) Procedures help to ensure services can continue to be provided with as little disruption as possible for DCC customers and consumers in the event of unexpected outages. BCDR Tests help to prove that services can continue to function or be effectively recovered in the event of a disaster or unforeseen outage.
- 2. This document seeks your views on:
  - Our proposal to schedule 20 BCDR Tests between April 2025 and March 2026 10 of these tests will impact service availability for a total of 68 hours. The proposed testing schedule can be found in Annex One.
  - Our draft BCDR Test Approach document we have developed this in collaboration with Parties, to provide more information on the importance of testing and how we work to reduce the impact of test events. This document will support the progression of a recently proposed SEC Modification to improve the way we communicate with you on BCDR testing.
- 3. Parties are invited to respond to the consultation by 1700 on 10 January 2025 to DCC at <a href="mailto:consultations@smartdcc.co.uk">consultations@smartdcc.co.uk</a>.

## 2. Background

4. The Data Communications Company (DCC) is Britain's digital energy spine, supporting the transformation of the energy system. DCC is licensed by the Government and regulated by the energy regulator Ofgem to connect smart meters in homes and small businesses across Great Britain to a single secure, digital network. DCC supports the roll-out and operation of second-generation (SMETS2) smart meters, as well as the migration and operation of existing first-generation (SMETS1) meters onto our network

#### 2.1. The need for BCDR Tests

- 5. BCDR Procedures are a vital part of DCC services that provides resilience where unforeseen outages occur, and which ensures services can continue to be provided minimising the impact or disruption for DCC customers and consumers.
- 6. SEC Section H10.9 requires that DCC comply with the BCDR Procedures described in SEC Appendix AG<sup>1</sup>. It is that appendix which describes DCC Disaster Impacts, and the recovery action DCC should complete.
- 7. BCDR Tests allow for a formal assessment of procedures and provide confidence that in the result of a disaster, DCC can continue to provide services to customers. BCDR Tests also help to highlight areas for improvement so that the recovery actions are corrected and improved in preparation for any unforeseen real-world disaster.

### 2.2. Approach to BCDR Tests and improvements over time

- 8. We aim to test in ways that minimise disruption to Parties and as much as possible. Following engagement and customer feedback from previous years, new approaches have been considered and implemented to reduce the impact of BCDR Tests on DCC customers.
- 9. Over the last three years we have worked with customers to understand their concerns regarding BCDR tests and the outages thy can cause. We have worked to improve and amend our approach to BCDR Tests in efforts to reduce the impact on DCC customers. The changes made have included:
  - a. The removal of contingency time within a scheduled test
  - b. The removal of contingency dates from the testing schedule
  - c. Completing live tests during other periods of other planned downtime
  - d. Completing live BCDR tests with other BCDR Tests
  - e. Remaining on secondary infrastructure for longer durations
  - f. Utilising Planned Maintenance to validate and assess procedures
  - g. Implementing a risk-based approach which requires live testing only when necessary or when deemed to be required based on the size of the risk exposure to DCC and its services
- 10. DCC provides regular BCDR Test communications combined with the monthly maintenance communications. We engage with SEC Parties annually to provide details of the proposed BCDR Test Schedule and proposes a schedule covering April to March each year. This consultation presents

<sup>&</sup>lt;sup>1</sup> <u>SEC Appendix AG - Incident Management Policy</u>

- the proposed testing schedule covering 1st April 2025 to 31st March 2026 and provides the opportunity for Parties to comment and feedback on the testing schedule.
- 11. Previous consultations and engagement with Parties have helped to improve DCC's understanding of the impact caused by BCDR Tests and have highlighted the need to keep downtime to a minimum. This feedback has driven us to further consider how testing might be conducted in ways that continue to prove resilience, but which results in less disruption to services than has been experienced in the past.
- 12. DCC is seeking to provide improved information on the approach taken when assessing the requirements for testing and the scheduling of test events. Published alongside this document is our draft BCDR Test Approach document which provides an early sight of efforts to document our current testing approach.
- 13. Through 2024 we have worked in collaboration with Service Providers to reduce the volume of live tests impacting DCC customers and have reduced the originally scheduled 88 hours of downtime to 42 hours of downtime. This reduction has been enabled through:
  - h. Implementing a risk-based approach to testing, where desk-based exercises that do not impact the live production environment may be considered adequate
  - i. The scheduling of testing activities during periods where there is already planned downtime related to other activities
  - j. Completing testing and assurance activities where BCDR Procedures are implemented during Planned Maintenance.
- 14. DCC has historically considered that live testing is the most appropriate method since it most directly assesses the procedures that would be invoked in a real-world disaster. When BCDR Tests are completed on live environments they can result in system downtime where the Services, or a subset of them, are unavailable for the duration of the test. Testing can therefore often result in impacts to DCC customers. We have reassessed the assumption that live testing is always required and looked at alternative approaches where appropriate.
- 15. Live testing has traditionally involved two core activities. First, service provision is moved from primary infrastructure to secondary infrastructure (often described as failover), and the second activity sees service provision moved from the secondary infrastructure back to the primary infrastructure (often described as failback). This approach can result in two periods of outage, one for each infrastructure move. We have now considered where it may be technically feasible and appropriate for a single move, to ensure service can be maintained on the secondary infrastructure for a much longer period. This approach allows us to further reduce downtime.
- 16. These changes in approach, implemented for the 2024 schedule, will continue to be utilised in future planning. However, it is inevitable that some live testing will have to remain which will result in system downtime.
- 17. Where live testing is considered appropriate, DCC now evaluates whether testing can be combined with other system outages. We have also investigated opportunities to use Planned Maintenance procedures to validate BCDR procedures where some Service Providers execute failover and failback procedures as part of implementing system releases. Where these procedures allow for an assessment of BCDR procedures further tests may not be required.
- 18. For some BCDR Tests, the activity can be completed in parallel to (not part of) Maintenance activity. This can be completed where Planned Maintenance occurs, or where other Maintenance takes place.
- 19. Where live BCDR Tests cannot be reasonably run in parallel to other activities, the testing is scheduled over a period where customer impacts are as low as possible. For this scheduling we

consider the demand on DCC systems during a typical month, week or day to schedule test events at times where system demand is at its lowest and consumer impact is minimal. We are aware that testing will inevitably have an impact on some DCC customers but consider the scheduling to be the least disruptive as is possible.

- 20. Ideally, live tests would not conflict with the tests and system changes completed by DCC customers. In previous testing consultations, DCC has gathered details of Parties own testing activity and internal system changes which is used to schedule DCC live testing away from these activities. It is, however, not always possible to work around all conflicts due to the number of DCC customers and the varying approach each Party takes.
- 21. We have also taken steps to improve regular communication on BCDR Test activities and now include details of tests in the Monthly Maintenance Communications issued to all SEC Parties. This serves as a reminder of testing activities and the expected impact to services.
- 22. Detail of live testing is also included on the annual outage plan available to all Parties via DCC SharePoint.
- 23. We also provide the Forward Schedule of Change (FSC) to Parties through the Self Service Interface. BCDR Test dates are maintained on the FSC to ensure Parties have access to a single source of information for planned outage.

### 2.3. Future improvements

- 24. The need to prove resilience of future services is captured during the design phase so that testing impacts are considered early, and requirements can be designed which result in minimal disruption. New technologies offer greater opportunity for solutions to be implemented which do not require service impacting BCDR Tests.
- 25. We have worked to extend the scope of pre-go live resilience testing of new solutions, for example in future Communications Hub and Network Services, to reduce the risk of issues and incidents caused by initial BCDR Tests. However, while these pre-go-live testing activities can provide confidence in the BCDR Procedure they do not fully prove the resilience of in live Services and so the need to prove that resilience remains.
- 26. We are committed to future improvements that might help to reduce the impact of test events while retaining the ability to prove resilience, and we will keep under review our approach to BCDR Tests.

## 3. Consultation Proposals

## 3.1. BCDR Test schedule 1 April 2025 – 31 March 2026

- 27. The BCDR Test schedule covering 1 April 2025 to 31 March 2026 is provided in Annex One and provides details of the Service Provider completing the scheduled test and the likely impact of their testing. We have scheduled 20 test activities of which 10 will not result in additional impact to the provision of services, and 10 will impact the provision of services for a total of 68 hours.
- 28. In planning the testing and exercising schedule, we have endeavoured to keep any disruption caused by the testing activity to a minimum utilising the approach described. Where live testing is required, we have worked to avoid dates and times which would be the most disruptive to Parties use of DCC Systems.
- 29. Live tests are scheduled away from high volume installation days, but we note that some tests will fall on dates where some parties may wish to complete installations and where installations may not be possible. We consider that such dates, while potentially inconvenient to some Parties, are the least disruptive to Parties as a whole.

- 30. We also note that some of the proposed test dates may fall on dates where Parties are planning their own internal system changes. Based on information provided by Parties previously we consider that the proposed dates are the least disruptive to Parties as a whole.
- 31. In keeping disruption of services to a minimum for the April 2025 to March 2026 Schedule DCC has:
  - Risk-assessed any solutions which have achieved a successful live BCDR Test within the past
     12 months and determined which Service Providers are eligible for an alternative, non-disruptive method of testing and exercising
  - b. Agreed which Service Provider solutions will be executed during Planned Maintenance windows
  - c. Sought additional opportunities for parallel tests
  - d. Consulted with Service Providers on the potential to remain on alternate infrastructure for up to 12 months
  - e. Avoided testing solutions which impact prepayment services during the winter months (November to February) and in the weeks preceding quarterly tariff events
  - f. Scheduled BCDR Tests related to Vodafone 4G Services to 4G Maintenance<sup>1</sup>
- 32. As a result of the new approaches to BCDR Tests and exercises, including how they are completed and the type of test conducted, the amount of downtime caused by testing has been kept to a minimum. This approach has kept the impact time to a total of 68 hours.
- 33. Where further opportunities to are available to reduce the impact of the proposed 2025 2026 BCSR Test schedule we will consider if they are appropriate. We will provide as much notice as possible of any change where these opportunities are implemented.

#### **Question One**

Do you agree with the proposed dates and timing of the BCDR Test activity provided in the BCDR Test Schedule? Please provide rationale for your response.

### 3.2. BCDR Test Approach document

34. In collaboration with Parties, we have documented our approach to BCDR Tests and have published our draft BCDR Test Approach document alongside this consultation. The approach document provides Parties with additional insight into our approach to proving resilience and conducting BCDR Tests.

#### **Question Two**

Having reviewed the *draft* BCDR Test Approach document, do you have any comments on the approach, or any additional sections / details that should be included in final documentation? Please provide rationale for your response.

<sup>&</sup>lt;sup>1</sup> The 4G Maintenance referred to here will not impact services to more than 100k Communications Hubs and is therefore not considered Planned Maintenance or Unplanned Maintenance. Since this Maintenance is scheduled in advance DCC intends to engage with SEC Operations Sub-Committee on proposals to notify this Maintenance activity.

## 4. Next Steps

### 4.1. BCDR Test Schedule next steps

- 35. This consultation will close at 1700 on 10 January 2025, following which DCC will review responses and consider if changes to the schedule are required.
- 36. In Early 2025, following consultation closure and any further engagement with Parties, DCC will provide notice of the finalised BCDR Test schedule to all SEC Parties. This will be issued at least 60 working days' before the first scheduled test.
- 37. Live BCDR Test events causing service disruption will also be detailed on the annual outage plan available on the DCC SharePoint.

### 4.2. BCDR Test Approach document and proposed SEC Modification

- 38. Considering the change in approach to BCDR Tests, including where individual tests will not result in additional service impacts, DCC has recently proposed a SEC Modification (not yet assigned a reference number) to consider the requirements of engagement and notification regarding BCDR Tests. This Modification will allow for collaboration across Parties to consider amendments to the current requirements and it is hoped will result in improvements in the efficiency of engagement.
- 39. In addition, the SEC Modification will also consider the formalisation for the production and availability of the draft BCDR Test Approach document with a requirement to review the approach on a regular basis. This would ensure DCC customers have access to details of our approach to testing while also ensuring improvements can be considered and implemented where appropriate and where technology changes over time. Responses to question two will therefore be made available for consideration under this proposed SEC Modification.
- 40. We will work with parties and provide support at the appropriate forums for the further consideration and development of the modification proposal.

## 5. How to Respond

- 41. Please provide responses by 1700 on 10 January 2025 to DCC at consultations@smartdcc.co.uk.
- 42. Consultation responses may be published on our website 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 if you could explain to us why you regard the information you have provided as confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department for Energy Security and Net Zero (The Department) and the Gas and Electricity Markets Authority (the Authority). Information provided to The Department 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 Information Regulations 2004). If The Department 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.
- 43. If you have any questions about the consultation documents, please contact DCC via consultations@smartdcc.co.uk.

# 6. Annex One - April 2025 to March 2026 BCDR Test Schedule

Service Provider (Service)	Live test	Combined with other	Date and time period	Hours of service impact	Test description	SMETS1 / SMETS2 / Both	Key service impact area (region or SMETS1 cohort)**	
		activity		caused by BCDR*			Pre-Payment	Install and Commission
Accenture (4G Device Manager)	Yes	No	Sunday 04 May 2025 0900 - 1500	6 hours	Failover	SMETS2	4G S&C	4G S&C
Accenture(4G Device Manager)	Yes	No	Sunday 11 May 2025 0900 - 1500	6 hours	Failback	SMETS2	4G S&C	4G S&C
VMo2 (CSP C&S)	Yes	Yes	Quarterly	0 hours	Failover / failback. Executed in support of Planned Maintenance	SMETS2	Not applicable	Not applicable
Accenture (ECoS)	Yes	Yes	Quarter 2 2025	0 Hours	Failover / failback. Executed during High Impact Maintenance Window	SMETS2	Not applicable	Not applicable
BT (SMKI)	No	No	Quarter 2 2025	0 hours	Simulation testing	SMETS1/2 & SMKI	Not applicable	Not applicable
Arqiva (CSP N)	Yes	No	Sunday 08 June 2025 0900 - 1700	8 hours	Failover	SMETS2	CSP N	CSP N
Vodafone (4G CSP C&S)	Yes	Yes	Tuesday 10 June 2025 2000 - 0200	0 hours	Network link resilience testing (AWS)	SMETS2	Not anticipated	Not anticipated

Service Provider (Service)	test with service) test other	Combined with other	ı er	Hours of service impact caused by BCDR*	Test description	SMETS1 / SMETS2 / Both	Key service impact area (region or SMETS1 cohort)**	
		activity					Pre-Payment	Install and Commission
Arqiva (CSP N)	Yes	No	Sunday 15 June 2025 0900 - 1700	8 hours	Failback	SMETS2	CSP N	CSP N
Vodafone (4G CSP C&S)	Yes	Yes	Tuesday 17 June 2025 2000 - 0200	0 hours	Network link resilience testing (DSP)	SMETS2	Not anticipated	Not anticipated
Vodafone (4G CSP C&S)	Yes	Yes	Tuesday 8 July 2025 2000 - 0200	0 hours	Network link resilience testing (Azure)	SMETS2	Not anticipated	Not anticipated
Vodafone (4G CSP C&S)	Yes	Yes	Tuesday 15 July 2025 2000 - 0200	0 hours	Network link resilience testing (Gamma)	SMETS2	Not anticipated	Not anticipated
Secure (MOC S1SP)	Yes	No	Saturday 26 July 2025 2000 - 0200	6 hours	Failback. DCC is investigating options for non-disruptive testing if appropriate	SMETS1	MOC	Not applicable
CGI (DSP)	Yes	No	Sunday 19 October 2025 0900 - 1700	8 hours	Failover	SMETS1/2 & SMKI	All Services UK wide	All Services UK wide
CGI (DSP)	Yes	No	Sunday 26 October 2025 0900 - 1700	8 hours	Failback	SMETS1/2 & SMKI	All Services UK wide	All Services UK wide
Vodafone (4G CSP C&S)	No	No	Quarter 4 2025	0 hours	AWS Resilience Hub Assessment	SMETS2	Not applicable	Not applicable
Capgemini (DCO)	Yes	No	Sunday 01 March 2026 0900 - 1500	6 hours	Failover and failback	SMETS1	IOC MOC FOC	Not applicable

Service Provider (Service)	Live test	Combined with other	Date and time period	Hours of service impact	•	SMETS1 / SMETS2 / Both	Key service impact area (region or SMETS1 cohort)**	
		activity		caused by BCDR*			Pre-Payment	Install and Commission
DXC (FOC S1SP)	Yes	No	Sunday 08 March 2026 0900 - 1500	6 hours	Failover	SMETS1	FOC	Not applicable
DXC (FOC S1SP)	Yes	No	Sunday 15 March 2026 0900 - 1500	6 hours	Failback	SMETS1	FOC	Not applicable
CGI SIE (IOC S1SP)	No	No	Quarter 1 2026	0 Hours	Simulation testing	SMETS1	Not applicable	Not applicable
Capgemini (Commissioning Party SMETS1)	No	No	Quarter 1 2026	0 hours	Simulation testing	SMETS1	Not applicable	Not applicable

<sup>\*</sup>Details the length of time allowed where services could be impacted by a BCDR Test event. Where live tests are scheduled to be completed alongside other system impacting activity, we have noted 0 hours, because that system outage is captured through other activity and not primarily caused by the BCDR Test.

<sup>\*\*</sup> Details the service impact of BCDR Testing where that service is not expected to be available (prepayment vend and install and commission activity). Where live tests are scheduled to be completed alongside other system impacting activity, we have noted not applicable, because that system outage is captured and notified through other activity and not primarily caused by the BCDR Test.