

To: Electricity Distribution  
Network Operators; interested  
stakeholders

Date: 24 October 2017

To whom it may concern,

**Consultation on our minded-to position to revise allowed expenditure for Link Box Costs under special licence condition CRC 3F**

Ofgem introduced a number of uncertainty mechanisms for costs that were uncertain at the time of establishing the first RIIO electricity distribution price control (RIIO-ED1), which runs from 1 April 2015 to 31 March 2023. This includes re-opener mechanisms, which enable adjustments (up or down) to Electricity Distribution Network Operator (DNO) allowances to accommodate costs associated with specific uncertain cost categories. These mechanisms are set out in Special Condition CRC 3F<sup>1</sup> of the Electricity Distribution Licence.

Link Box Costs was one such uncertain cost category, specifically the costs incurred or expected to be incurred by the licensee in efficiently managing the asset risk associated with Link Boxes.

One of the fourteen DNOs, SP Manweb (SPMW), which is part of Scottish Power Energy Networks (SPEN), gave notice to Ofgem of a proposed relevant adjustment of £28.2m (in 12/13 prices) for the period 2017/18 to 2022/23. The level of additional funding requested exceeds the required materiality threshold in order to trigger an adjustment for Link Box Costs (£5.82m).<sup>2</sup>

Additionally, Ofgem gave notice to South Eastern Power Networks Plc (SPN), which is part of UK Power Networks (UKPN), of a proposed a downward adjustment of £7.74m (12/13 prices), equivalent to the total underspend in the first two years of RIIO-ED1. We proposed an adjustment of £6.42m and £1.32m for Regulatory Years 2015/16 and 2016/17, respectively. The total underspend is greater than the material amount of £6.52m<sup>3</sup> and less than the maximum possible negative adjustment of £10.68m<sup>4</sup>.

Based on our analysis of SPMW's application, and subject to further consideration of consultation responses, we propose to adjust SPMW's allowances by £23.4m - £4.8m (17%) lower than its submitted costs. We consider that the submitted volumes of Link Boxes to be replaced is acceptable and in consumers' interests. However, we believe the unit costs presented by SPMW could be more efficient. Furthermore, we are not minded to

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<sup>1</sup> Charge Restriction Condition 3F: Arrangements for the recovery of uncertain costs.

<sup>2</sup> As specified in Appendix 5 to CRC 3F of the special licence conditions.

<sup>3</sup> As specified in Table 1, Appendix 5 in CRC3F of the special licence conditions.

<sup>4</sup> As specified in Table 2, Appendix 5 in CRC3F of the special licence conditions.

accept any indirect costs associated with managing the Link Box programme. Detail is set out in Appendix 1.

For SPN, we are minded not to adjust its allowances. We gave SPN an additional allowance to manage Link Box risks in the first two years of RIIO-ED1. The work has not been fully completed to date. However, following detailed discussions with SPN and a review of its submitted evidence, we are satisfied that the volumes will be delivered in full over the RIIO-ED1 period. Given that the work is being re-profiled, we do not consider it in consumers' interests to adjust the allowance downwards and risk further disruptive Link Box failures. Furthermore, SPN is also proposing to deliver higher volumes over the RIIO-ED1 period that it was given allowances for. Detail is set out in Appendix 2.

We propose to report on progress on the delivery of the Link Box programme for both SPMW and all three UKPN licensees including SPN in our RIIO-ED1 annual reports.

We are seeking the views of interested parties in relation to our minded-to position for adjusting the allowances associated with Link Box Costs set out in this open letter. We would especially welcome responses to the following specific questions:

- 1. Do you agree with Ofgem's assessment and the proposed adjustment to SPMW's opening level of allowed expenditure for Link Box Costs?**
- 2. Do you agree with Ofgem's assessment and the proposal not to make an adjustment to SPN's opening level of allowed expenditure for Link Box Costs?**

Responses should be received by 21 November 2017 and sent to:

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Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website [www.ofgem.gov.uk](http://www.ofgem.gov.uk). Respondents may request that their response, or part of their response, is kept confidential. We shall respect this request, subject to any obligation to disclose information, for example, under the Freedom of Information Act 2000. Respondents who wish to have their responses remain confidential should clearly mark documents to that effect and include the reasons for confidentiality.

Yours faithfully,

SIGNED on 24 October 2017

**Steven McMahon**  
**Associate Partner, RIIO Networks, Electricity**

## **Appendix 1: Detailed analysis of SPMW's proposed adjustments**

Set out in this appendix are our current views, which are subject to consideration of consultation responses.

### **Step 1: Compliance with CRC 3F**

We consider that in its application, SPMW has demonstrated that it complies with all the requirements under CRC 3F and we are satisfied that:

- the costs submitted are based on auditable evidence and justification, and were not included in SPMW's Opening Base Revenue Allowances;
- there were no previous adjustments under this condition that should be taken into account;
- the costs submitted constitute a material amount<sup>5</sup>;
- the costs submitted were incurred or are expected to be incurred after 1 April 2015;
- the costs submitted constitute an adjustment to allowed expenditure that cannot be made under the provisions of any other condition in the SPMW licence; and
- the application includes statements setting out:
  - the uncertain cost activities to which the proposal relates;
  - the changes to the SPMW's allowed level of expenditure that are proposed and the Regulatory Years to which those changes relate; and
  - the basis of calculation for the changes to SPMW's allowed level of expenditure.

SPMW gave Notice of a proposed relevant adjustment during the Link Box Costs application window from 1 July 2017 to 31 July 2017.

### **Step 2: Cost efficiency assessment – this sets out our minded to position on volumes, unit costs and indirect costs.**

#### *Volumes*

We propose to accept the volumes that SPMW has submitted. This follows a detailed review of its method to determine its volumes, and a comparative review of the method adopted by all other DNOs. The volumes are set out in Table A1.1.

SPMW developed a strategy to identify those Link Boxes that were reaching the end of their operational life and had a high probability of failure. It identified an additional 6,073 Link Boxes<sup>6</sup> as reaching the end of their life. SPMW proposed to replace 4,137 in RIIO-ED1 and 1,936 in RIIO-ED2, prioritising those in higher risk location in RIIO-ED1.

These additional 6,073 Link Boxes to those set out in its RIIO-ED1 business plan were identified following a more rigorous inspection regime. Prior to RIIO-ED1, Link Boxes were subject to non-intrusive routine inspections. Following the increasing trend in disruptive failures, inspectors now gather a broad range of condition information. The additional information acquired at inspections allowed the assets to be categorised according to their health and probability of failure. The Health Index ranges from HI1 to HI5, where HI1 is equivalent to a new asset and HI5 is equivalent to an asset at the end of its life. All of the 4,137 Link Boxes proposed to be replaced in RIIO-ED1 are categorised as HI5. We are satisfied with SPMW's HI assessment of its Link Boxes and therefore propose to accept the volumes.

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<sup>5</sup> As specified in Appendix 5 to CRC 3F of the special licence conditions.

<sup>6</sup> SPMW was already given a baseline allowance to replace 1,935 end of life Link Boxes in RIIO-ED1.

**Table A1.1: SPMWs Link Box Replacement Volumes**

| 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | RIIO-ED1 total |
|---------|---------|---------|---------|---------|---------|---------|---------|----------------|
| -       | -       | 207     | 570     | 729     | 832     | 832     | 967     | 4,137          |

### Unit Costs

In determining the unit costs, we have taken into consideration:

- whether it's a 2-connection or 4-connection Link Box<sup>7</sup>; and
- the new higher specification Link Boxes that are now being manufactured following an industry review.

We considered two options for selecting an appropriate unit cost for both 2-connection and 4-connection Link Boxes:

- Option 1: unit cost to date incurred by SPMW (first two years of RIIO-ED1);
- Option 2: industry upper quartile unit cost; and
- Option 3: industry median unit cost.

We agree with the volumes which SPMW has proposed, however, we would expect SPMW to deliver these volumes at a more efficient unit cost than set out in its application. To date SPMW's unit costs have been higher for both 2-connection and 4-connection Link Boxes. We propose to use the industry upper quartile unit cost (option 2). It is our understanding that SPMW will use contractors to deliver the new Link Box programme. This competitive process is likely to drive down unit costs and provides further justification for us selecting the industry upper-quartile rather than industry median unit costs.

In its application, SPMW identified the number of 2-connection and 4-connection Link Boxes for replacement, as set out in Table A1.2.

**Table A1.2: SPMW unit costs 2way/4way connection (12/13 prices)**

|              | Proposed Link Box replacements | Average unit cost (£) |
|--------------|--------------------------------|-----------------------|
| 2-connection | 465                            | 4,683                 |
| 4-connection | 3,672                          | 5,881                 |

SPMW noted that the unit costs set out in Table A1.2 are more expensive to those incurred to date due to introduction of a new industry specification for Link Boxes. It noted the increase in cost for a 2-connection will be £83 and for a 4-connection will be £335. We considered this when calculating the industry upper quartile.

Table A1.3 sets our minded to position on unit costs (industry upper quartile unit costs) and the difference between SPMW's unit costs.

**Table A1.3: Proposed unit cost adjustment (12/13 prices)**

|              | SPMW submission (£) | Ofgem view (£) | Difference (£) |
|--------------|---------------------|----------------|----------------|
| 2-connection | 4,683               | 3,483          | -1,200         |
| 4-connection | 5,881               | 5,757          | -124           |

<sup>7</sup> Link Boxes can have either two or three/four connections, each connection creating an additional fault level infeed into the Link Box.

Our minded to position gives a lower allowance than that submitted by SPMW for replacing both types of Link Box. We propose an adjustment of £22.8m to RIIO-ED1 allowances. This is £0.8m lower than the £23.6m proposed by SPMW.

**Table A1.4: Proposed adjustments to cost allowance for replacing Link Boxes (12/13 prices)**

| SPMW submission (£m) | Ofgem view (£m) | Difference (£m) |
|----------------------|-----------------|-----------------|
| 23.6*                | 22.8            | -0.8            |

\* This is slightly less than the £23.8m that would result from calculating volumes x unit costs from Table A1.2 due to rounding of the 2-connection and 4-connection unit costs and volumes.

### Indirect Costs

SPMW has requested £4.6m for a design and delivery support team of 14.5 FTEs to support its Link Box replacement programme. We propose to disallow the majority of these costs, as they are largely indirect costs (ie costs that support direct delivery of work on the network). Indirect costs are not part of the Link Box Costs definition in the Regulatory Instruction and Guidance (RIGs), as referred to in CRC3F of the licence.

As part of its response to supplementary questions, SPMW provided further detail of the roles within the proposed design and delivery support team. Following this, we are minded to accept the costs of two technical craft persons as we consider these direct rather than indirect costs.

Table A1.5 sets out our minded to position on the adjustment for delivery and design support.

**Table A1.5: Minded to costs for delivery and design costs (12/13 prices)**

| SPMW submission (£m) | Ofgem view (£m) | Difference (£m) |
|----------------------|-----------------|-----------------|
| 4.6                  | 0.7             | -3.9            |

### Adjustment

Following our analysis of the volumes, unit costs and indirect costs, we therefore propose a total adjustment of £23.4m as opposed to £28.2m requested by SPMW (£4.8m/17% less than requested), for the period of 2017/18 to 2022/23. This is detailed in Table A1.6.

**Table A1.6: Proposed adjustment to total allowance (12/13 prices)**

|              | SPMW submission (£m) | Ofgem view (£m) | Difference (£m) |
|--------------|----------------------|-----------------|-----------------|
| 2-connection | 23.6                 | 22.8            | -0.8            |
| 4-connection | 4.6                  | 0.7             | -3.9            |
| <b>Total</b> | <b>28.2</b>          | <b>23.4</b>     | <b>-4.8</b>     |

The adjustments to baseline allowances are profiled based on the profile of volumes of Link Box replacement.

**Table A1.7: Proposed adjustment profiled over RIIO-ED1 (12/13 prices) (£m)**

| 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | RIIO-ED1 total |
|---------|---------|---------|---------|---------|---------|----------------|
| 1.17    | 3.22    | 4.12    | 4.71    | 4.71    | 5.47    | 23.4           |

## Appendix 2: Detailed analysis of SPN’s proposed adjustments

Set out in this appendix are our current views, which remain subject to consideration of consultation responses.

### Step 1: Compliance with CRC 3F

We gave notice to SPN for a proposed downward adjustment to its allowance on Link Boxes. We have considered the requirements under CRC 3F and we are satisfied that:

- the costs submitted are based on auditable evidence and justification, and were not included in SPN’s Opening Base Revenue Allowances;
- there were no previous adjustments under this condition that should be taken into account;
- the costs submitted constitute a material amount<sup>8</sup>;
- the costs submitted were incurred or are expected to be incurred after 1 April 2015;
- the costs submitted constitute an adjustment to allowed expenditure that cannot be made under the provisions of any other condition in the SPN licence; and
- the application includes statements setting out:
  - the uncertain cost activities to which the proposal relates;
  - the changes to the SPN’s allowed level of expenditure that are proposed and the Regulatory Years to which those changes relate; and
  - the basis of calculation for the changes to SPN’s allowed level of expenditure.

### Step 2: Cost efficiency assessment – this sets out our minded to position on volumes.

Following the increase in disruptive failures within UKPN’s area prior to RIIO-ED1, Ofgem allowed additional volumes and the associated costs for the first two years of RIIO-ED1 for all three UKPN licensees, including SPN.

We provide SPN’s allowed volumes of Link Box replacements set at the start of the RIIO-ED1 price control in table A2.1.

**Table A2.1. Allowances for RIIO-ED1 Link Box replacement – volumes**

| 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | ED1          |
|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
| 1,718   | 1,718   | 235     | 235     | 235     | 235     | 235     | 235     | <b>4,844</b> |

In the first two years of RIIO-ED1, SPN did not deliver the volumes as expected. For 2015/16 to 2016/17, the total volume for replacement of Link Boxes was 1,493, against a target of 3,436. In light of additional information, SPN revised its strategy on the replacement of Link Boxes. It will deliver the volumes over the rest of RIIO-ED1. SPN has also identified an additional 399 Link Boxes that will be replaced over RIIO-ED1. Table A2.2 details the revised profile.

**Table A2.2. Revised strategy Link Box replacement – volumes**

| 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | ED1          |
|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
| 307     | 1,186   | 625     | 625     | 625     | 625     | 625     | 625     | <b>5,243</b> |

Similarly, SPN did not deliver the expected volumes in the first two years of RIIO-ED1 for the installation of Link Box fire blankets. However, SPN has noted that as part of its revised strategy it will accelerate the installation to ensure the risk to public is reduced as quickly as possible in a cost effective way. Over the next two years, SPN will deliver the volumes set out in Table A2.3.

<sup>8</sup> As specified in Appendix 5 to CRC 3F, table 1 of the special licence conditions.

**Table A2.3. Installation of Link Box blankets**

| 2017/18 | 2018/19 |
|---------|---------|
| 11,099  | 16,649  |

We are minded to accept the volumes and revised profile that SPN has provided, for both Link Box replacements and fire blankets. It is in customers' interests that SPN continues to mitigate the risks associated with disruptive failures of Link Boxes and we are satisfied that SPN will deliver these profiles, over the course of RIIO-ED1. We will be reviewing the volumes to ensure they are delivered and report progress in the RIIO-ED1 annual reports.

*Adjustment*

Following our analysis of the volumes, we are minded not to adjust SPN's allowance.