

The Voice of the Networks



**DNO Common
Network
Asset Indices
Methodology
Version 2.0
Draft**

**RIIO-ED2
Consultation**

1 September 2020

Common Network Asset Indices Methodology Proposed Modifications for RIIO-ED2

1 Purpose and Objective

The purpose of this consultation is to seek the views of Stakeholders as to the proposed incremental changes to the Common Network Asset Indices Methodology (CNAIM) from current version (v1.1), as directed for implementation by Ofgem in May 2017, and proposed revised version (v2.0) that modifies CNAIM so that it is suitable for RIIO-ED2 regulatory processes. The responses will be used to support the DNOs submission of the revised version to Ofgem to meet their requirements outlined in Ofgem's Sector Specific Methodology Consultation (SSMC) published in July 2020.

1.1 Executive Summary

The current version of CNAIM (v1.1) is used for the regulatory reporting of, and assessment of delivery against, the RIIO-ED1 Network Output Measures. This consultation is not a consultation on changes to the version of CNAIM that will be applicable to the RIIO-ED1 regulatory processes as it is proposed that the version of CNAIM used for this purpose shall remain unchanged in order to ensure stability in the RIIO-ED1 processes.

In preparation for the RIIO-ED2 period, the Distribution Network Operators (DNOs) have been asked by Ofgem under the SRRWG Committee to review and revise the current Version of CNAIM v1.1 to make it fit for purpose for the RIIO-ED2 period to operate under the NARMs Incentive regime. The changes being proposed will align the CNAIM with the Ofgem requirements for use with the NARMs (Network Asset Resilience Metric) framework as proposed within the SSMC. The DNOs will propose to Ofgem that CNAIM v2.0 will be used to create the required NARMs return for RIIO-ED2 and beyond for reporting against the NARMs requirements in the RIIO-ED2 period (1 April 2023 to 31 March 2028). This is to ensure that the same version of CNAIM is used consistently throughout the RIIO-ED2 process. It is this version of CNAIM and its applicability to RIIO-ED2 processes that is the subject of this consultation.

As they are only applicable to the use of CNAIM in RIIO-ED2, the proposed revisions to CNAIM are not covered by the current licence requirements, which are only applicable to the RIIO-ED1 period. As there is no specific methodology to follow for consultation on the methodology for the RIIO-ED2 period, the DNOs have agreed to follow the requirements of Standard Licence Condition (SLC 51) part I, for the RIIO-ED1 period in consulting on these proposals. It is anticipated that Ofgem will suitably revise the current requirements of the DNO Standard Licence Condition (SLC) 51 as part of the preparation for the RIIO-ED2 period. The development of CNAIM v2.0 has been jointly undertaken by the six GB DNOs, and NIE Networks with input from Ofgem as to their RIIO-ED2 specific needs.

SLC 51 of the RIIO-ED1 price control requires the DNOs, when proposing changes to the CNAIM methodology to consult on these changes and submit to the Authority recommendations for changes and the feedback of stakeholders because of the consultation.

SLC 51 of RIIO-ED1 established the requirements for the creation and maintenance of CNAIM.

The objectives of the CNAIM are to;

(a) facilitate the achievement of the Network Asset Indices Methodology Objectives;

(b) enable the objective evaluation of performance against the Network Asset Secondary Deliverables;

(c) be implemented by the licensee through appropriate amendment of its own Network Asset Indices Methodology in accordance with the provisions of Part A of this condition; and

(d) be capable of being modified from time to time in accordance with the provisions of Part I of this condition. ¹

These requirements will need to be maintained and if appropriate amplified upon within the regulatory framework to be put in place for the RIIO-ED2 period. In order to ensure continuity of the processes established in the RIIO-ED1 period, the DNOs have continued to work collectively to develop a proposal for CNAIM which is based on the existing v1.1 but takes into account the additional requirements required by the authority plus learning from operating the methodology by the DNOs.

The approach created in v1.1 has been enhanced and v2.0 continues to allow for the assessment of the health of assets which is converted to a Probability of Failure (PoF) value. This is then combined with an assessment of the Consequences of asset Failure (CoF) to produce an overall monetised risk score for each asset within the scope of the Methodology. These risk scores are additive and form the basis for an overall view of both current and long term network health.

The review of CNAIM has resulted in several significant changes as well as more minor changes. Key to the significant changes are:

- The risk values assigned to an asset is now capable of being expressed as a “long term risk” value permitting better understanding of the risk mitigation an intervention from a DNO has on the overall risk presented to the operator’s network. – See
 - Chapter 5 of CNAIM v2.0
 - Section 5 of the Explanation Document
- Revision of the calibration of the values associated with the Health Index depiction in the 5x4 matrices – See
 - Section 5.3 of CNAIM v2.0
 - Sections 6 and 8 of the Explanation Document
- Standardisation of the way in which Consequence of Failure values are used by the DNOs – See
 - Section 7.2 of CNAIM v2.0
 - Section 8 of the Explanation Document
- Revision of the calibration of customer numbers and Maximum Demands - See
 - Section D 4.1 of CNAIM v2.0
 - Section 9 of the Explanation Document

A full list of the changes that are proposed can be found in section 3.2 of this document.

Additionally, for RIIO-ED2 the DNO’s have agreed that the discretion on the reporting against asset types available in ED1 will be removed and therefore all asset groupings will have a report for the ED2 period². This is reinforced by the requirement proposed in the SSMC proposals for DNOs to report against 61 Asset Register categories. The methodology will be revised to improve the accuracy of reporting. All the revisions and their justification are detailed in the document entitled:

Proposed CNAIM v2.0 Methodology Changes Explained.

¹ 51.6 in

<https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Distribution%20Consolidated%20Standard%20Licence%20Conditions%20-%20Current%20Version.pdf>

² Where the DNO does not operate an asset then a nil return will be reported.

A further consideration for the revised methodology is the way the DNOs propose to refresh the calibration. V1.1 uses financial values in FY12/13 currency values. For the v2.0 at the time of the consultation these values have been inflated to FY18/19 values to permit the document to be completed. It should be noted that as the FY18/19 values are not available the calibration of the v2.0 used for consultation is calibrated in FY12/13 values. The DNOs propose to update the calibration without any further consultation once the values have been provided and the methodology is updated.

At the end of the consultation the DNOs will:

- collate the responses received
- Make any reasonable revisions to the Proposed Methodology
- Submit the proposed final version of CNAIM v2.0 together with the DNO CNAIM v2.0 Methodology Explained to Ofgem for their consideration
- Seek Ofgem on behalf of the Authority to direct the use of CNAIM v2.0 for the development of NARMs for RIIO-ED2 and Reporting through the RIIO-ED2 period.

All DNOs have worked collectively on the development of the Methodology and its implementation. The proposed changes have been raised, reviewed and agreed in a DNO Working Group, with Ofgem input where appropriate, and these proposals are tabled on behalf of all GB licences.

It is our recommendation that the Methodology is duly approved with these amendments incorporated.

The consultation is issued on behalf of the following Companies that, between them hold the fourteen GB Electricity Distribution licences³:

Electricity North West Limited

Northern Powergrid

Scottish and Southern Electricity Networks

SP Energy Networks

UK Power Networks and

Western Power Distribution

³ In addition to the GB DNOs, Northern Ireland Electricity Networks have also contributed to the creation of v2.0

2 Background

2.1 Chapter Summary

This chapter provides an overview of the further development of the Common Network Asset Indices Methodology, the proposed changes and our proposed next steps.

2.2 Requirement for a Common Network Asset Indices Methodology

The requirement for a CNAIM grew out of the development of Health Indices in the previous electricity distribution price control (DPCR5), and the use of Criticality (i.e. the relative consequences of an asset's failure) as an input to the calculation of asset risk for the RIIO-ED1 price control submissions.

The requirement to develop a common approach to the measurement of condition-related risk was set out in Standard Licence Condition 51 of the RIIO-ED1 licence;

<https://epr.ofgem.gov.uk/Content/Documents/Electricity%20Distribution%20Consolidated%20Standard%20Licence%20Conditions%20-%20Current%20Version.pdf>

The CNAIM is required to be suitable to achieve the specified Network Asset Indices Methodology Objectives set out in Part D of the condition;

The Network Asset Indices Methodology Objectives are that compliance with the Common Network Asset Indices Methodology enables:

(a) the comparative analysis of network asset performance between Distribution Services Providers over time;

(b) the assessment of the licensee's performance against the Network Asset Secondary Deliverables; and

(c) the communication of information affecting the Network Asset Secondary Deliverables between the licensee, the Authority and, as appropriate, other interested parties in a transparent manner.

These requirements, although not currently specified in any licence requirements for the RIIO-ED2 period, will need to be maintained and enhanced to meet the requirements Ofgem have identified to establish the NARMs incentive methodology for the RIIO-ED2 period (1 April 2023 – 31 March 2028). Specifically, the minimum requirements Ofgem required are to:

1. Express risk in terms of a monetised value representing the future long term risk associated with asset condition
2. Review the methodology to facilitate the retention of the principles already established in the existing regulatory reporting requirements. This includes the use of Risk Matrices and revision of how they are populated
3. Greater commonality in the reporting on all NARMs assets categories across the GB DNOs

The proposed modifications within CNAIM v2.0 includes changes to meet the above requirements.

The DNOs, through operation of v1.1, have also identified several improvements to the methodology which will better reflect the risk an asset poses to the network. Specific improvements have been proposed in the following areas:

1. Revision of link box safety factor assessment
2. Revisions to the way LV Wall mounted boards are assessed
3. Revision to the values of risk associated with SF₆ gas as used in Switchgear

4. Inclusion of a new asset sub-category for water soluble copper salt treated pole life expectancy
5. Revision to the methodology associated with the painting of towers
6. Addition of revised pressurised cable input factors and the treatment of the interventions in Regulatory reporting requirements
7. Standardisation of the treatment of cable boxes on switchgear and transformer plant.
8. Revisions to the calibrations of the EHV and 132kV transformer oil test modifiers
9. Expansion of the HV transformer methodology to include new modifiers for oil test, DGA and FFA
10. An update to the guidance around Observed Condition Modifiers to improve the consistency of application across DNOs

The details of these changes, both regulatory and DNO driven are detailed in the accompanying document:

Proposed CNAIM v2.0 Methodology Changes Explained.

Redrafting of the document CNAIM v2.0 has also permitted a general revision of the layout, labelling of tables, figures and equation etc.

2.3 Approach to methodology development

2.3.1 Working Group

The DNOs originally created a Working Group comprising members from each of the six DNO Groups, and with the participation of NIE Networks. This working Group was initially supplemented by specialists from EA Technology. Post the implementation of CNAIM v1.1 this Working Group (less EA Technology) continued to meet periodically to oversee the requirement to seek commonality and review the methodology. When the need to review the methodology for RIIO-ED2 arose, this Working Group undertook the development. Ofgem representatives had a standing invite to the Group and attended appropriate sessions. In addition, bilateral and multilateral presentations were made to Ofgem staff during v2.0 methodology development.

The Group has now created a revised version of CNAIM v2.0 and are consulting on its content before submitting to Ofgem for direction.

It must be noted that there is no process for the creation or direction of the v2.0 for use in RIIO-ED2. It is agreed that v2.0 is intended for use in the preparation of the RIIO-ED2 submission, establishment of the NARMS targets and monitoring against NARMS targets in the RIIO-ED2 period. V1.1 will continue to be used for RIIO-ED1 including the RIIO-ED1 closeout.

2.3.2 Structure of this document

Chapter 3 sets out the detailed changes that have been made from the version of the document directed by Ofgem in May 2017.

It should be read alongside the updated version of the Common Network Asset Indices Methodology v2.0 and *Proposed CNAIM v2.0 Methodology Changes Explained* published in conjunction with this consultation.

3 Questions

3.1 Chapter Summary

This chapter lists the changes made from the directed methodologies and identifies those considered as modifications to the Methodology.

3.2 Consultation Questions

In responding to the questions, please provide an explanation or reasoned argument for your response, together with any additional supporting evidence you have in support of your opinion.

There are several changes proposed in the RIIO-ED2 CNAIM v2.0. These changes are summarised in Table 1 below which details the changes to the methodology with references to both the proposed CNAIM v2.0 section and the accompanying explanation document. Associated within each section of the explanation document there is a further table which includes:

- The reasons for the changes
- References standards and papers supporting the proposals, where appropriate
- Revised tables which have been incorporated to the methodology
- The Asset Categories impacted
- The tables impacted within the methodology⁴
- Equations added or revised
- The impact assessment of the proposed changes.

All changes are designed to either align the methodology with the Ofgem requirements for NARMs in RIIO-ED2, which is a cross sector initiative, or better quantify the level of risk because of an asset failure and hence the relative asset failure risk exposure of a Company when compared to other asset classes within the methodology.

Question 1: Do you agree that the overall changes now proposed constitute an appropriate modification to the CNAIM v1.1 Methodology for the RIIO-ED2 period?

Question 2: Is the approach to the creation of Long Term Risk values logical and understandable, and do you agree with the proposal ?

Question 3: Do the changes to the methodology made to support the Ofgem requirements and detailed in sections 5 to 11 of the Explanatory document (including the proposed consequential changes) provide better clarity to our stakeholders?

Question 4: Do you agree that the changes proposed by the DNOs improve the ability to accurately present the Long Term Risk to Stakeholders?

Question 5: With the exception of calibration values to permit the financial values to be updated, do you agree that the additions and revisions to the manner in which the Methodology derives values of Probability of Failure, Consequence of Failure and therefore risk are appropriate? e.g. the adoption of more collars as proposed in Appendix B.5 Observed Condition Factors and B.6 Measured Condition Factors

⁴ CNAIM v2.0 has been extensively revised and all table, figure and equation reference numbers have been revised.

Table 1: Revisions to v1.1 proposed in v2.0

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Not Applicable	4	Regulatory	Alignment of reporting	Ofgem require that for the RIIO-ED2 period that all DNOs report against the full 61 Asset Register Categories in the Methodology	No Impact
Section 5 Risk Reporting	5	Regulatory	Incorporate Long Term Risk to Risk Index	Assign new weightings to each Health Index Band, when deriving the monetised risk (or Risk Index) from the Risk Matrices, so that the value of monetised risk produced represents a longer-term view of the asset risk ("Long Term Risk"). The new weightings produce a value of risk that represents cumulative risk in the current year and all future years, in present value terms.	Medium
Section 5.3 Representation of Assets Within Risk Matrices	6	Regulatory (Consequential)	HI Banding Criteria Revision (Consequential change)	Revise the upper limit of the banding criteria for the HI1 Health Index Band	Medium

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Section 5.4 Risk Reporting	7	Regulatory (Consequential)	Revision of typical Health Score bandings to assign assets to HI bandings	Update the Health Score Used to Derive Average PoF	Medium
Section 5.3 Representation of Assets Within Risk Matrices	8	Regulatory (Consequential)	Changes to the Criticality Banding Criteria	Revise the method of allocating assets to Criticality Index Bands, such that banding is performed based upon a reference value that is common to each DNO.	Medium
Section D4 of Appendix D	9	Regulatory (Consequential)	Revision of Customer Numbers and Maximum Demands used in the Network Performance Cost of Failure	Revision to the typical Customer Numbers/ Maximum Demand used in the derivation of Network Performance Cost of Failure	Medium
Various sections throughout the methodology	10	Regulatory (Consequential)	Update all variable cost to the RIIO-ED2 price base	Current price base is 2012/13, revise to 2018/19	No Impact
Appendix C	11	Regulatory (Consequential)	Reclassification of Refurbishment Activities	Reclassification of some refurbishment activities between Refurbishment (SDI) and Refurbishment (No SDI) categorisations	Medium

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Appendix D.2 Calibration – Consequences of Failure (Safety)	12	DNO	Safety Risk Reduction Factor	Introduction of new safety risk reduction factor	Medium
Chapter 6 (6.9.2 and 6.10.2) and Appendix B (B.5.4, B.5.5 and B.6.4)	13	DNO	LV WMB and Pillar, revision to factor modifiers	Various updates to Condition Modifiers for LV Wall Mounted Boards (WMB) & LV Pillars	Low
Section 7.2, Appendix D.3	14	DNO	Changes to the weightings associated with SF ₆ gas	The values of gas lost for incipient, degraded and catastrophic failure from SF ₆ switchgear have been updated to align with the latest industry understanding of failure types, gas lost and nominal gas volumes	Low

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Appendix B.7 'Oil Test Modifier', Appendix B.8 'DGA Test Modifier', Appendix B.9 'FFA Test Modifier', Section 6.8 'Health Score Modifier for HV, EHV and 132kV Transformers'	15	DNO	Align oil testing to the EHV model	To expand the HV Transformers methodology to include modifiers equivalent to those used for EHV & 132kV transformers, specifically for oil test, DGA and FFA.	Medium
Appendix B.7 Oil Test Modifier	16	DNO	Align EHV and 132kV Transformer oil testing values to the IEC Specification	Disaggregation of Oil Test Modifier by voltage and recalibration	Low
Chapter 2 (Acronyms), Appendix B.1 Normal Expected Life and Table 20	17	DNO	Copper Salt Treated Poles	New Normal Expected Life sub category for copper salt treated poles of 25 years	Low

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Appendix B 'Calibration – Probability of Failure'	18	DNO	Tower Painting Banding Revisions	Application of new caps and collars for various Tower Condition Modifiers	Medium
Section 6.9.2 'Observed Condition Factor', Appendix B 'Calibration – Probability of Failure'	19	DNO	Revised condition inputs for Pressure Cables	Introduce a new observed condition input to capture issues with crystalline lead cable sheaths	Medium
Section 6.9 'Observed Condition Modifier', Appendix B 'Calibration – Probability of Failure', Appendix C 'Interventions'	20	DNO	Alignment of Cable Box condition assessments	Introduce an Observed Condition Input for cable boxes for all ground mounted switchgear and transformer assets.	Medium

CNAIM v2.0 Document Section	Explanation Document Section	Regulatory Requirement or DNO Proposal	Proposal	Description of Change	Impact Assessment for CNAIM v2.0
Appendix B.5 Observed Condition Factors and Appendix B.6 Measured Condition Factors	21	DNO	Condition Collar application review	Introduce a collar of 3 or 4 to the condition level below the worst condition score of an asset with an existing collar of 8.	Medium
Appendix B.5 Observed Condition Factors and B.6 Measured Condition Factors	22	DNO	Condition Modifier descriptor revision	A review of the descriptors used and v1.1 to remove ambiguity.	Low
Not Applicable	A1	DNO	Revised BPDT for ED2	Provided for information only	No Impact
Not Applicable	A2	DNO	RIG Annex A proposed changes	Provided for information only	No Impact

4 Responses

You are invited to respond to our consultation. We have provided a pro-former in Appendix 1 to guide responders through the process. The form is split into three sections, please complete those which you feel are appropriate. Alternatively, please provide responses in a format that is appropriate such as a letter.

Responses should be submitted by e mail to the ENA secretariat by 1 October 2020 no later than 17.00hrs to regulation@energynetworks.org. Alternatively, responses by post can be sent to

Electricity Northwest Ltd
Hartington Road
Preston
Lancashire
PR1 8AF

All postal correspondence must be marked for the attention of R A Wells Regulation and Communications Directorate, Asset Management ED2 Engineering Support Manager.

And must also be received by 1 October 2020 no later than 17.00hrs.

This proposal is tabled on behalf of the licensees listed on page 4 but is hosted on Trade Association's website.

Unless clearly marked **confidential**, all responses to the consultation (regardless of original media) will be published on the Electricity Networks Association website until 1 December 2020. After that date, copies of the consultation responses as presented to Ofgem can be obtain by writing to:

Electricity Northwest Ltd
Hartington Road
Preston
Lancashire
PR1 8AF

All postal correspondence must be marked for the attention of R A Wells Regulation and Communications Directorate, Asset Management ED2 Engineering Support Manager

and providing either a return postal or e mail address.

Note

All responses will be shared amongst all the DNOs in the Working group and NIE Networks.

5 Next Steps

5.1 Chapter Summary

This chapter sets out the next steps in the process for enacting the proposed changes to the Common Network Asset Indices Methodology.

After the closing date has passed, the six GB DNOs (see page 4) who are mandated to conduct this consultation will consider the responses received, together with NIE Networks. A report summarising the responses, together with copies of all received documents will be sent to Ofgem who may either direct the revised Common Network Asset Indices Methodology be adopted or direct that the existing Methodology continue to be implemented. Our proposed timetable for the entire consultation is shown below:

	Date
Consultation published on Electricity Networks Association (ENA) website	1 September 2020
Consultation closes	1 October 2020
DNOs present report to Ofgem on proposals and responses to the consultation	No later than 1 November 2020

Appendix

Optional Pro-forma for responding to this consultation on the Distribution Network Operators Changes proposed changes for CNAIM v2.0	
Responding Organisation:	
Contact Details: (To be used should clarification be required)	Name: Business Address: Business or Mobile Contact Number: e-mail:
<p>Publication of Response, unless otherwise indicated the content of this response will be made available to Ofgem. Please indicate if you DO NOT wish this to happen.</p> <ol style="list-style-type: none"> 1. I / We give consent for the contents of our response to be made available to Ofgem. 2. I / We DO NOT give consent for the contents of our response to be made available to Ofgem. <p>Delete as appropriate, it is assumed that permission is given if no positive response is provided.</p>	
<p>Please provide your organisation's opinion as to the overall and specific proposed changes to this consultation. These will be summarised and submitted to Ofgem at the end of the consultation period. The Overall Comments is provided so that a respondent can provide an overall comment on all matters relating to CNAIM. Please note that there are some changes to the way NARMs will operate in RIIO-ED2, if these do not impact on the Methodology, we are not seeking opinions as it is possible to submit these via Ofgem's SSMC.</p> <p>Please use additional sheets / pages if and where appropriate.</p>	

Part 1 - Overall Comments

Overall Comments

Part 2 – Specific Proposals

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Section 5 Risk Reporting	5	Incorporate Long Term Risk to Risk Index					
Comments							
Section 5.3 Representation of Assets Within Risk Matrices	6	HI Banding Criteria Revision (Consequential change)					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Section 5.4 Risk Reporting	7	Revision of typical Health Score bandings to assign assets to HI bandings					
Comments							
Section 5.3 Representation of Assets Within Risk Matrices	8	Changes to the Criticality Banding Criteria					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Section D4 of Appendix D	9	Revision of Customer Numbers and Maximum Demands used in the Network Performance Cost of Failure					
Comments							
Various sections throughout the methodology	10	Update all variable cost to the RIIO-ED2 price base					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix C	11	Reclassification of Refurbishment Activities.					
Comments							
Appendix D.2 Calibration – Consequences of Failure (Safety)	12	Safety Risk Reduction Factor					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Chapter 6 (6.9.2 and-6.10.2) and Appendix B (B.5.4, B.5.5 and B.6.4)	13	LV Wall Mounted Boards and Pillar, revision to factor modifiers					
Comments							
Section 7.2 and Appendix D.3	14	Changes to the weightings associated with SF ₆ gas					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix B.7 ‘Oil Test Modifier’, Appendix B.8 ‘DGA Test Modifier’, Appendix B.9 ‘FFA Test Modifier’, Section 6.8 ‘Health Score Modifier for HV, EHV and 132kV Transformers’	15	Align oil testing to the EHV model					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix B.7 Oil Test Modifier	16	Align EHV and 132kV Transformer oil testing values to the IEC Specification					
Comments							
Chapter 2 (Acronyms), Appendix B.1 Normal Expected Life and Table 20	17	Copper Salt Treated Poles					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix B ‘Calibration – Probability of Failure’	18	Tower Painting Banding Revisions					
Comments							
Section 6.9.2 ‘Observed Condition Factor’, Appendix B ‘Calibration – Probability of Failure’	19	Revised condition inputs for pressurised Cables					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Section 6.9 ‘Observed Condition Modifier’, Appendix B ‘Calibration – Probability of Failure’, Appendix C ‘Interventions’	20	Alignment of Cable Box condition assessments					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix B.5 Observed Condition Factors and Appendix B.6 Measured Condition Factors	21	Condition Collar application review					
Comments							

CNAIM v2.0 Document Section	Explanation Document Section	Proposal – Please indicate your opinion in the box to the right using a “*”. Please add a comment to support your position, especially if you do not agree with our proposal.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Appendix B.5 Observed Condition Factors and Appendix B.6 Measured Condition Factors	22	Observed Condition Modifier descriptor revision					
Comments							

Part 3 – Response to Consultation Questions

Question 1: Do you agree that the overall-changes now proposed constitute an appropriate modification to the CNAIM v1.1 Methodology for the RIIO-ED2 period?

Question 1 Response

Question 2: Is the approach to the creation of Long Term Risk values logical and understandable, and do you agree with the proposal?

Question 2 Response

Question 3: Do the changes to the methodology made to support the Ofgem requirements and detailed in sections 5 to 11 of the Explanatory document (including the proposed consequential changes) provide better clarity to our stakeholders?

Question 3 Response

Question 4: Do you agree that the changes proposed by the DNOs improve the ability to accurately present the Long Term Risk to Stakeholders?

Question 4 Response

Question 5: With the exception of calibration values to permit the financial values to be updated, do you agree that the additions and revisions to the manner in which the Methodology derives values of Probability of Failure, Consequence of Failure and therefore risk are appropriate? e.g. the adoption of more collars as proposed in Appendix B.5 Observed Condition Factors and B.6 Measured Condition Factors

Question 5 Response