



Document 12
Asset Category – ESQCR
LPN

Asset Stewardship Report
2014

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Document History

Version	Date	Details	Originator	Revision Class	Section Update
1.0	24.02.2014	Original	NA	NA	NA
1.1	24.02.2014	Initial Draft for Resubmission	Manjula Singh	Minor	Removed cable pits from the whole document
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1.4	25.02.2014	Updated as per the Gold checklist	Manjula Singh	Minor	Throughout the document
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1.6	27.02.2014	Additional explanation provided for difference between the July 2013 submission and the 2014 submission	Chino Atako	Minor	Appendix 10
1.7	28.02.2014	Text in the executive summary updated	Chino Atako	Minor	Section 1
2.0	03.03.2014	Approved by Barry Hatton	Manjula Singh		None

Preface

UK Power Networks uses Asset Stewardship Reports ('ASR') to describe the optimum asset management strategy and proposals for different groups of assets. This optimised asset management strategy and plan details the levels of investment required and the targeted interventions and outputs needed. Separate ASRs define the most efficient maintenance and inspection regimes needed and all documents detail the new forms of innovation, which are required to maximise value, service and safety for all customers and staff throughout the ED1 regulatory period. Outline proposals for the ED2 period are also included.

Each DNO has a suite of approximately 20 ASR's. Although asset policy and strategy is similar for the same assets, in each DNO the detailed plans and investment proposals are different for each DNO. There are also local issues, which must be taken into account. Accordingly, each DNO has its own complete set of ASR documents.

A complete list of titles of the ASR's, a summary of CAPEX and OPEX investment is included in '**Document 20: Asset Stewardship Report: CAPEX/OPEX Overview**'. This document also defines how costs and outputs in the various ASR's build up UK Power Networks 'NAMP' (Network Asset Management Plan) and how the NAMP aligns, with Ofgem's ED1 RIGs tables and row numbers.

Where 'HI' or asset 'Health Index' information is included, please note predicted ED1 profiles are before any benefits from 'Load driven investment.'

This ASR has also been updated to reflect the feedback from Ofgem on our July 2013 ED1 business plan submission. Accordingly, to aid the reader three additional appendices have been added. They are;

1. **Appendix 8 - Output NAMP/ED1 RIGS reconciliation:** This section explains the 'line of sight' between the UKPN Network Asset Management Plan (NAMP) replacement volumes contained in the Ofgem RIGS tables. The NAMP is the UKPN ten year rolling asset management investment plan. It is used as the overarching plan to drive both direct and indirect CAPEX and OPEX interventions volumes and costs. The volume and cost data used in this ASR to explain our investment plan is taken from the UK Power Networks NAMP. Appendix 8 explains how the NAMP outputs are translated into the Ofgem RIGS tables. The translation of costs from the NAMP to the ED1 RIGS tables is more complex and it is not possible to explain this in a simple table. This is because the costs of a project in the 'NAMP' are allocated to a wide variety of tables and rows in the RIGS. For example the costs of a typical switchgear replacement project will be allocated to a range of different Ofgem ED1 RIGs tables and rows such as CV3 (Replacement), CV5 (Refurbishment) CV6 (Civil works) and CV105 (Operational IT Technology and Telecoms). However, guidance notes of the destination RIGs tables for NAMP expenditure are included in the table in the Section 1.1 of the Executive Summary of each ASR.
2. **Appendix 9 – Material changes since the June 2013 ED1 submission:** This section shows the differences between the ASR submitted in July 2013 and the ASR

submitted for the re-submission in March 2014. It aims to inform the reader the changes made to volumes and costs as a result of reviewing the plans submitted in July 2013. Generally, the number of changes made is very small, as we believe the original plan submitted in July 2013 meets the requirements of a well-justified plan. However, there are areas where we have identified further efficiencies and improvements or recent events have driven us to amend our plans to protect customer safety and service.

We have sought to avoid duplication in other ED1 documents, such as 'Scheme Justification Papers', by referring the reader to key issues of asset policy and asset engineering which are included in the appropriate ASR documents.

Contents

1.0	Executive Summary - LPN ESQCR Compliance	7
1.2	Investment Strategy	7
1.3	ED1 Proposals	7
1.4	Innovation	8
1.5	Risks and Opportunities	8
2.0	Description of LPN ESQCR Compliance focus areas	8
3.0	Investment Drivers	9
3.1	ESQC Regulations	9
3.2	Identifying Interventions required	9
3.3	Intervention thresholds	10
3.4	Examples of non-compliance	10
3.5	Incidents and events	11
3.6	Signage	11
4.0	Asset Assessment	14
4.1	Asset Health	14
4.2	Asset Criticality	14
4.3	Network Risk	15
4.4	Data Validation	15
4.5	Data Verification	15
4.6	Data Completeness	15
5.0	Intervention policies	16
5.3	Interventions: Description of intervention options evaluated	16
5.4	Policies: selecting preferred interventions	16
6.0	Innovation	16
7.0	ED1 Expenditure requirements for ESQCR Compliance	20
7.1	Method	20
7.2	Additional Considerations	20
7.3	Asset volumes & expenditure	21
7.4	Commentary	22
	Appendices	23
	Appendix 1 – Age Profiles	23
	Appendix 2 – HI Profiles	23
	Appendix 3 – Fault Data	23

All of the cost numbers displayed in this document are before the application of on-going efficiencies and real price effects

Appendix 4 – WLC Case Studies: risk, cost, performance, condition profiles for various options.....	23
Appendix 5 – NLRE Expenditure Plan	25
Appendix 6 – Sensitivity Analysis	26
Appendix 7 – Named Scheme	26
Appendix 8 – Output NAMP / ED1 Business Plan Data Table Reconciliation	27
Appendix 9 – Efficiency benchmarking with other DNO's.....	28
Appendix 10: Material changes since the July 2013 ED1 submission	29

1.0 Executive Summary - LPN ESQCR Compliance

1.2 Investment Strategy

In LPN, any safety or ESQCR compliance issues are identified through a defined periodic inspection of its assets. These compliance issues are prioritised through a risk-based prioritisation model and are resolved appropriately within the agreed timelines based on the severity of these issues.

UK Power Networks' investment strategy for ED1 has been set to comply with ESQCR in order to minimise the risk to members of the public and employees.

1.3 ED1 Proposals

This document summarises the expenditure on ESQCR compliance issues related to signage. The ED1 investment proposal for signage replacements is £0.2m in legal & Safety table. This is a fifty per cent increase on the average annual expenditure in DPCR5. The increased expenditure is to address the increasing cases of substation trespassing and thefts which we have observed in LPN. Table 1 shows a summary of the DPCR5 and ED1 expenditure.

Expenditure Category	ED1 Total expenditure	DPCR5 Total expenditure	ED1 Annual average expenditure	DPCR5 Annual average expenditure
Signs	£215,483	£53,856	£26,935	£10,771
Grand Total	£215,483	£53,856	£26,935	£10,771

Table 1: LPN ESQCR expenditure summary for ED1

(Source: 21st February 2014 Business Plan data table CV8)

1.4 Innovation

UKPN has introduced a risk-based approach to compliance management, which we believe is an industry leading initiative in the way risk is minimised and compliance issues are identified, prioritised and resolved efficiently. The risk-based framework is implemented using a centrally managed, risk-based prioritisation model to identify the priority of an issue on a scale of P1 to P5, with P5 issues being the most urgent. This has been introduced for all asset types and was developed in collaboration with Network Operations and external parties by developing asset management strategies.

1.5 Risks and Opportunities

	Description of similarly likely opportunities or risks arising in ED1 period	Level of (uncertainties)/ cost growth (£m)
Risk/ opportunity	Deviation from average asset life for signs	+/-5%

Table 2: Risks and opportunities

2.0 Description of LPN ESQCR Compliance focus areas

ESQC regulations have implications throughout UKPN operations. The work required for ESQCR compliance is covered in asset specific documents (e.g. substation trespass is covered under the Civil justification document, increased safety patrols on high risk sites are covered under the Inspections and Maintenance document). This section details our proposed asset policy, practice and funding strategy in the ED1 period on ensuring ESQCR compliance on signage.

LPN has a network of 17,563 substations, monitored as part of ESQCR compliance. See Table 3.

Asset Class	Asset Category	Total
Site	Grid Substation Site	60
	Primary Substation Site	147
	Secondary Substation Site	17,356
Grand Total		17,563

Table 3 – Substations and overhead line assets

(Source: UKPN 2012/2013 RIGS V1 table)

3.0 Investment Drivers

3.1 ESQC Regulations

The primary investment driver for compliance management is to minimise risk to the public and staff at the lowest cost to customers. Additionally, there is the obligation to ensure compliance with the safety aspects of the ESQC Regulations 2002.

Incidents of substation trespassing and thefts are increasing, subsequently highlighting the risks of potential injury to members of public in substations. These will have to be mitigated by appropriate signage on all substations to notify the public about the risks of potential electrical contact.

The ESQCR Compliance aspects covered in this document are related to regulatory signage warning the public of the electrical hazards on site (substation signs).

LPN inspectors are trained to identify and record ESQCR non-compliance issues as part of the inspection routine, which will then be recorded into the Asset Register application.

Any non-compliance identified through inspections will require resolution. Please refer to Section 5 for specific details on different interventions carried by out UKPN to ensure ESQCR compliance.

3.2 Identifying Interventions required

ESQCR compliance issues are identified during routine inspection of our assets. Inspection frequencies are outlined in Engineering Maintenance Standard EMS 10-0002.

ESQCR compliance issues identified are recorded as a defect in the asset management register 'Ellipse'. UK Power Networks uses a risk-based model to robustly manage and prioritise the defects. The defect prioritisation model considers the risk to public safety, quality of supply, environmental risk and the ESQCR risk

rating. This prioritisation model and the defect management programme are detailed further in section 6.

Urgent ESQCR compliance issues are also reported to AIRLine. AIRLine is UKPN Accident and Incident Reporting line. Any compliance issues that are considered as an immediate risk to public safety must be reported to AIRLine. Through AIRLine an action is assigned to a member of staff to investigate and risk assess the issue and arrange for resolution within an appropriate risk based time scale.

Signage

The Substation Inspectors' Handbook details the requirements for safety signage ensuring full compliance with ESQCR.

Signage issues are identified, and where possible, rectified as part of the routine inspection of our assets. Signage issues not rectified at the time of inspection are prioritised and managed as part of the defect management programme.

3.3 Intervention thresholds

Signage (Substations)

Signs will require replacement if they are vandalised, or found to be non-compliant with ESQCR and UKPN policy. In addition, depending on the position of the sign, the expected life can be reduced significantly due to ultra violet exposure, where ultimately, the signage is faded by sunlight and will require replacement. Figure 1 in section 3.4 is a typical example of a yellow danger of death sign, which has faded due to prolonged exposure to direct sunlight.

Where possible, UKPN have reviewed the signage design with the supplier, in particular the ownership sign on substations, to use a black pigment instead of colours as the black pigment has a longer expected life span. Figure 4 shows the previous ownership signage, which has faded.

As mentioned previously, signage issues are rectified where possible at the time of inspection to ensure maximum cost efficiency.

3.4 Examples of non-compliance

Signage Issues

The photos below outline a few examples of signage compliance.



Figure 1 - Faded signage due to UV exposure



Figure 2 - Vandalised Sign with graffiti



Figure 3 - Substation signage missing



Figure 4 - Faded ownership details

3.5 Incidents and events

AIRLine is the UKPN Accident and Incident Reporting line. Compliance issues that are considered as an immediate risk to public safety must be reported to AIRLine. All staff and contractors as well as members of the public can report incidents to AIRLine through the customer call centre.

This section outlines the trends of incidents reported to AIRLine between 2010 and 2012 on signage.

3.6 Signage

Figure 5 shows an increasing trend of signage issues reported to AIRLine. This is predominantly because of increased awareness by all UKPN staff and contractors following an audit on substation signage carried out in SPN in January 2012.

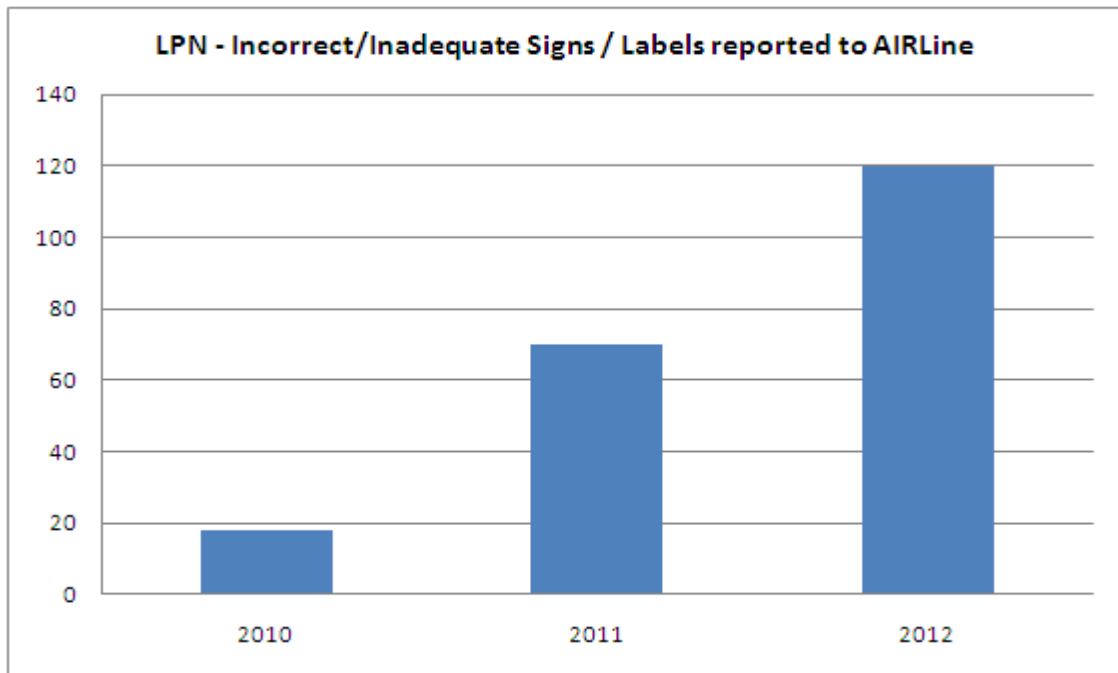


Figure 5 - *Incorrect signage incidents reported to AIRLine*

The audit focussed on the ESQCR requirement to display sufficient safety signs as well as identification of ownership and location details. Compliance issues identified included faded, vandalised and missing signage, as illustrated in Figures 1 - 4 of section 3.4.

Signs have been redesigned to avoid the use of colours, where possible, so as to reduce fading. Internal signage audits continue to be carried out and dedicated briefing sessions have been held with inspectors across all of UKPN. ESQCR signage requirements are also included in team briefing sessions for all staff to ensure a wide audience can identify and report ESQCR signage compliance issues. The simple message conveyed to staff is to ask yourself - if you were the emergency services and arrived on site, could you contact the owner of the site and readily provide location or an identification number for the site. This is critical information required by the emergency services if an incident were to occur on the site. Figure 6 displays the team brief communication.

SUBSTATION SIGNAGE

Compliance

Random inspections by the Health & Safety Executive at 6 Grid and Primary substation sites raised a concern as signs were either missing, inadequate, defaced or faded. This is not compliant with statutory regulations and UKPN EI 09-0019.



Graffiti should be removed.



UKPN ownership label faded.



Danger of Death should be bright yellow.

Look out for incorrect signage and report to AIRline. Ask yourself, if you were the emergency services and arrived on site, could you contact the owner of the site (UKPN) and readily provide the location or an identification number for the site? This is critical information required by the emergency services if an incident were to occur on the site.



Every main gate (the first one that the emergency services arrive at) has this sign fitted.



'Danger of Death' sign should be clean and bright yellow.



Every secondary gate accessible by vehicles has signage in this format fitted.



UKPN ownership & site location labels should be clear & clean.

Figure 6 - Team Brief communication following audit

4.0 Asset Assessment

4.1 Asset Health

UKPN has an established defect rectification programme with the aim of reducing the outstanding defect count to normal operating level by 2015.

4.2 Asset Criticality

UKPN has developed a comprehensive defect prioritisation model to prioritise the defects identified on the network and ensure they are dealt with the appropriate level of urgency.

Each of the defect categories were reviewed and assigned a risk score based on:

- Regulatory Risk
- Safety Risk
- Environmental Risk
- Quality of Supply Risk
- Financial Risk

Regulatory, safety and environmental risk are assigned a higher weighting to ensure that they are resolved as a priority.

The priority on a defect is not decided by the inspector but will be applied centrally through the defect prioritisation model thereby ensuring strict control and governance on the process. The model will rely on additional factors such as location risk, equipment risk of the asset (safety, environmental, QoS and financial risk already assigned on the defect category) to arrive at the overall priority. Once the priority is assigned, it will not be subject to change and will have to be resolved as per the agreed resolution time standard.

Based on risk scores, each defect category is assigned a priority from P5 to P1, which has a designated resolution time schedule as shown in the table 4.

Defect Criticality	Definition	Resolution Time Schedule
P5	Critical	< 3 months
P4	Urgent	3 – 12 months
P3	Required	12 – 24 months
P2	Medium	24 – 48 months
P1	Low	During next maintenance, next visit
P0	-	For information only

Table 4: Defect Criticality Definition and Resolution Time Schedule

4.3 Network Risk

The risk of an asset failing is a combination of the probability of failure (such as age and duty) and the consequence of failure (such as network performance). Asset criticality provides a measure of the consequence of failure and is evaluated in terms of the following four primary criticality categories:

- Network Performance (PD monitoring, function, spares/obsolescence, licence area and customer number)
- Safety (internal arc rated, arc extinction and ESQC risk level)
- Financial; opex (licence area, spares/obsolescence) and capex (voltage and licence area)
- Environmental (site sensitivity, arc extinction, gas capacity and volume of oil)

In order to compare and combine category consequences, each consequence value is equated to a monetary assessment. Once the average consequence of failure for a group has been valued, it is necessary to define the criticality of an individual asset (for each consequence category). The score for each consequence category is then added together and converted to an Ofgem criticality index (C1-4) A detailed methodology for calculating the criticality index can be found in 'Commentary Document 15: Model Overview'.

4.4 Data Validation

Not Relevant: Intentionally Left Blank

4.5 Data Verification

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4.6 Data Completeness

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5.0 Intervention policies

5.3 Interventions: Description of intervention options evaluated

Table 5 outlines the issues and the remediation adopted for resolution of non-compliant signs.

ESQCR compliance issue	Compliance description	Description of intervention options
Signs:	Provision of warning signs for overhead line structures and substations	<ul style="list-style-type: none"> • Replacement of defective and non-compliant signs • Cleaning of signs with graffiti / dirt where possible

Table 5: LPN – Interventions on signage

5.4 Policies: selecting preferred interventions

Each site will be risk assessed and the most cost effective intervention, if required, will be applied. Intervention for specific compliance issues depend on a variety of factors, such as, location and type of asset.

6.0 Innovation

Defect Management Program

UKPN launched the Defect Management Programme in September 2011 to review, prioritise and resolve the defects identified during inspections.

A risk-based defect prioritisation model has been implemented to prioritise and ensure that the most critical issues are addressed as appropriate.

The programme has established defect task forces in each region, led by the Heads of Network Operations, who are supported by Asset management and Health and Safety teams that review the defects and responses identified on a monthly basis. The inclusion of Asset Management teams in the programme also ensures that uniform defect resolution approach is adopted across the regions.

Task force structure

Roles	Participants
Chairman	Head of Operations
Steering Committee	Head of Asset Strategy, Head of Health and Safety, Head of Asset Information
Co-ordination, Data reports	Asset Management Team
Team	Tree Managers Civil Managers I&M Managers Capital Delivery Managers
Meeting Frequency	Monthly meetings

Table 6: Task force structure

Through a focussed approach to network defects, the programme has successfully reduced the outstanding volume of defects by 33% by the end of December 2012. The current defects in the asset register are being regularly analysed to see redundancies and duplicates while also resolving any incorrectly categorised defects that need attention.

UKPN – Outstanding defects

Sep 2011 baseline

Category	P5 - VERY HIGH	P4 - HIGH	P3 - MEDIUM	P2 - LOW	P1 - VERY LOW	Grand Total
OHL	36,688	30,538	240,522	30,315	6,460	344,523
Pole Condition	98	15,621	2,482	0	0	18,201
Towers	21	1,260	15,338	5,574	0	22,193
Trees	8,378	160,475	24,269	0	0	193,122
Civil	1,043	12,850	23,743	15,403	15,647	68,686
Link box	8,718	4,597	1,863	1,422	15,946	32,546
Plant	1,820	80	206	31,759	4,565	38,430
Grand Total	56,766	225,421	308,423	84,473	42,618	717,701

The outstanding defect count has reduced by 239,867 (~33.42%)

Dec 2012 End status update

Category	P5 - VERY HIGH	P4 - HIGH	P3 - MEDIUM	P2 - LOW	P1 - VERY LOW	Grand Total
OHL	25,659	33,070	127,304	25,199	101	211,333
Pole Condition	15	17,841	2,665	0	0	20,521
Towers	28	1,165	12,561	5,404	0	19,158
Trees	1,742	76,598	43,607	302	0	122,249
Civil	731	11,308	18,784	8,408	9,037	48,268
Link box	0	8,747	0	0	4,279	13,026
Plant	1,240	957	409	34,905	5,768	43,279
Grand Total	29,415	149,686	205,330	74,218	19,185	477,834

P5 defects have reduced by 48.18%

Table 7: Defect Management – UKPN Performance Dec 2012

December 2013 End Status

update

Asset Category	P5	P4	P3	P2	Total
Civil	341	8,106	7,058	9,563	25,068
Link box		6,858			6,858
OHL	7,986	27,175	96,027	24,780	155,968
Plant	1,119	320	457	19,655	21,551
Pole Condition	13	15,098	2,364		17,475
Towers	39	1,312	12,181	2,252	15,784
Trees	1,276	45,084	13,322		59,682
Total	10,774	103,953	131,409	56,250	302,386

Table 8 – UK Power Networks defect management update 2013

LPN has contributed significantly to the overall progress. This has resulted in 47% reduction in outstanding defects for LPN.

LPN Performance

Sep 2011 baseline

Category	P5 - VERY HIGH	P4 - HIGH	P3 - MEDIUM	P2 - LOW	P1 - VERY LOW	Grand Total
Towers	0	6	18	28	0	52
Trees	0	3	17	0	0	20
Civil	315	3,972	7,486	8,527	3,883	24,183
Link box	6,518	2,559	1,083	1,058	8,410	19,628
Plant	263	27	35	11,508	589	12,422
Grand Total	7,096	6,567	8,639	21,121	12,882	56,305

The outstanding defect count has reduced by 26,459 (~46.99%)

P5 defects have reduced by 95.07 %

December 2012 End status

Category	P5 - VERY HIGH	P4 - HIGH	P3 - MEDIUM	P2 - LOW	P1 - VERY LOW	Grand Total
Towers	0	7	15	12	0	34
Trees	0	3	16	0	0	19
Civil	234	3,052	3,795	3,984	882	11,947
Link box	0	4,522	0	0	1,837	6,359
Plant	116	41	25	10,620	685	11,487
Grand Total	350	7,625	3,851	14,616	3,404	29,846

Table 9: Defect Management – LPN Performance

December 2013 End

Status

Asset Category	P5	P4	P3	P2	Total
Civil	110	4,790	2,224	1,874	8,998
Link box		3,099			3,099
Plant	104	60	26	3,609	3,799

Towers		7	19	8	34
Trees	0	5			5
Total	214	7,961	2,270	5,491	15,936

Table 10 – LPN Performance t 2013

Table 10 shows the progress made in reducing the number of defects as of December 2013 in LPN. LPN successfully reduced the outstanding defect count by 71% by the end of 2013 from the September 2011 Baseline. The strategy is to address all outstanding issues raised by the end of DPCR5 and Business as usual.

Defect reporting tool

An online defect reporting tool has been developed to improve visibility of the defects and aid planning for resolution of defects. The reporting tool is accessible by both UKPN staff and its contractors. The report enables effective access and viewing of the defects as well as development of progress graphs for efficient monitoring and tracking of key performance indicators.

Defect inspectors handbook

A handbook on defects for inspectors is being developed to improve clarity on what constitutes a defect. This will cover all defect categories, not just the categories detailed throughout this document. The handbook will aid improved reporting and understanding of each defect and is planned for completion by the end of 2013.

It is widely acknowledged that the presence of gas can exacerbate the effects of a disruptive failure. Within the literature it can be observed that the most common strategy of mitigating the effects of these disruptive faults is to form an assumptive stance; whereby a disruptive fault is assumed to be inevitable. Consequently, relatively cheap mitigating safety devices, such as tethered covers etc, can be deployed in order to mediate and mitigate the effects of a fault and not to stop the fault occurring.

7.0 ED1 Expenditure requirements for ESQCR Compliance

7.1 Method

The investment strategy for ED1 has been set to achieve ESQCR compliance and minimise the risk to members of the public and employees. Any defects identified will also be resolved during the ED1 period. The current defect management programme will address the outstanding defects by the end of DPCR5. A targeted approach to resolving ESQCR compliance issues will continue throughout ED1. The investment plan for ESQCR safety compliance addressed in this document is primarily for signage. Other areas of expenditure for ESQCR compliance are covered in asset stewardship reports for other asset groups.

The ESQCR forecasts are based on historical trends and apply data quality correction to ensure forecast volumes that are more realistic.

Wherever there is a skewed annual volume, which may be due to a system upgrade or migration issues, the volumes are discounted in the forecasting, to not skew the volume due to very high or very low volumes in any given year.

As described in earlier sections, the Defect Management programme, currently being executed by UKPN is expected to bring down the volume of outstanding defects to a manageable level by 2015.

Methodology for volume forecasting:

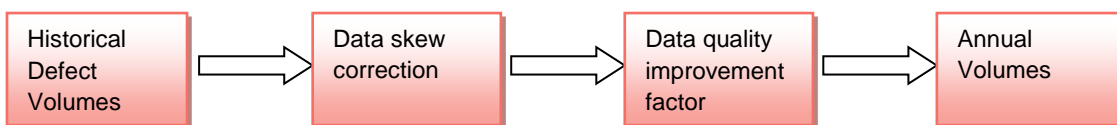


Figure 7 - ED1 forecasting process

7.2 Additional Considerations

None.

7.3 Asset volumes & expenditure

Table 11 summarises the ESQCR Safety related expenditure for the ED1 period.

Assets	NAMP	Description	ED1 Total Expenditure	ED1 Total Volume	ED1 Yearly Expenditure	ED1 Yearly Volume
Signs	1.13.05	ESQC Provision of warning signs	£215,483	19,200	£26,935	2,400
Grand Total			£215,483	19,200	£26,935	2,400

Table 11: LPN ESQCR Expenditure (source: Costs - 19th February 2014 NAMP, Table J Less Indirects, Volumes - 19th February 2014 NAMP, Table O)

Signage

As previously mentioned in section 3.4, warning signs require replacement if they are vandalised, faded, or found non-compliant with ESQCR and UKPN Policy. An average annual volume of 2,400 sign replacements is forecast in ED1. This is out of a total population of 19,200 signs. Since 2010, LPN has procured an average annual volume of 1,382 signs.

NAMP	Description	ED1 Total Expenditure	ED1 Total Volume	ED1 Yearly Expenditure	ED1 Yearly Volume
1.13.05	ESQC Provision of warning signs	£215,483	19,200	£26,935	2,400

Table 12: LPN – ED1 expenditure on signage (source: Costs - 19th February 2014 NAMP, Table J Less Indirects, Volumes - 19th February 2014 NAMP, Table O)



Table 13: LPN expenditure trend on signs

There is a lack of information contained within the asset register for spend on signage in the early years of DPCR5. The volumes of signs are known and the cost of these has been calculated for ED1 forecasting.

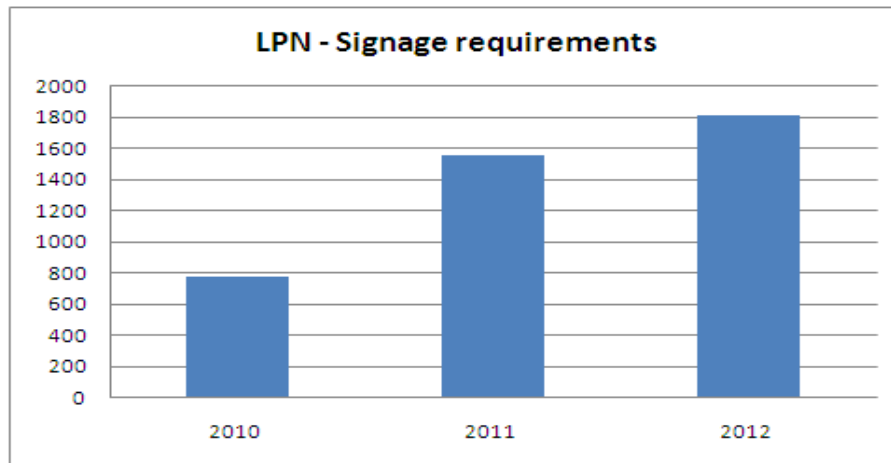


Figure 8 - LPN usage trend on signs

7.4 Commentary

The proposed investment level for signs, in ED1, is **£0.21m**. The proposal has been determined from a review of historical achievements and a risk-based management policy. The proposals will enable compliance with ESQCR and minimise risks to the public, UKPN staff and its contractors.

Appendices

Appendix 1 – Age Profiles

Not Relevant: Intentionally Left Blank

Appendix 2 – HI Profiles

Not Relevant: Intentionally Left Blank

Appendix 3 – Fault Data

Not Relevant: Intentionally Left Blank

Appendix 4 – WLC Case Studies: risk, cost, performance, condition profiles for various options

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Appendix 5 – NLRE Expenditure Plan

Asset Type		RIG Table		Cost in (£m)								
Investment description	NAMP Line	RIG Table	RIG Row	2015/6	2016/7	2017/8	2018/9	2019/20	2020/21	2021/22	2022/23	Total
ESQC Provision for Warning Signs	1.13.05	CV8	14	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.64
Total				0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.64

Table 14 NLRE Expenditure (Source: 19th February 2014 NAMP J Less Indirects)

* The costs in Table CV8 Row 14 include provision for additional warning signs for a separate work programme “Substation Earthing Reinstatement Following Theft”.

Appendix 6 – Sensitivity Analysis

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Appendix 7 – Named Scheme

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Appendix 8 – Output NAMP / ED1 Business Plan Data Table Reconciliation

Asset Types	Asset Stewardship reports										RIG Table										
Investment Description	NAMP Line	2015/6	2016/7	2017/8	2018/9	2019/20	2020/21	2021/22	2022/23	Total	RIG Table	RIG Row	2015/6	2016/7	2017/8	2018/9	2019/20	2020/21	2021/22	2022/23	Total
ESQC Provision for Warning Signs	1.13.05	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	19,200	CV8	14	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	19,200
Total		2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	19,200			2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	19,200

Table 15 - NAMP to ED1 Business Plan Data Table Reconciliation (Source: 19th February 2014 NAMP Table O /21st February ED1 Business Plan Data Tables)

Appendix 9 – Efficiency benchmarking with other DNO's

Not Relevant: Intentionally Left Blank

Appendix 10: Material changes since the July 2013 ED1 submission

DNO	Action	Change type	2013	2014	Difference (Reduction)	Comment
EPN	Replace	Volume	2,400	2,400	0	-
		Investment (£m)	0.64	0.64	0	
		UCI (£k)	0.26	0.26	0	-

Table 16 – Material Changes to July 2013 ED1 Submission for LPN

(Source: Business Plan Data Tables following the OFGEM question and answer processes / 21st February 2014 Business Plan Data Tables)

In the July 2013 submission, ESQCR warning signs are incorrectly labelled as “Tunnel Radio” in the RIGS table CV8 (Row 14). This is corrected in the 2014 resubmission tables. However, there are no material changes since the July 2013 submission.