SP Energy Networks 2015–2023 Business Plan

Updated March 2014

Annex

Regulatory Reporting Pack – Wooden Poles Guidance Document

SP Energy Networks

June 2013

SP ENERGY NETWORKS

Regulatory Reporting Pack – Wooden Poles

Guidance Document

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General Information

Background

Every year Scottish Power submits a Regulatory Reporting Pack to OFGEM, detailing information including volume delivery, expenditure and outputs. After the first 2 years of DPCR5 (April 2010 to March 2012) OFGEM calculated that Scottish Power were well behind on delivering their DPCR5 outputs in both SP Manweb and SP Distribution. This was in contrast to our internal view of outputs, where, although we had calculated we were behind on outputs, we were in a healthier position than OFGEM had concluded. Therefore, Scottish Power started a review of all volume delivery information across SP Manweb and SP Distribution in order to understand the discrepancies between our view and OFGEM's view. This document will look at the wooden poles submissions for SP Manweb and SP Distribution and discuss the discrepancies and possible options for improving the outputs position associated with wooden poles.

Introduction

This document will be split into three sections. This first section will cover general information about our RRP submissions. The second and third will cover SP Distribution and SP Manweb respectively. In these sections, I will explain the current outputs positions and discuss how we can improve this. Furthermore, I will provide the possible implications of the improved positions and how best to detail this information in the 2012/13 Regulatory Reporting Pack.

Reporting Systems

For wooden poles, SP's master system is ESRI. However, this information is mapped to SAP in order to provide maintenance and inspection programmes, as well as recording pole condition information and defects. For the 2010/11 RRP submission, SP used the pole movements from SAP. For the 2011/12 RRP submission and subsequent RRPs, ESRI will be used to provide the pole movements information. Due to discrepancies between ESRI and SAP, it has proven difficult to compare the current ESRI data set to our 2010/11 RRP submission. This will be explained in more detail within each licence section.

Health Index

For each pole addition and disposal, it is assigned a Health Index (HI0-5 with HI1 New and HI5 End of Life). For RRP 2010/11 and 2011/12, this was assigned by using the age of the pole and any existing Rotten Pole anomaly in SAP as shown in the diagram below.

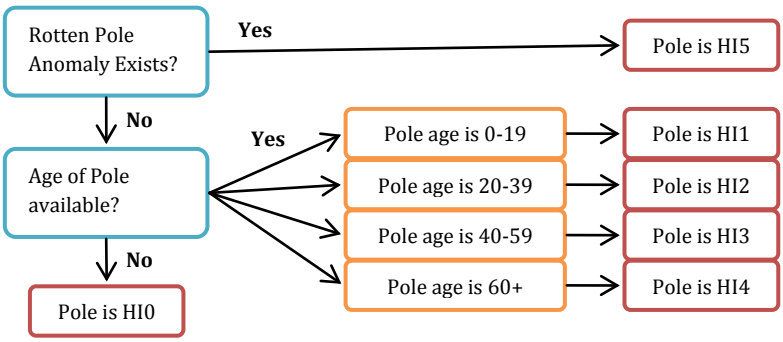


Figure 1 - Health Index Calculation RRP 2010-12

HI0 or HI Unknown for disposals in RRP purposes is divided across HI1-HI4 in the same proportion as the existing profile for each specific Asset Activity and voltage level. For example:

Asset Activity	HI0	HI1	HI2	HI3	HI4	HI5	Total
Existing Profile	750	0	50	200	500	750	2250
New Profile	0	0	100	400	1000	750	2250

Figure 2 – Disposal HI Re-profile RRP 2010-12

HI0 for additions are assumed to be HI1 (New Assets).

For the 2012/13 RRP submission, we have changed our approach to how the HI is calculated for our poles. The new HI methodology of the poles involves assigning a Health Index (HI0-5 with HI1 New and HI5 End of Life) as illustrated in the diagram on the following page. From 2012, poles were assigned a condition based HI1-5 during inspections. However, until we have been round the whole SP network, we will still need to utilise any existing rotten pole anomalies, or the age of the pole to determine the HI. We have also changed the pole age banding to reflect a more accurate HI profile for wooden poles.

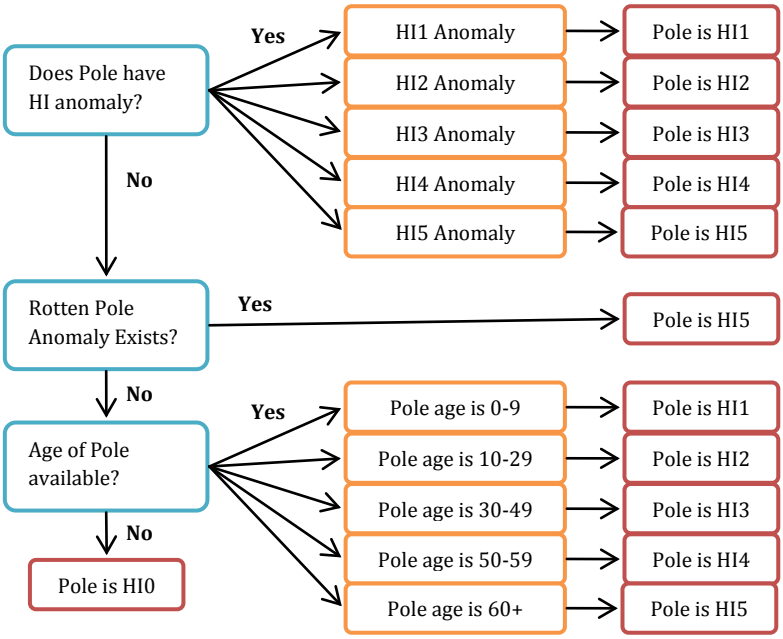


Figure 3 - Health Index Calculation – New Methodology

Furthermore, if a pole has been disposed and was associated with an ESQCR non-compliance issue, it is assigned a HI5.

HI0 or HI Unknown for disposals in RRP purposes is divided across HI1-HI5 in the same proportion as the existing profile of disposals for each HI reporting activity and voltage level. For example:

Asset Activity	HI0	HI1	HI2	HI3	HI4	HI5	Total
Existing Profile	750	0	50	200	500	750	2250
New Profile	0	0	75	300	750	1125	2250

Figure 4 – Disposal HI Re-profile New Methodology

HI0 for additions are assumed to be HI1 (New Assets).

See document ASSET-01-019 for more information on Asset Health, Criticality & Outputs Methodology used in SP Energy Networks.

Asset Activity
Each pole addition and disposal is assigned an Asset Activity – this is the reason behind the pole movement, for example this may be faults or customer connections. For the HI outputs, OFGEM only look as Asset Replacement movements, however, other movements are still important as it affects our overall HI profile of our network. This information is provided to Data Management as part of the data sheets that are returned when the work has been carried out.

Objective
This document will explain our previous RRP submissions and how we plan to improve our HI output position. This will primarily be based on pole information that has not been recorded on our IT system, ESRI, but can be used to justify the Health Index of a pole and which Asset Activity it should be classified as. To do this, a database for SP Distribution and SP Manweb has been created, which allows us to analyse all the sources of information and produce our HI outputs position.

SP Distribution

RRP Submissions

RRP 2010/11 Submission

The 2010/11 submission was based on an extract from SAP, where the master system ESRI maps information to the SAP system. This allows us to use SAP for maintenance and inspection programming. However, there have been issues with this mapping and it was not until 2012 when this issue was addressed and processes put in place to correct this. This means that mapping the 2010/11 submission to the current live ESRI view is very difficult. Furthermore, the asset activity was lost in SAP and therefore the original data set did not show many disposals against asset replacement so an adjustment was made to the submission as shown below. This is detailed in the narrative for the 2010/11 submission.

33kV Poles

	Data from IT Reports			Proposed		
	Additions	Disposals	Net	Additions	Disposals	Net
V1 Data Cleanse	0	25	-25	0	194	-194
V2 Connections	4	0	4	4	1	3
V3 Reinforcement	2	0	2	2	2	0
V4 Other	8	2	6	8	8	0
CV3 Asset Replacement	112	0	112	112	112	0
Unknown	0	290	-290			0
Total	126	317	-191	126	317	-191

11kV Poles

	Data from IT Reports			Proposed		
	Additions	Disposals	Net	Additions	Disposals	Net
V1 Data Cleanse	0	32	-32	0	803	-803
V2 Connections	117	4	113	117	12	105
V3 Reinforcement	83	4	79	83	83	0
V4 Other	106	29	77	111	110	1
CV3 Asset Replacement	1004	38	966	1004	1004	0
Unknown	5	1905	-1900			0
Total	1315	2012	-697	1315	2012	-697

LV Poles

	Data from IT Reports			Proposed		
	Additions	Disposals	Net	Additions	Disposals	Net
V1 Data Cleanse	6	44	-38	6	896	-890
V2 Connections	5	2	3	5	1	4
V3 Reinforcement	48	2	46	48	48	0
V4 Other	22	5	17	30	30	0
CV3 Asset Replacement	1167	43	1124	1167	1179	-12
Unknown	8	2058	-2050			0
Total	1256	2154	-898	1256	2154	-898

Figure 5 – 2010/11 SPD RRP Adjustments

As this was a high level adjustment, when we take a single pole from the 2010/11 submission, it is difficult to determine what category it was reported as in the submission. For example the table above shows 2058 LV poles were assigned as Asset Activity of Unknown; however, over a thousand of them have been reported as Asset Replacement.

All the poles in the 2010/11 submission file are located in the live ESRI file except 539 poles that appear in SAP but not in ESRI. These were all reported as Data Cleanse in the 2010/11 RRP as they were pre DPCR5 disposals bulk loaded into SAP. The 2010/11 detailed file used in the Poles Database has been updated to mirror the above adjustments, as well as the HI outputs position submitted to OGFEM. The outputs position after the first year of DPCR5 is shown on the following page. This is based on the accumulative HI position for each value (additions and disposals), reported against Asset Replacement only. How the HI0's were spread is explained in the first section. The % outputs shown are for the SP Distribution total across all HI output categories. In SPD, Poles makes up 22.33% of the total DPRC5 outputs. Therefore the 1.37% shown is comparable to a straight line 5 year delivery of 4.5% per annum. Thus this indicates around 1/3 of outputs delivered in 2010/11 against D5 settlement for wooden poles.

	RRP Submission 2010/11 *					
	HI					
	1	2	3	4	5	% Ouputs
LV	1088	-73	-531	-493	-3	**0.76%**
HV	858	-146	-538	-173	-1	**0.53%**
EHV	101	-6	-95	0	0	**0.09%**
						1.37%
	* Data Set from SAP					

Figure 6 – 2010/11 SPD RRP HI Outputs

RRP 2011/12 Submission

The 2011/12 submission was based on an extract from ESRI. Therefore it was easy to map the submission to the current live ESRI report. Since the 11/12 submission, there have been some minor adjustments to number of poles and asset activity. The table below shows the HI outputs table that was submitted to OFGEM.

	RRP Submission 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	1053	0	-542	-485	0	**0.74%**
HV	1179	-116	-503	-311	0	**0.67%**
EHV	478	-4	-503	0	0	**0.44%**
						1.86%

Figure 7 – 2011/12 SPD RRP HI Outputs

This indicates that we reported no HI5 pole disposals as part of the 2011/12 submission. In fact when we look at the current ESRI data set for 2011/12 (shown below) we can see that the live ESRI data shows over 750 HI5 poles were disposed in 2011/12. Therefore there was an error in the HI tables for the 2011/12 submission.

	New Profile 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	1118	-36	-230	-251	-574	**1.23%**
HV	1198	-115	-379	-286	-172	**0.88%**
EHV	479	-4	-492	0	-12	**0.47%**
						2.58%

Figure 8 – 2011/12 Re-run HI Outputs

This will be taken into consideration when discussing the 2012/13 RRP submission later on in this document.

As part of this exercise, it also became evident that the data sets run from ESRI were only looking at the last instance of a pole movement. This means that if a pole had been added and disposed of in the same regulatory year then it would only appear as a disposal and would not have been included in the addition count. This has now been corrected but means we may have understated our position in 2010/11 and 2011/12 RRP submissions. Any "missed" additions or disposals however will be included in the 2012/13 submission so we will be credited accordingly.

RRP 2012/13

Asset Movements File

The starting point for the RRP submission is the IT extract from ESRI showing all the pole movements. The current report shows all movements in DPCR5 from April 2010 to March 2013. Before this file is input to the poles database, some manual adjustments are made to the health index of some poles as described in the next section. Furthermore, a script in excel is used to carry out the X-Y matching, also described in the following section.

Non HI1 Additions

Any time a new pole is added to our system it should be a HI1 as we do not re-use poles. The only exception to this should be when we discover a pole which may have been there for a long time and is, for example a HI3, but has never been loaded into ESRI. In this case, a HI3 addition should be seen against an Asset Activity of Data Cleanse. For all the Non HI1's where the HI banding had been determined from the HI anomaly code, these poles were checked in SAP to see when the anomaly code was added to the pole. If it was added after the Addition date of the pole, it was assumed the HI anomaly code referred to the previous pole and therefore the HI of the addition was set to HI1 (or corresponding age based HI if the pole had an impregnated date). Similarly, if a matching disposal was found, the HI of the disposal was set to the HI anomaly code of the addition (if the disposal's current HI was at a lower level to the matching addition HI).

Non HI5 Disposals

Generally, our pole replacement strategy for Asset Replacement is to only replace a pole when it is end of life HI5 (rebuilds are most common exception), so for all non HI5 Disposals, a check was made to see when the HI anomaly code was placed versus the addition date of a matching addition pole. If the anomaly code was placed after the new pole was added, it was assumed that the anomaly code was placed in error on the old pole. The HI for the disposal was then set to a corresponding HI based on the rotten pole anomaly code or age of the pole (see earlier in document for calculation of HI).

X-Y Matching

This is where we use the XY co-ordinates of an addition pole and match it to within 3m of a disposal. This allows us to adjust the Asset Activity to make the data more accurate. For this, we only adjust the disposal category if the Asset Activity of the addition is "Asset Replacement" and the disposal category is either "Other", "Data Cleanse" or "Unknown". For example, if the pole addition was against Asset Replacement and the matching pole disposal was against Connections, we would not change this information. However if the addition was "Asset Replacement" and the disposal was "Unknown", then it would be safe to say the pole change was part of an Asset Replacement job so the disposal should also be a Asset Replacement category. Furthermore, where an additional pole had a matching disposal, the HI of the addition was set to HI1 if was not already, as any pole replacement carried out by SP will be a brand new pole.

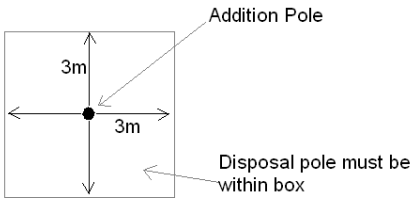


Figure 9 – X-Y Matching Diagram

Sources of Information

The following pages describe sources of information that can be used to justify a revised HI position for disposed wooden poles. These sources will then be combined to provide a new HI position for SP Distribution.

Category 1-5 Low Ground Clearances

As part of SP's work on removing all Low Ground Clearances on our network, any pole change associated with an LGC is assigned HI5. Although this is not picked up in our ESRI system, we have the original list of circa 55,000 LGC's in SP Distribution that is from our SAP system and is by ENID number (this is the unique reference number for an asset used in both SAP and ESRI). We can then compare this list with our live ESRI data set and adjust the HI for any matching pole disposal to a HI5. This does not affect the Asset Activity code for the disposal.

HI Reporting 2013

In January 2013, SP programme managers began recording additions and disposals manually along with any HI information. This would allow SP to monitor what programme managers were delivering and how it compared to our IT systems. This could also be used to justify any HI changes that are not recorded in the IT system. For example, if a HI5 pole

was disposed but this information was not in identified in ESRI before the disposal, these HI reporting sheets can be used to adjust the pole disposal to HI5 before submitting to OFGEM as part of the 2012/13 RRP submission. This method can change both the Asset Activity (to Asset Replacement only) and HI information of a pole.

AIS 24K
This is a list of circa 24,000 poles (both SPD and SPM) of rotten poles that were not transferred into our SAP defect reporting system when we moved from AIS to SAP. An exercise has now been carried out to transfer over any defects on existing poles. This was completed in April 2013 therefore this file is used to match any disposal in the first 3 years of DPCR5 and set the HI to HI5.

Contractor Information

CIET
When CIET survey any SP job, all the pole information is put into a database. This database is then used to help build up a target price for each project. In the poles database, this survey database is matched to any pole disposal in ESRI. Where a match is found the Asset Activity of the pole is set to "Asset Replacement" and the HI of the pole disposal is determined using the information from the CIET survey. This will be either the condition of the pole, age of the pole or any comments made during the patrol. For example, if the pole was surveyed as "Decayed", this would be assigned a HI5. Furthermore, if the patrol comments stated that the Depth Mark was high, then this would also be assigned a HI5. The HI based on the age of the pole follows the new HI methodology mentioned earlier in this paper. The comprehensive table of assigning HI5 values is shown in the SPD Poles Database. Where the pole can be designated a HI based on age, condition and patrol comments, the highest HI is assigned to the pole. The CIET poles database covers poles at LV, HV and EHV. Also, there are an additional 5 projects that were not part of the CIET database. The survey information for these has been added to the SP Poles Database.

ENS
Similar to CIET, ENS uses an access database to store all the pole survey information for both HV and EHV poles, which is then used to produce target prices for each OHL project. In the SPD Poles Database, this survey database is used to match any pole disposal in ESRI. Where a match is found the Asset Activity of the pole is set to "Asset Replacement" and the HI of the pole is determined using the information from the ENS survey database. This will be based on the highest HI value from the condition of the pole, age of the pole, patrol comments or where the pole has a depth mark of >= 1.7m (these poles should have been changed and will be assigned as HI5). The HI based on the age of the pole follows the new HI methodology mentioned earlier in this paper. The comprehensive table of assigning HI5 values is shown in the SPD Poles Database. Also, there are an additional 5 projects that were not part of the ENS database. The survey information for these has been added to the SP Poles Database.

ENS LV work was surveyed and the paper copy of the OHL maps were updated manually onsite. This map was then converted to a target price for the work but no pole condition information or reason for pole changes were transferred to the target price document. This would mean that a manual exercise would be required to go through the paper copies to extract pole condition information for all the LV pole changes. This has not been carried out.

Powerteam
All of Powerteams HV and EHV projects had CBA's carried out prior to the work on site. These CBA's were compiled and pole information extracted for inputting to the database. Where a pole change was to take place, the "Reason" identified in the CBA and the age of the poles was used to determine the HI of the disposed pole. The highest HI between reason and age was then assigned to each pole change.

For Powerteams LV work, there was no electronic format suitable to quickly gather pole information. This is because for each LV job, the surveyor would highlight on the pdf maps the work required and the condition of each pole change. Therefore a manual exercise was carried out to go through all the LV pdf maps and extract the pole condition information into excel to allow this to be added to the SPD Poles Database and match pole disposals to our ESRI dataset. Each description for the pole change was then used to assign a HI to the disposal. For example "Rotten" was assigned a HI5.

Freedom
For LV pole information, the 2011 data is from the weekly tracker. This file identifies all the ENIDs where Freedom has changed any poles that were either rotten or part of a Low Ground Clearance solution. Either reason is assigned a HI5. The 2012 data at present is a combination of the 2012 weekly tracker (only ran until July 2012) and the completion certificates from Freedoms 2012 LV work. The completion certificates were used to populate the weekly tracker so contain the same information – ENID numbers of pole changes due to rotten or low ground clearance issues. These will be assigned HI5 if a matching disposal is found in the ESRI record set and the Asset Activity set to "Asset Replacement".

For HV information, Freedom provided the CBA's for the 2012 HV and EHV work, with the exception of circuits that had CBA's prior to handing over to Freedom. The information from these CBA's was extracted and linked to the ESRI live dataset. Where a matching disposal was found and the CBA identified it as a pole replacement, this pole was assigned to HI5 and "Asset Replacement". If the pole was not identified to be replaced in the CBA but was disposed in the ESRI data set, then the age of the pole was used to determine the HI.

PoleTech

Some survey work carried out by Poletech in 2009 and 2010 was never updated in our corporate IT system. Therefore some of these surveys were used to update the HI of pole disposals based on the condition based information in these surveys. For example, if the survey identified the pole as decayed, it would be set to HI5.

SPD Poles Database

In order to analyse all the data from the different sources, all the information was placed in an Access database. This allowed us to quickly look at scenarios for applying rules to different data sources and also allows us to quickly update any sources of information, including updates to the live ESRI data set. In the database there are a range of options that can be used to provide different possible HI output positions. Once a new HI position has been created in the database, this information is pasted into an Excel file to carry out some final checks and balancing. The Excel file then translates the tables into a % HI position for SPD Health Index.

There are a number of reports / checks that can be run in the database but the main menu is where the user can select which data set and rules to apply to the original live ESRI data set to produce a new revised data set and hence a new HI outputs position. The picture on the following page shows the main menu and different options available.

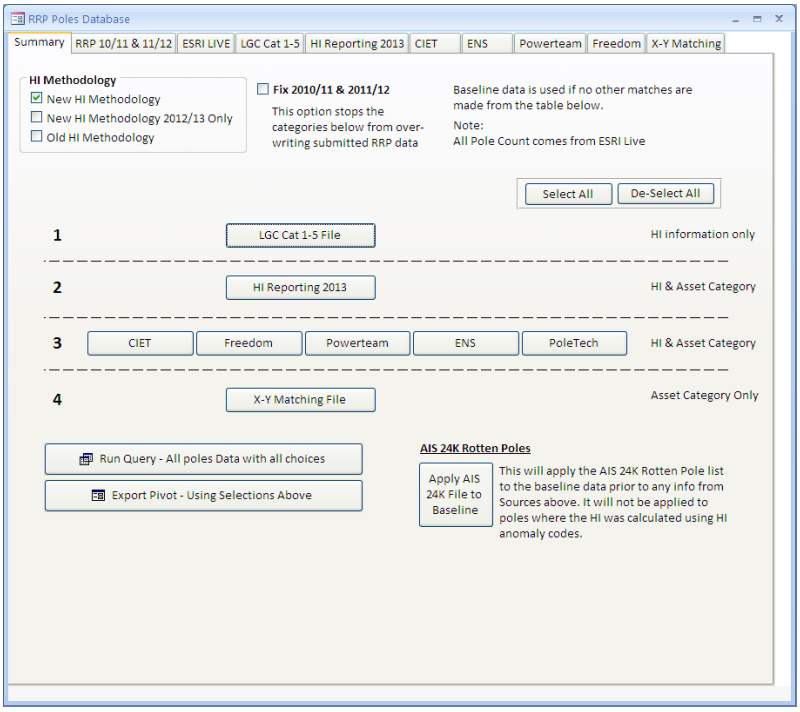


Figure 10 – SPD Poles Database Main Menu

This allows different sources of data to be used, different HI methodology (described at the beginning of this document), and different possible scenarios for completing the 2012/13 RRP.

New HI Outputs Position

The database provides a new HI outputs position by combining all the information from the different sources, applying changes to HI information and Asset Activity information to each pole addition and disposal where appropriate.

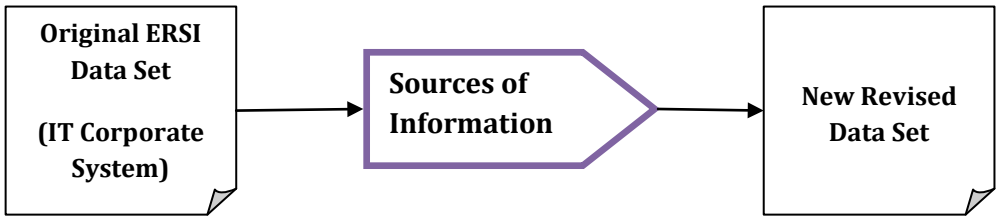


Figure 11 – SPD Poles Database Process

The diagram shown on the following page illustrates how all the different information is linked and the priorities used when applying data sets to the source data set. Different options can be selected for how the previously submitted RRP data is treated but for example, if we selected to ignore previously submitted data and apply the new HI methodology for a pole, then the pole disposal would first be checked if it is in the Cat 1-5 LGC file (Level 1). If it is, the HI of the pole would be set to HI5. We would then move on to Level 2, the HI Reporting 2013 file. If the pole is matched, the HI and Asset Activity would be set based on this file, but the HI would only use the Level 2 HI if it did not match at Level 1. Then the pole is checked at Level 3, the contractor information. If matched at this level, the pole HI and Asset Activity would be set based on the contractor info. Similar, any matches at a higher level would prevent a match from a lower level. The pole is then checked at Level 4, XY matching. This will not affect the HI of the pole but would re-class the pole as "Asset Replacement" where matched. For more information on how the different sources operate, see page 6.

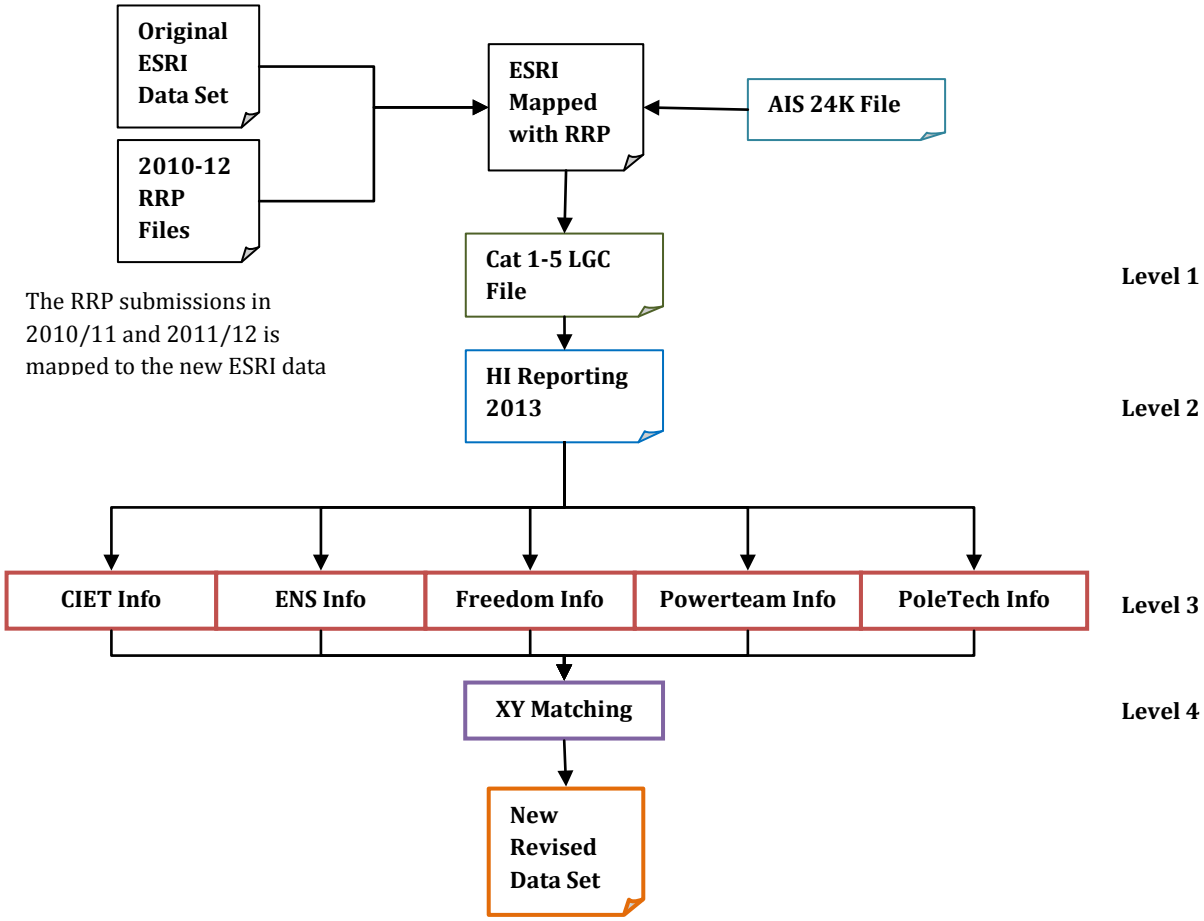


Figure 12 – SPD Poles Database Detailed Linking

Example
Pole disposal is classed as HI0 (unknown) and "Unknown" Asset Activity. The disposal is found in the Cat 1-5 LGC file so for the new profile the pole disposal is set to HI5. Then, in Level 3, the pole is found in the Powerteam data set with a HI3

(based on Age of pole only). The HI of this disposal would remain a HI5 but now the pole would be classed as "Asset Replacement" and therefore count towards HI outputs as this is based on "Asset Replacement" poles only.

New Revised Data Set
The new revised data set is exported to excel to carry out some checks and add "Missing Disposals". These are poles which have been identified by contractors and programme managers as having been disposed pre-April 2013 but have not been put through our IT system yet. These will be processed this year. The table shown below summarises the missing disposals for SPD. For each of these disposals, the ENID number has been identified.

	Source	Description	No. Of Poles
SPD	HI2013	OHL Manager HI Tracking Sheet for 2013	245
	Freedom	From Freedom's LV tracking sheets, indicating ENIDs of pole replacements in 2011 and 2012	213
	Powerteam	From Powerteams completed LV work pdf's in 2012	113
	CIET	From CIET database where CIET have surveyed the pole as rotten and that the work had been completed	152
		TOTAL	**723**

Figure 13 – SPD Missing Disposals

From this final data set, the spread of the HI0 across HI1 to HI5 (described on page 2) takes place and all produce the output % tables and graphs that are shown in the following section and appendices. This final data set is also used to complete all the RRP tables (see Appendix 3) and HI tracking workbooks.

RRP 2012/13 Submission – Final Tables

After deliberating numerous methods, SP have decided not to restate any previous submission. The 2012/13 submission will be produced from the poles database, utilising all the possible sources of information to maximise the 2012/13 return to OFGEM.

To provide this view, all sources are selected in the database and the new HI methodology is selected. Also "Fix 2010/11 & 2011/12" option is selected, which means that poles previously reported will not be adjusted in any way. All other poles will be shown in the 2012/13 table.

The full detail of this option is shown in Appendix 1. The top tables show what has previously been submitted for the first 2 years of DPCR5 plus a 2012/13 table based on IT data only (ESRI) and the new HI methodology. This shows that we would be at 8.02% for the first 3 years of D5. This is based on the 100% being the total SPD HI outputs across all categories, not just wooden poles. Wooden poles makes up 22.3% of SPD HI outputs, so this would mean we have completed 8.02/22.3 = 36% of our wooden pole outputs after 60% of the time in DPCR5.

The second set of tables shows the revised position. The figures for the first 2 years of DPCR5 do not change as we are not restating our position. The 2012/13 table shows the revised movements from the pole database. This table indicates we have completed 11.19% of HI outputs which is below the 12.9% we indicated to OFGEM in January and below a straight line view of DPCR5 outputs of 13.4%.

Full Restated DPCR5 Position (New HI Methodology for 2012-13 Only)
If SP had decided to provide OFGEM with a full restated position, SPD would have completed circa 14.17% of HI outputs. This is based on amending the HI or Asset Activity of a pole movement based on all the sources described in this document. This could further be increased to 14.90% if we carried a similar adjustment to 2010/11 as we did for the 2010/11 RRP submission, where we moved disposals from the Asset Activity "Unknown" to Asset Replacement to match the additions.

Summary
The graph below shows the HI outputs for IT, the 2012/13 Submission (2 years of previous RRP submissions plus option discussed above) and the potential of a full DPCR5 restatement (with additional HI for the 2010/11 adjustment). The red line indicates the target for end of 2012/13 submitted to OFGEM in January 2013.

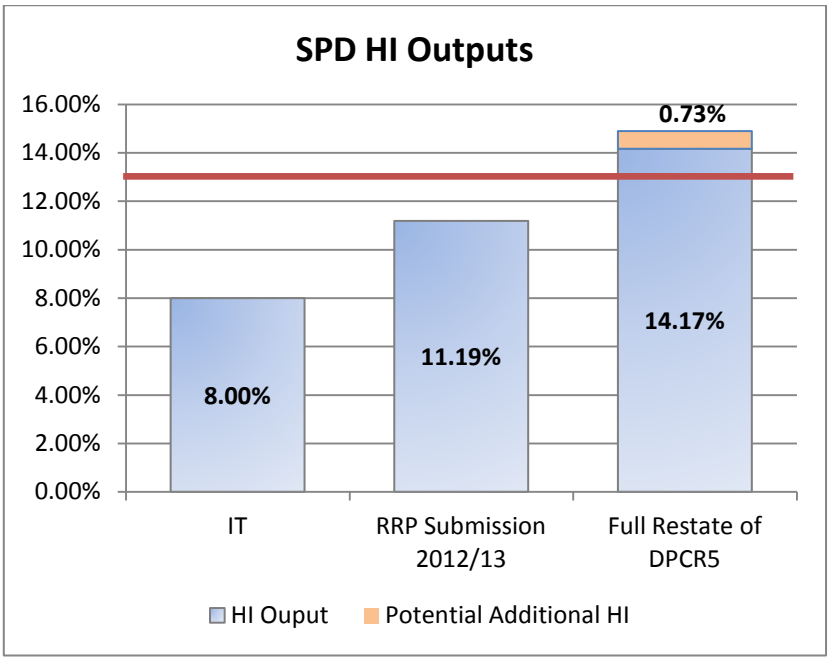


Figure 14 – SPD Poles Summary – Options v 12.9% Target

SP Manweb

This SP Manweb section follows the same principles and methodology as described in SP Distribution. Therefore only updated tables/figures and any exceptions will be shown.

RRP Submissions

RRP 2010/11 Submission

33kV Poles						
	Data from IT Reports			Proposed		
	Additions	Additions	Net	Additions	Disposals	Net
V1 Data Cleanse	0	0	0	0	35	-35
V2 Connections	0	0	0	0	0	0
V3 Reinforcement	0	0	0	0	0	0
V4 Other	10	0	10	11	11	0
CV3 Asset Replacement	23	0	23	23	23	0
Unknown	1	69	-68			0
Total	34	69	-35	34	69	-35
11kV Poles						
	Data from IT Reports			Proposed		
	Additions	Disposals	Net	Additions	Disposals	Net
V1 Data Cleanse	15	22	-7	15	211	-196
V2 Connections	116	12	104	116	12	104
V3 Reinforcement	32	1	31	32	32	0
V4 Other	211	10	201	217	217	0
CV3 Asset Replacement	599	15	584	599	599	0
Unknown	6	1011	-1005			0
Total	979	1071	-92	979	1071	-92
LV Poles						
	Data from IT Reports			Proposed		
	Additions	Disposals	Net	Additions	Disposals	Net
V1 Data Cleanse	26	74	-48	26	153	-127
V2 Connections	179	8	171	179	18	161
V3 Reinforcement	88	4	84	88	88	0
V4 Other	476	8	468	478	478	0
CV3 Asset Replacement	2801	72	2729	2801	2812	-11
Unknown	2	3383	-3381			0
Total	3572	3549	23	3572	3549	23

Figure 15 – 2010/11 SPM RRP Adjustments

As this was a high level adjustment, when we take a single pole from the 2010/11 submission, it is difficult to determine what category it was reported as in the submission. For example the table above shows 3383 LV pole disposals were assigned as Asset Activity of Unknown; however, over two thousand of them have been reported as Asset Replacement.

All the poles in the 2010/11 submission file are located in the live ESRI file except 75 poles that appear in SAP but not in ESRI. 72 of these were reported in the 2010/11 RRP as Data Cleanse. The remaining 3 were against Asset Replacement and Demand connections. The 2010/11 detailed file used in the Poles Database has been updated to mirror the above adjustments, as well as the HI outputs position submitted to OGFEM. The outputs position after the first year of DPCR5 is shown on the following page. This is based on the accumulative HI position for each value (additions and disposals), reported against Asset Replacement only. How the HI0's were spread is explained in the first section. The % outputs shown are for the SP Manweb total across all HI output categories. In SPM, Poles makes up 11.22% of the total DPRC5 outputs. Therefore the 0.78% shown is comparable to a straight line 5 year delivery of 2.24% per annum. Thus this indicates around 1/3 of outputs delivered in 2010/11 against D5 settlement for wooden poles.

	RRP Submission 2010/11 *					
	HI					
	1	2	3	4	5	% Ouputs
LV	2438	-280	-1753	-414	-2	**0.59%**
HV	482	-45	-402	-35	0	**0.12%**
EHV	13	0	-13	0	0	**0.01%**
						0.72%
	* Data Set from SAP					

Figure 16 – 2010/11 SPM RRP HI Outputs

RRP 2011/12 Submission

	RRP Submission 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	2956	-207	-1477	-555	0	**0.59%**
HV	1083	-84	-719	-194	-2	**0.30%**
EHV	51	-2	-15	-1	0	**0.01%**
						0.90%

Figure 17 – 2011/12 SPM RRP HI Outputs

This indicates that we reported only 2 HI5 pole disposals as part of the 2011/12 submission. In fact when we look at the current ESRI data set for 2011/12 (shown below) we can see that the live ESRI data shows over 650 HI5 poles were disposed in 2011/12. Therefore there was an error in the HI tables for the 2011/12 submission.

	New Profile 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	2993	-182	-1130	-472	-485	**0.82%**
HV	1108	-78	-585	-177	-186	**0.41%**
EHV	53	-2	-13	0	-5	**0.01%**
						1.25%

Figure 18 – 2011/12 Re-run HI Outputs

This will be taken into consideration when discussing the options for the 2012/13 RRP submission later on in this document.

RRP 2012/13

Sources of Information

The following pages describe sources of information that can be used to justify a revised HI position for wooden poles. These sources will then be combined to provide a new HI position for SP Distribution.

Category 1-5 Low Ground Clearances
As part of SP's work on removing all Low Ground Clearances on our network, any pole change associated with an LGC is assigned HI5. Although this is not picked up in our ESRI system, we have the original list of circa 80,000 LGC's in SP Manweb that is from our SAP system and is by ENID number (this is the unique reference number for an asset used in both SAP and ESRI). We can then compare this list with our live ESRI data set and adjust the HI for any matching pole disposal to a HI5. This does not affect the Asset Activity code for the disposal.

Contractor Information

CIET
CIET have provided a list of rotten pole replacements from 2011 onwards and this has been matched to the live ESRI data file. Where a match has been found, this pole disposal has been assigned a HI5 and the Asset Activity set to "Asset Replacement".

Freedom
Freedom provided the original replacement pole lists for any HV and EHV project. Using the pole information such as pole number and GPS readings, we were able to match these lists to pole ENID numbers in UMV. This allowed us to use the live ESRI data file to try and find any matching additions and disposals. Any matching disposal was assigned a HI5 and the Asset Activity set to "Asset Replacement".

ENS, Powerteam and Poletech
In SP Manweb we have not used any information from these contractors.

SPM Poles Database

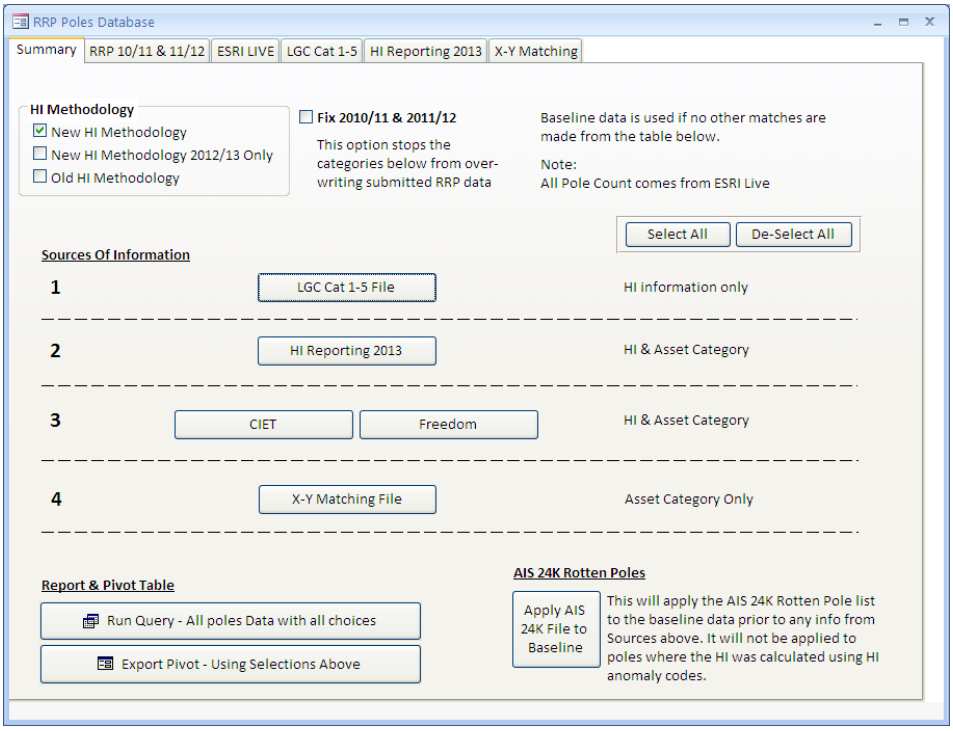


Figure 19 – SPM Poles Database Main Menu

New HI Outputs Position

The diagram shown below illustrates how all the different information is linked and the priorities used when applying data sets to the source data set. Different options can be selected for how the previously submitted RRP data is treated but for example, if we selected to ignore previously submitted data and apply the new HI methodology for a pole, then the pole disposal would first be checked if it is in the Cat 1-5 LGC file (Level 1). If it is, the HI of the pole would be set to HI5. We would then move on to Level 2, the HI Reporting 2013 file. If the pole is matched, the HI and Asset Activity would be set based on this file, but the HI would only use the Level 2 HI if it did not match at Level 1. Then the pole is checked at Level 3, the contractor information. If matched at this level, the pole HI and Asset Activity would be set based on the contractor info. Similar, any matches at a higher level would prevent a match from a lower level. The pole is then checked at Level 4, XY matching. This will not affect the HI of the pole but would re-class the pole as "Asset Replacement" where matched. For more information on how the different sources operate, refer back to earlier in this document.

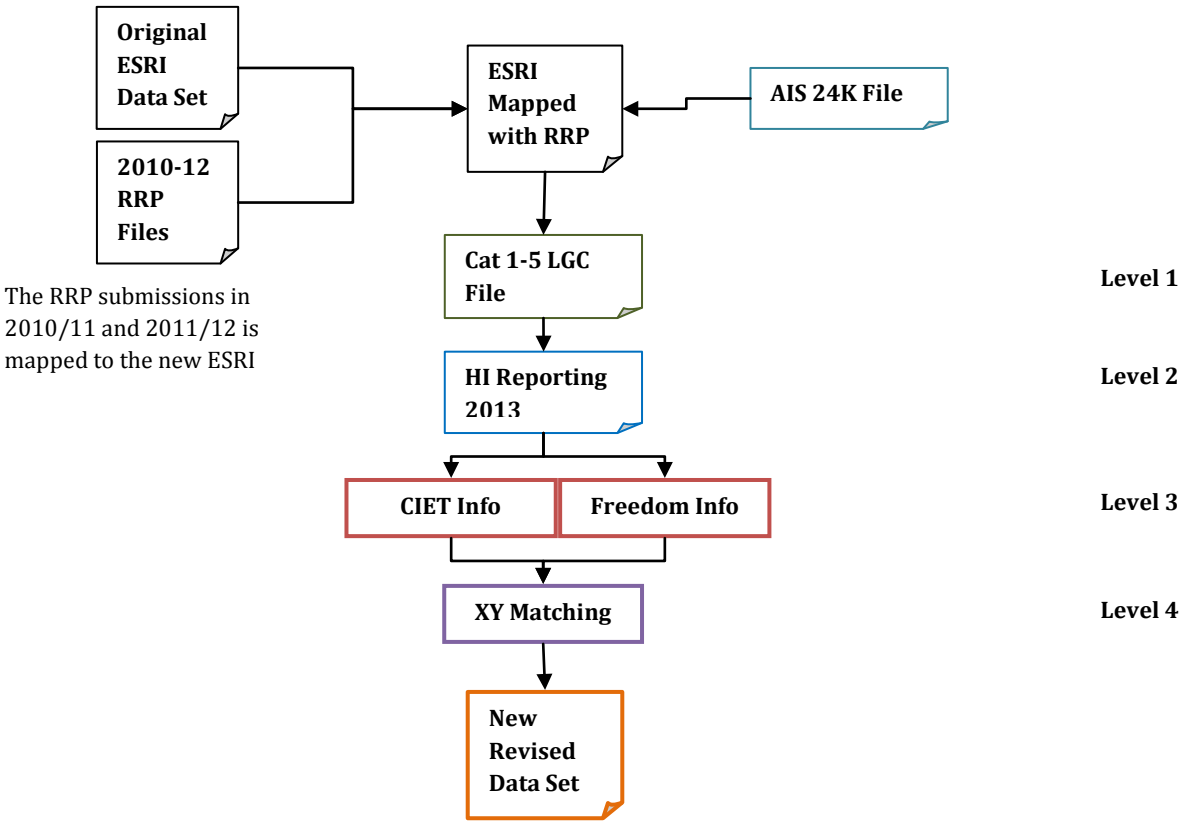


Figure 20 – SPM Poles Database Detailed Linking

Example
Pole disposal is classed as HI0 (unknown) and "Unknown" Asset Activity. The disposal is found in the Cat 1-5 LGC file so for the new profile the pole disposal is set to HI5. Then, in Level 3, the pole is found in the Freedom data set with a HI5. The HI of this disposal would remain a HI5 but now the pole would be classed as "Asset Replacement" and therefore count towards HI outputs as this is based on "Asset Replacement" poles only.

New Revised Data Set

	Source	Description	No. Of Poles
SPM	HI2013	OHL Manager HI Tracking Sheet for 2013	811
	Freedom	Freedom's provided list of pole replacements (discounting those that were marked as incomplete (yellow))	356
	CIET	CIET's provided lists of pole replacements	24
		TOTAL	**1191**

Figure 21 – SPM Missing Disposals

RRP 2012/13 Submission – Final Tables

The full detail of this option is shown in Appendix 2. The top tables show what has previously been submitted for the first 2 years of DPCR5 plus a 2012/13 table based on IT data only (ESRI) and the new HI methodology. This shows that we would be at 4.37% for the first 3 years of D5. This is based on the 100% being the total SPM HI outputs across all categories, not just wooden poles. Wooden poles makes up 11.22% of SPM HI outputs, so this would mean we have completed 4.37/11.22 = 38.9% of our wooden pole outputs after 60% of the time in DPCR5.

The second set of tables shows the revised position. The figures for the first 2 years of DPCR5 do not change as we are not restating our position. The 2012/13 table shows the revised movements from the pole database. This table indicates we have completed 6.60% of HI outputs which is above the 5.9% we indicated to OFGEM in January and below a straight line view of DPCR5 outputs of 6.7%.

Full Restated DPCR5 Position (New HI Methodology for 2012-13 Only)
If SP had decided to provide OFGEM with a full restated position, SPM would have completed circa 8.96% of HI outputs. This is based on amending the HI or Asset Activity of a pole movement based on all the sources described in this document. This could further be increased to 9.47% if we carried a similar adjustment to 2010/11 as we did for the 2010/11 RRP submission, where we moved disposals from the Asset Activity "Unknown" to Asset Replacement to match the additions.

Summary
The graph below shows the HI outputs for IT, the 2012/13 Submission (2 years of previous RRP submissions plus option discussed above) and the potential of a full DPCR5 restatement (with additional HI for the 2010/11 adjustment). The red line indicates the target for end of 2012/13 submitted to OFGEM in January 2013.

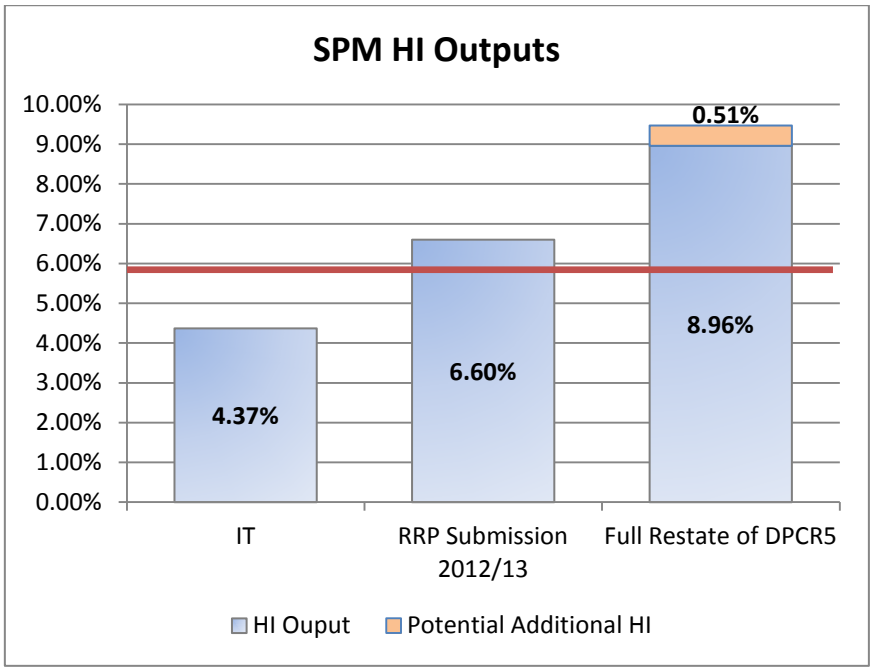


Figure 22 – SPM Poles Summary – Options v 5.9% Target

RRP Tables

Appendix 3 shows the final movement numbers that will be used to complete the 2012/13 RRP submission. The tables show the additions and disposals against each of the delivery areas, and a reference to the RRP tables is shown in red underneath each column. The data cleanse column is superseded by the highlighted yellow data cleanse column. This is due the work being undertaken by the data improvement project which has been looking at our total asset population in our corporate systems. The new closing balance is then calculated from our IT system and then the missing disposals are subtracted from the total. The data cleanse column is then adjusted so that the closing balance in the RRP submission is equal to our IT system minus the missing disposals.

HI Tracking Workbook

Appendix 4 shows the final HI Tracking workbooks for wood poles. The "Variance due to Material Changes" line has been used to balance the closing balance so that it matches our IT system minus the missing disposals. The large variance shown in this line is due to our change in HI methodology as described at the beginning of this document. For "Asset register movements for other investment" and "Impact on volumes of data cleansing (before Material Changes)" where the HI is not known, it has been determined using the same methodology described at the beginning of this document.

Summary Position

Appendix 5 shows the pole movements for RRP 2012/13 along with the pole movements for a full DPCR5 restatement.

Appendices

Appendix 1 - RRP Data Review - Poles - SPD

Summary v Baseline (Fixed RRP - New HI Methodolgy 2012/13)

* Asset Replacement Poles Only

	RRP Submission 2010/11 *					
	HI					
	1	2	3	4	5	% Ouputs
LV	1088	-73	-531	-493	-3	**0.75%**
HV	858	-146	-538	-173	-1	**0.51%**
EHV	101	-6	-95	0	0	**0.09%**
						1.35%

* Data Set from SAP
* Based on Old HI Methodology

	RRP Submission 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	1053	0	-542	-485	0	**0.73%**
HV	1179	-116	-503	-311	0	**0.65%**
EHV	478	-4	-503	0	0	**0.45%**
						1.84%

* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology

	Apr 2012 -> Mar 2013 (From ESRI) Plus Non Reported					
	HI					
	1	2	3	4	5	% Ouputs
LV	1423	-57	-244	-466	-797	**1.77%**
HV	2135	-179	-283	-646	-1014	**2.75%**
EHV	161	-2	-35	-94	-24	**0.30%**
						4.83%

* Data Set from ESRI - HI 0 have been spread across 1-5
* Based on New HI Methodology
* Does not contain missing disposals

D5 TOTAL
8.02%

New Profile Based on Revised Data Set

	New Profile 2010/11					
	HI					
	1	2	3	4	5	% Ouputs
LV	1088	-73	-531	-493	-3	**0.75%**
HV	858	-146	-538	-173	-1	**0.51%**
EHV	101	-6	-95	0	0	**0.09%**
						1.35%

* Data Set from SAP
* Based on Old HI Methodology

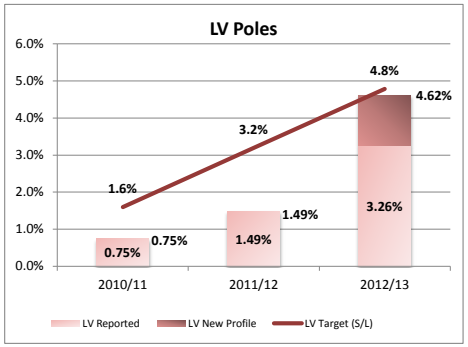
	New Profile 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	1053	0	-542	-485	0	**0.73%**
HV	1179	-116	-503	-311	0	**0.65%**
EHV	478	-4	-503	0	0	**0.45%**
						1.84%

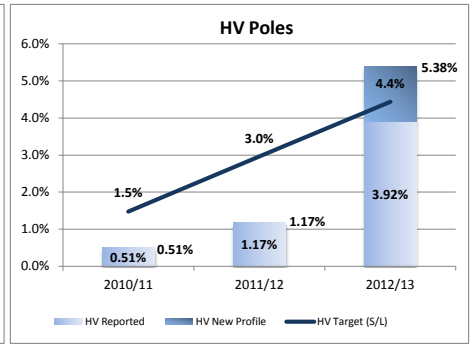
* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology

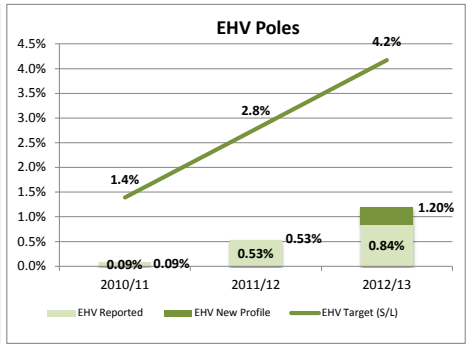
	New Profile Apr 2012 -> Mar 2013					
	HI					
	1	2	3	4	5	% Ouputs
LV	1559	-18	-43	-62	-2054	**3.13%**
HV	2313	-119	-176	-309	-2111	**4.21%**
EHV	173	-4	-29	-51	-174	**0.66%**
						8.00%

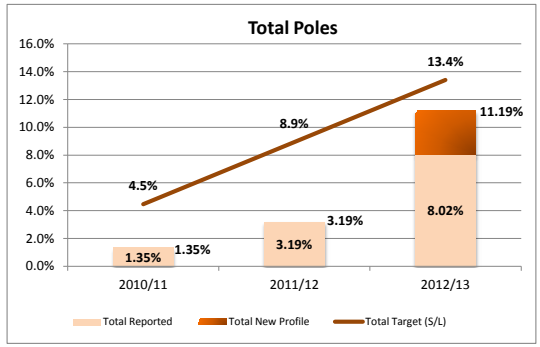
* Based on New HI Methodology
* Contains missing disposals

D5 TOTAL	Change
11.19%	**+3.18%**









Notes

Included missing disposals in new profile. These are where we have information that the pole has been removed but it has not been disposed in our IT systems.

Date : 17th June 2013

Appendix 2 - RRP Data Review - Poles - SPM

Summary v Baseline (Fixed RRP - New HI Methodolgy 2012/13)

* Asset Replacement Poles Only

	RRP Submission 2010/11 *					
	HI					
	1	2	3	4	5	% Ouputs
LV	2438	-280	-1753	-414	-2	**0.59%**
HV	482	-45	-402	-35	0	**0.12%**
EHV	13	0	-13	0	0	**0.01%**
						0.72%

* Data Set from SAP
* Based on Old HI Methodology

	RRP Submission 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	2956	-207	-1477	-555	0	**0.59%**
HV	1083	-84	-719	-194	-2	**0.30%**
EHV	51	-2	-15	-1	0	**0.01%**
						0.90%

* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology

	Apr 2012 -> Mar 2013 (From ESRI) Plus Non Reported					
	HI					
	1	2	3	4	5	% Ouputs
LV	3051	-84	-278	-565	-1954	**1.74%**
HV	1830	-55	-389	-562	-612	**0.95%**
EHV	61	-25	-59	-2	-14	**0.05%**
						2.74%

* Data Set from ESRI - HI 0 have been spread across 1-5
* Based on New HI Methodology
* Does not contain missing disposals

D5 TOTAL
4.37%

New Profile Based on Revised Data Set

	New Profile 2010/11					
	HI					
	1	2	3	4	5	% Ouputs
LV	2438	-280	-1753	-414	-2	**0.59%**
HV	482	-45	-402	-35	0	**0.12%**
EHV	13	0	-13	0	0	**0.01%**
						0.72%

* Data Set from SAP
* Based on Old HI Methodology

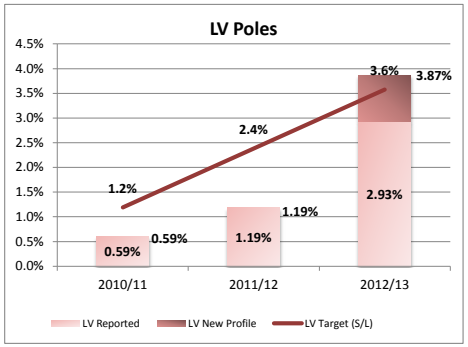
	New Profile 2011/12					
	HI					
	1	2	3	4	5	% Ouputs
LV	2956	-207	-1477	-555	0	**0.59%**
HV	1083	-84	-719	-194	-2	**0.30%**
EHV	51	-2	-15	-1	0	**0.01%**
						0.90%

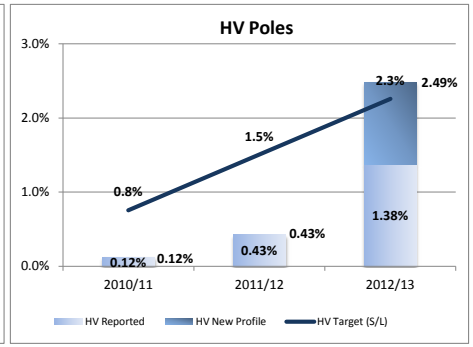
* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology

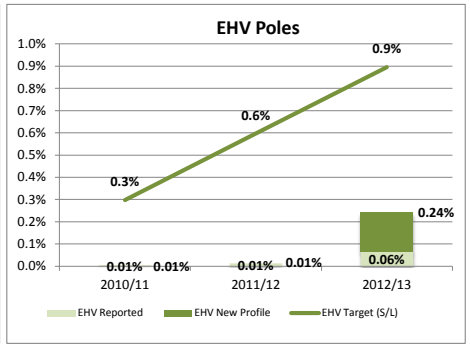
	New Profile Apr 2012 -> Mar 2013					
	HI					
	1	2	3	4	5	% Ouputs
LV	3309	-37	-76	-146	-3624	**2.68%**
HV	2437	-29	-182	-81	-2310	**2.06%**
EHV	61	-13	-9	-1	-151	**0.23%**
						4.97%

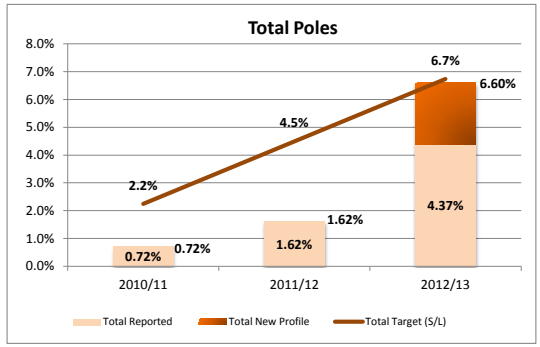
* Based on New HI Methodology
* Contains missing disposals

D5 TOTAL	Change
6.60%	**+2.23%**









Notes

Included missing disposals in new profile. These are where we have information that the pole has been removed but it has not been disposed in our IT systems.

Date: 17th June 2013

Appendix 3

SPD
2012/13 Movements

IGNORE - SEE NEW COLUMN

	ADDITION					DISPOSAL					
Voltage	Asset Replacement	Demand Connections	General Reinforcement	Other	Faults	Asset Replacement	Demand Connections	General Reinforcement	Other	Faults	Data Cleanse
LV Poles	1583	11	20	61	41	2201	94	12	102	68	-95
6.6/11kV Poles	2412	243	109	85	120	2814	128	16	73	115	-63
33kV Poles	177	59	30	5	6	262	16	2	13	4	-10
Grand Total	**4172**	**313**	**159**	**151**	**167**	**5277**	**238**	**30**	**188**	**187**	**-168**
	CV3	V2	V3	V4A	V4B	CV3	V2	V3	V4A	V4B	V1 - DC

2012/13			
Total Movements Plus DC	Total Required	Additional DC Required	New DC
-856	**-637**	**219**	**124**
-240	**2365**	**2605**	**2542**
-30	**2701**	**2731**	**2721**

	2012/13 Movements			
Closing Balance Mar 2012 RRP	JR Opening	JR Closing	Missing Disposals	New Closing Balance Based on Missing Disposals
62096	62417	61867	408	**61459**
185876	188702	188522	281	**188241**
35776	38510	38511	34	**38477**
			723	

SPM
2012/13 Movements

	ADDITION					DISPOSAL					
Voltage	Asset Replacement	Demand Connections	General Reinforcement	Other	Faults	Asset Replacement	Demand Connections	General Reinforcement	Other	Faults	Data Cleanse
LV Poles	3393	55	67	52	53	3967	59	54	276	63	-43
6.6/11kV Poles	2527	259	27	99	106	2692	81	10	256	102	-109
33kV Poles	61	3	15	4	4	174	0	2	15	3	-24
Grand Total	**5981**	**317**	**109**	**155**	**163**	**6903**	**140**	**66**	**547**	**168**	**-176**
	CV3	V2	V3	V4A	V4B	CV3	V2	V3	V4A	V4B	V1 - DC

2012/13			
Total Movements Plus DC	Total Required	Additional DC Required	New DC
-842	**2173**	**3015**	**2972**
-232	**-462**	**-230**	**-339**
-131	**-746**	**-615**	**-639**

	2012/13 Movements			
Closing Balance Mar 2012 RRP	JR Opening	JR Closing	Missing Disposals	New Closing Balance Based on Missing Disposals
125598	129478	128420	649	**127771**
166276	166662	166288	474	**165814**
21243	20633	20565	68	**20497**
			1191	

APPENDIX 4.1 - SPD LV OHL Support

LV OHL Support	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	64733	6103	0	17195	37530	3905	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	64733	6103	0	11771	41721	5138	Agreed Network Outputs
Assumed impact of deterioration	0	0	0	-5424	4191	1233	
31/03/2015 profile (with intervention)	61507	11014	0	9735	37277	3481	Agreed Network Outputs
DPCR5 Intervention plan	-3226	4911	0	-2036	-4444	-1657	
Mid Term Review Forecast							
31/03/2012 profile	62096	5274	0	17141	38362	1319	2011/12 Closing profile
Impact of material changes due to data cleansing		-136	-56	-619	-592	1	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		2193	-78	-1431	-1349	-3	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		1844	0	-556	-1245	-43	intervention driven by investment plan
DPCR5 Intervention (Overall)		*4037*	*-78*	*-1987*	*-2594*	*-46*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*0*	*0*	*-3360*	*-2408*	*5768*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	62096	*7118*	*0*	*13225*	*34709*	*7044*	
Variance to forecast intervention plan	**-589**	**3896**	**0**	**-3490**	**2568**	**-3563**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	61459	6786	3349	4976	5746	40602	2013/14 Closing profile
Impact of material changes due to data cleansing		5138	-56	16522	37770	1320	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		3866	-108	-1499	-1453	-2235	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*3866*	*-108*	*-1499*	*-1453*	*-2235*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	61459	*6786*	*3349*	*4976*	*5746*	*40602*	
Variance to forecast intervention plan	**48**	**4228**	**-3349**	**4759**	**31531**	**-37121**	

Annual Position

LV OHL Support	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**64733**	**6103**	**0**	**17195**	**37530**	**3905**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		-2748	227	2706	4	488	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**65410**	**3355**	**227**	**19901**	**37534**	**4393**	
Profile movements	*-677*	*2748*	*-227*	*-2706*	*-4*	*-488*	
31/03/2010	**65410**	**3355**	**227**	**19901**	**37534**	**4393**	
Impact on volumes of data cleansing (before Material Changes)	-890	-54	-56	-403	-374	-3	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-1244	-138	-93	-710	2769	-3072	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	-12	1088	-73	-531	-493	-3	
Asset register movements for other investment	4	77	-5	-35	-33	0	
31/03/2011	**63268**	**4328**	**0**	**18222**	**39403**	**1315**	
Profile movements	*-2142*	*973*	*-227*	*-1679*	*1869*	*-3078*	
Impact of forecast deterioration to 31/3/2015		*0*	*0*	*-4882*	*4880*	*2*	
31/3/2015 (forecast before further investment)	**63268**	**4328**	**0**	**13340**	**44283**	**1317**	
31/03/2011	**63268**	**4328**	**0**	**18222**	**39403**	**1315**	
Impact on volumes of data cleansing (before Material Changes)	-512	-82	0	-216	-218	4	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	26	1053	0	-542	-485	0	
Asset register movements for other investment	-686	-25	0	-323	-338	0	
31/03/2012	**62096**	**5274**	**0**	**17141**	**38362**	**1319**	
Profile movements	*-1172*	*946*	*0*	*-1081*	*-1041*	*4*	
Impact of forecast deterioration to 31/3/2015		*0*	*0*	*-3360*	*-2408*	*5768*	
31/3/2015 (forecast before further investment)	**62096**	**5274**	**0**	**13781**	**35954**	**7087**	
Asset register movements for Asset Replacement	0	1844	0	-556	-1245	-43	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**62096**	**7118**	**0**	**13225**	**34709**	**7044**	
31/03/2012	**62096**	**5274**	**0**	**17141**	**38362**	**1319**	
Impact on volumes of data cleansing (before Material Changes)	124	74	-14	46	117	-99	
Impact of deterioration (before Material Changes)		-527	527	-857	-2979	3836	
Variance due to Material Changes	0	292	2866	-11286	-29650	37778	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-618	1559	-18	-43	-62	-2054	
Asset register movements for other investment	-143	114	-12	-25	-42	-178	
31/03/2013	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Profile movements	*-637*	*1512*	*3349*	*-12165*	*-32616*	*39283*	
Impact of forecast deterioration to 31/3/2015		*-1357*	*1022*	*-163*	*-651*	*1149*	
31/3/2015 (forecast before further investment)	**61459**	**5429**	**4371**	**4813**	**5095**	**41751**	
31/03/2013	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
31/03/2014	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**61459**	**6786**	**3349**	**4976**	**5746**	**40602**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

APPENDIX 4.2 - SPD

HV OHL Support - Poles

HV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	187941	36773	24400	97484	26251	3033	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	187941	28769	26692	73314	51028	8138	Agreed Network Outputs
Assumed impact of deterioration	0	-8004	2292	-24170	24777	5105	
31/03/2015 profile (with intervention)	187263	35765	26549	68951	50141	5857	Agreed Network Outputs
DPCR5 Intervention plan	-678	6996	-143	-4363	-887	-2281	
Mid Term Review Forecast							
31/03/2012 profile	185876	33733	23785	93770	33676	912	2011/12 Closing profile
Impact of material changes due to data cleansing		-139	-117	-445	-147	0	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		2828	-416	-1502	-814	-1	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		5186	0	-3789	-1361	-36	intervention driven by investment plan
DPCR5 Intervention (Overall)		*8014*	*-416*	*-5291*	*-2175*	*-37*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*-6132*	*2216*	*-18212*	*22128*	*0*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	185876	*32787*	*26001*	*71769*	*54443*	*876*	
Variance to forecast intervention plan	**1387**	**2978**	**548**	**-2818**	**-4302**	**4981**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	188241	*22244*	49742	62782	30383	23090	2013/14 Closing profile
Impact of material changes due to data cleansing		33594	23668	93325	33529	912	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		5666	-612	-1733	-1212	-2191	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*5666*	*-612*	*-1733*	*-1212*	*-2191*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	188241	*22244*	*49742*	*62782*	*30383*	*23090*	
Variance to forecast intervention plan	**-978**	**13521**	**-23193**	**6169**	**19758**	**-17233**	

Annual Position

HV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**187941**	**36773**	**24400**	**97484**	**26251**	**3033**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		-2319	113	7251	-6016	72	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**187042**	**34454**	**24513**	**104735**	**20235**	**3105**	
Profile movements	*899*	*2319*	*-113*	*-7251*	*6016*	*-72*	
31/03/2010	**187042**	**34454**	**24513**	**104735**	**20235**	**3105**	
Impact on volumes of data cleansing (before Material Changes)	-803	-117	-117	-431	-138	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-413	-3410	-195	-9018	14402	-2192	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	0	858	-146	-538	-173	-1	
Asset register movements for other investment	106	278	-30	-109	-33	0	
31/03/2011	**185932**	**32063**	**24025**	**94639**	**34293**	**912**	
Profile movements	*-1110*	*-2391*	*-488*	*-10096*	*14058*	*-2193*	
Impact of forecast deterioration to 31/3/2015		-8433	3759	-25640	30278	36	
31/3/2015 (forecast before further investment)	**185932**	**23630**	**27784**	**68999**	**64571**	**948**	
31/03/2011	**185932**	**32063**	**24025**	**94639**	**34293**	**912**	
Impact on volumes of data cleansing (before Material Changes)	-45	-22	0	-14	-9	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	249	1179	-116	-503	-311	0	
Asset register movements for other investment	-260	513	-124	-352	-297	0	
31/03/2012	**185876**	**33733**	**23785**	**93770**	**33676**	**912**	
Profile movements	*-56*	*1670*	*-240*	*-869*	*-617*	*0*	
Impact of forecast deterioration to 31/3/2015		-6132	2216	-18212	22128	0	
31/3/2015 (forecast before further investment)	**185876**	**27601**	**26001**	**75558**	**55804**	**912**	
Asset register movements for Asset Replacement	0	5186	0	-3789	-1361	-36	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**185876**	**32787**	**26001**	**71769**	**54443**	**876**	
31/03/2012	**185876**	**33733**	**23785**	**93770**	**33676**	**912**	
Impact on volumes of data cleansing (before Material Changes)	2542	480	319	1279	470	-6	
Impact of deterioration (before Material Changes)		-3373	2184	-3499	1321	3367	
Variance due to Material Changes	0	-11434	23650	-28537	-4686	21007	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-402	2313	-119	-176	-309	-2111	
Asset register movements for other investment	225	525	-77	-55	-89	-79	
31/03/2013	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Profile movements	*2365*	*-11489*	*25957*	*-30988*	*-3293*	*22178*	
Impact of forecast deterioration to 31/3/2015		*-4449*	*-525*	*-1304*	*202*	*6076*	
31/3/2015 (forecast before further investment)	**188241**	**17795**	**49217**	**61478**	**30585**	**29166**	
31/03/2013	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
31/03/2014	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**188241**	**22244**	**49742**	**62782**	**30383**	**23090**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

APPENDIX 4.3 - SPD

EHV OHL Support - Poles

EHV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	36184	9348	4835	6172	10332	5497	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	36184	7474	5899	4858	11562	6391	Agreed Network Outputs
Assumed impact of deterioration	0	-1874	1064	-1314	1230	894	
31/03/2015 profile (with intervention)	36029	10622	5899	4012	10193	5303	Agreed Network Outputs
DPCR5 Intervention plan	-155	3148	0	-846	-1369	-1088	
Mid Term Review Forecast							
31/03/2012 profile	35776	9374	5805	9460	11080	57	2011/12 Closing profile
Impact of material changes due to data cleansing		-20	-10	-170	0	0	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		891	-11	-691	-17	0	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		2686	0	-1234	-1445	-7	intervention driven by investment plan
DPCR5 Intervention (Overall)		*3577*	*-11*	*-1925*	*-1462*	*-7*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*-1441*	*911*	*-1018*	*-2115*	*3663*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	35776	*10619*	*6716*	*7208*	*7520*	*3713*	
Variance to forecast intervention plan	**253**	**3**	**-817**	**-3196**	**2673**	**1590**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	38477	6000	10623	14390	5221	2243	2013/14 Closing profile
Impact of material changes due to data cleansing		9354	5795	9290	11080	57	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		1158	-16	-726	-88	-176	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*1158*	*-16*	*-726*	*-88*	*-176*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	38477	*6000*	*10623*	*14390*	*5221*	*2243*	
Variance to forecast intervention plan	**-2448**	**4622**	**-4724**	**-10378**	**4972**	**3060**	

Annual Position

EHV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**36184**	**9348**	**4835**	**6172**	**10332**	**5497**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		-27	34	140	-113	35	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**36253**	**9321**	**4869**	**6312**	**10219**	**5532**	
Profile movements	*-69*	*27*	*-34*	*-140*	*113*	*-35*	
31/03/2010	**36253**	**9321**	**4869**	**6312**	**10219**	**5532**	
Impact on volumes of data cleansing (before Material Changes)	-194	-20	-10	-164	0	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-449	-818	957	4009	878	-5475	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	0	101	-6	-95	0	0	
Asset register movements for other investment	3	13	-1	-9	0	0	
31/03/2011	**35613**	**8597**	**5809**	**10053**	**11097**	**57**	
Profile movements	*-640*	*-724*	*940*	*3741*	*878*	*-5475*	
Impact of forecast deterioration to 31/3/2015		*-1840*	*1045*	*-1286*	*2078*	*3*	
31/3/2015 (forecast before further investment)	**35613**	**6757**	**6854**	**8767**	**13175**	**60**	
31/03/2011	**35613**	**8597**	**5809**	**10053**	**11097**	**57**	
Impact on volumes of data cleansing (before Material Changes)	-6	0	0	-6	0	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	-29	478	-4	-503	0	0	
Asset register movements for other investment	198	299	0	-84	-17	0	
31/03/2012	**35776**	**9374**	**5805**	**9460**	**11080**	**57**	
Profile movements	*163*	*777*	*-4*	*-593*	*-17*	*0*	
Impact of forecast deterioration to 31/3/2015		-1441	911	-1018	-2115	3663	
31/3/2015 (forecast before further investment)	**35776**	**7933**	**6716**	**8442**	**8965**	**3720**	
Asset register movements for Asset Replacement	0	2686	0	-1234	-1445	-7	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**35776**	**10619**	**6716**	**7208**	**7520**	**3713**	
31/03/2012	**35776**	**9374**	**5805**	**9460**	**11080**	**57**	
Impact on volumes of data cleansing (before Material Changes)	2721	716	443	722	836	4	
Impact of deterioration (before Material Changes)		-937	647	-183	-635	1108	
Variance due to Material Changes	0	-3420	3733	4426	-5989	1250	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-85	173	-4	-29	-51	-174	
Asset register movements for other investment	65	94	-1	-6	-20	-2	
31/03/2013	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Profile movements	*2701*	*-3374*	*4818*	*4930*	*-5859*	*2186*	
Impact of forecast deterioration to 31/3/2015		*-1200*	*138*	*-377*	*395*	*1044*	
31/3/2015 (forecast before further investment)	**38477**	**4800**	**10761**	**14013**	**5616**	**3287**	
31/03/2013	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
31/03/2014	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**38477**	**6000**	**10623**	**14390**	**5221**	**2243**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

APPENDIX 4.4 - SPM LV OHL Support

LV OHL Support	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	125002	51036	16992	53495	1864	1615	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	125002	18444	49584	39647	13341	3986	Agreed Network Outputs
Assumed impact of deterioration	0	-32592	32592	-13848	11477	2371	
31/03/2015 profile (with intervention)	117448	32595	47459	23531	13064	799	Agreed Network Outputs
DPCR5 Intervention plan	-7554	14151	-2125	-16116	-277	-3187	
Mid Term Review Forecast							
31/03/2012 profile	125598	43304	24833	51059	3157	3245	2011/12 Closing profile
Impact of material changes due to data cleansing		414	-20	-376	-188	65	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		6930	-700	-4676	-1374	-3	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		6456	0	-5737	-355	-364	intervention driven by investment plan
DPCR5 Intervention (Overall)		*13386*	*-700*	*-10413*	*-1729*	*-367*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*-23436*	*23422*	*-9556*	*9570*	*0*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	125598	*26324*	*48255*	*35766*	*12372*	*2881*	
Variance to forecast intervention plan	**-8150**	**6271**	**-796**	**-12235**	**692**	**-2082**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	127771	19802	10554	13079	12523	71813	2013/14 Closing profile
Impact of material changes due to data cleansing		43718	24813	50683	2969	3310	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		10440	-788	-4774	-1567	-3933	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*10440*	*-788*	*-4774*	*-1567*	*-3933*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	127771	*19802*	*10554*	*13079*	*12523*	*71813*	
Variance to forecast intervention plan	**-10323**	**12793**	**36905**	**10452**	**541**	**-71014**	

Annual Position

LV OHL Support	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**125002**	**51036**	**16992**	**53495**	**1864**	**1615**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		746	-4618	6448	-838	-274	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**126466**	**51782**	**12374**	**59943**	**1026**	**1341**	
Profile movements	*-1464*	*-746*	*4618*	*-6448*	*838*	*274*	
31/03/2010	**126466**	**51782**	**12374**	**59943**	**1026**	**1341**	
Impact on volumes of data cleansing (before Material Changes)	-127	3	-15	-92	-23	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-940	-15822	13179	-3832	3693	1842	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	-11	2438	-280	-1753	-414	-2	
Asset register movements for other investment	161	669	-58	-363	-86	-1	
31/03/2011	**125549**	**39070**	**25200**	**53903**	**4196**	**3180**	
Profile movements	*-917*	*-12712*	*12826*	*-6040*	*3170*	*1839*	
Impact of forecast deterioration to 31/3/2015		*-26579*	*26015*	*-14279*	*14811*	*32*	
31/3/2015 (forecast before further investment)	**125549**	**12491**	**51215**	**39624**	**19007**	**3212**	
31/03/2011	**125549**	**39070**	**25200**	**53903**	**4196**	**3180**	
Impact on volumes of data cleansing (before Material Changes)	22	411	-5	-284	-165	65	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	717	2956	-207	-1477	-555	0	
Asset register movements for other investment	-690	867	-155	-1083	-319	0	
31/03/2012	**125598**	**43304**	**24833**	**51059**	**3157**	**3245**	
Profile movements	*49*	*4234*	*-367*	*-2844*	*-1039*	*65*	
Impact of forecast deterioration to 31/3/2015		*-23436*	*23422*	*-9556*	*9570*	*0*	
31/3/2015 (forecast before further investment)	**125598**	**19868**	**48255**	**41503**	**12727**	**3245**	
Asset register movements for Asset Replacement	0	6456	0	-5737	-355	-364	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**125598**	**26324**	**48255**	**35766**	**12372**	**2881**	
31/03/2012	**125598**	**43304**	**24833**	**51059**	**3157**	**3245**	
Impact on volumes of data cleansing (before Material Changes)	2972	1242	575	1197	65	-107	
Impact of deterioration (before Material Changes)		-4330	3089	-1311	2237	315	
Variance due to Material Changes	0	-23924	-17855	-37768	7257	72290	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-574	3309	-37	-76	-146	-3624	
Asset register movements for other investment	-225	201	-51	-22	-47	-306	
31/03/2013	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Profile movements	*2173*	*-23502*	*-14279*	*-37980*	*9366*	*68568*	
Impact of forecast deterioration to 31/3/2015		*-3960*	*2905*	*-253*	*-1197*	*2505*	
31/3/2015 (forecast before further investment)	**127771**	**15842**	**13459**	**12826**	**11326**	**74318**	
31/03/2013	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
31/03/2014	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**127771**	**19802**	**10554**	**13079**	**12523**	**71813**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

APPENDIX 4.5 - SPM

HV OHL Support - Poles

HV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	167014	12563	21817	118266	11281	3087	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	167014	10263	19517	111366	20628	5240	Agreed Network Outputs
Assumed impact of deterioration	0	-2300	-2300	-6900	9347	2153	
31/03/2015 profile (with intervention)	166407	19112	19049	105083	20128	3035	Agreed Network Outputs
DPCR5 Intervention plan	-607	8849	-468	-6283	-500	-2205	
Mid Term Review Forecast							
31/03/2012 profile	166276	13607	20262	116513	13973	1921	2011/12 Closing profile
Impact of material changes due to data cleansing		-36	-30	-156	-23	0	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		2239	-215	-1825	-347	-2	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		4102	0	-3610	-433	-59	intervention driven by investment plan
DPCR5 Intervention (Overall)		*6341*	*-215*	*-5435*	*-780*	*-61*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*-2235*	*-1146*	*-5046*	*8427*	*0*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	166276	*15474*	*19116*	*107857*	*21967*	*1862*	
Variance to forecast intervention plan	**131**	**3638**	**-67**	**-2774**	**-1839**	**1173**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	165814	20086	24892	78766	25926	16144	2013/14 Closing profile
Impact of material changes due to data cleansing		13571	20232	116357	13950	1921	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		5102	-298	-2103	-550	-2424	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*5102*	*-298*	*-2103*	*-550*	*-2424*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	165814	*20086*	*24892*	*78766*	*25926*	*16144*	
Variance to forecast intervention plan	**593**	**-974**	**-5843**	**26317**	**-5798**	**-13109**	

Annual Position

HV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**167014**	**12563**	**21817**	**118266**	**11281**	**3087**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		-1184	2300	815	-1804	34	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**167175**	**11379**	**24117**	**119081**	**9477**	**3121**	
Profile movements	*-161*	*1184*	*-2300*	*-815*	*1804*	*-34*	
31/03/2010	**167175**	**11379**	**24117**	**119081**	**9477**	**3121**	
Impact on volumes of data cleansing (before Material Changes)	-196	-26	-16	-142	-12	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-504	25	-3610	-587	4866	-1198	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	0	482	-45	-402	-35	0	
Asset register movements for other investment	104	314	-20	-176	-14	0	
31/03/2011	**166579**	**12174**	**20426**	**117774**	**14282**	**1923**	
Profile movements	*-596*	*795*	*-3691*	*-1307*	*4805*	*-1198*	
Impact of forecast deterioration to 31/3/2015		-2837	-2296	-11384	16430	87	
31/3/2015 (forecast before further investment)	**166579**	**9337**	**18130**	**106390**	**30712**	**2010**	
31/03/2011	**166579**	**12174**	**20426**	**117774**	**14282**	**1923**	
Impact on volumes of data cleansing (before Material Changes)	-49	-10	-14	-14	-11	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	84	1083	-84	-719	-194	-2	
Asset register movements for other investment	-338	360	-66	-528	-104	0	
31/03/2012	**166276**	**13607**	**20262**	**116513**	**13973**	**1921**	
Profile movements	*-303*	*1433*	*-164*	*-1261*	*-309*	*-2*	
Impact of forecast deterioration to 31/3/2015		-2235	-1146	-5046	8427	0	
31/3/2015 (forecast before further investment)	**166276**	**11372**	**19116**	**111467**	**22400**	**1921**	
Asset register movements for Asset Replacement	0	4102	0	-3610	-433	-59	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**166276**	**15474**	**19116**	**107857**	**21967**	**1862**	
31/03/2012	**166276**	**13607**	**20262**	**116513**	**13973**	**1921**	
Impact on volumes of data cleansing (before Material Changes)	-339	43	-35	-227	-29	-91	
Impact of deterioration (before Material Changes)		-1361	348	-4812	4428	1397	
Variance due to Material Changes	0	4934	4400	-32430	7757	15339	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-165	2437	-29	-182	-81	-2310	
Asset register movements for other investment	42	426	-54	-96	-122	-112	
31/03/2013	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Profile movements	*-462*	*6479*	*4630*	*-37747*	*11953*	*14223*	
Impact of forecast deterioration to 31/3/2015		*-4017*	*1528*	*-5387*	*2691*	*5185*	
31/3/2015 (forecast before further investment)	**165814**	**16069**	**26420**	**73379**	**28617**	**21329**	
31/03/2013	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
31/03/2014	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**165814**	**20086**	**24892**	**78766**	**25926**	**16144**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

APPENDIX 4.6 - SPM

EHV OHL Support - Poles

EHV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
Forecasts made in 2009							
31/03/2010 profile (with DPCR4 investment)	21408	4385	1603	12752	524	2144	Agreed Network Outputs
31/03/2015 profile (with no DPCR5 investment)	21408	3783	1669	11130	2134	2692	Agreed Network Outputs
Assumed impact of deterioration	0	-602	66	-1622	1610	548	
31/03/2015 profile (with intervention)	21318	5600	1669	9907	2069	2073	Agreed Network Outputs
DPCR5 Intervention plan	-90	1817	0	-1223	-65	-619	
Mid Term Review Forecast							
31/03/2012 profile	21243	4041	2876	13498	631	197	2011/12 Closing profile
Impact of material changes due to data cleansing		-20	0	-26	0	0	data cleansing in 2010/11 and 2011/12
DPCR5 Intervention (Actual)		90	-19	-39	-77	0	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Forecast 2012/13 - 2014/15)		770	0	0	-349	-421	intervention driven by investment plan
DPCR5 Intervention (Overall)		*860*	*-19*	*-39*	*-426*	*-421*	actual 2010/11 and 2011/12 + forecast 2012/13. 13/14. 14/15
Forecast deterioration		*-429*	*37*	*-1616*	*1784*	*224*	deterioration view as at 2012
Predicted 31/03/2015 Profile (with investment)	21243	*4382*	*2913*	*11882*	*2066*	*0*	
Variance to forecast intervention plan	**75**	**1218**	**-1244**	**-1975**	**3**	**2073**	difference between Agreed Network Output and latest forecast
Performance Assessment Forecast							
31/03/2014 profile	20497	2048	6623	8070	2141	1615	2013/14 Closing profile
Impact of material changes due to data cleansing		4021	2876	13472	631	197	data cleansing in 2010/11, 2011/12, 2012/13. 2013/14
DPCR5 Intervention (Actual)		177	-39	-55	-78	-157	refurbishment, asset register movements for asset repl + other in 2010/11 to 2013/14
DPCR5 Intervention (Predicted)		0	0	0	0	0	
DPCR5 Intervention (Overall)		*177*	*-39*	*-55*	*-78*	*-157*	
Forecast deterioration		0	0	0	0	0	
Predicted 31/03/2015 Profile (with investment)	20497	*2048*	*6623*	*8070*	*2141*	*1615*	
Variance to forecast intervention plan	**821**	**3552**	**-4954**	**1837**	**-72**	**458**	

Annual Position

EHV OHL Support - Poles	Number of assets	HEALTH INDEX					Comments
		HI 1	HI 2	HI 3	HI 4	HI 5	
31/3/2010 (forecast)	**21408**	**4385**	**1603**	**12752**	**524**	**2144**	Agreed Network Outputs
Impact on volumes of data cleansing (before Material Changes)		-220	577	-529	119	63	
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2010 (actual)	**21418**	**4165**	**2180**	**12223**	**643**	**2207**	
Profile movements	*-10*	*220*	*-577*	*529*	*-119*	*-63*	
31/03/2010	**21418**	**4165**	**2180**	**12223**	**643**	**2207**	
Impact on volumes of data cleansing (before Material Changes)	-35	-15	0	-20	0	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	-84	-194	715	1340	65	-2010	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	0	13	0	-13	0	0	
Asset register movements for other investment	0	7	0	-7	0	0	
31/03/2011	**21299**	**3976**	**2895**	**13523**	**708**	**197**	
Profile movements	*-119*	*-189*	*715*	*1300*	*65*	*-2010*	
Impact of forecast deterioration to 31/3/2015		*-561*	*-34*	*-2391*	*2977*	*9*	
31/3/2015 (forecast before further investment)	**21299**	**3415**	**2861**	**11132**	**3685**	**206**	
31/03/2011	**21299**	**3976**	**2895**	**13523**	**708**	**197**	
Impact on volumes of data cleansing (before Material Changes)	-11	-5	0	-6	0	0	
Impact of deterioration (before Material Changes)		0	0	0	0	0	
Variance due to Material Changes	0	0	0	0	0	0	
Health Index movements due to Refurbishment activity	0						
Asset register movements for Asset Replacement	33	51	-2	-15	-1	0	
Asset register movements for other investment	-78	19	-17	-4	-76	0	
31/03/2012	**21243**	**4041**	**2876**	**13498**	**631**	**197**	
Profile movements	*-56*	*65*	*-19*	*-25*	*-77*	*0*	
Impact of forecast deterioration to 31/3/2015		-429	37	-1616	1784	*224*	
31/3/2015 (forecast before further investment)	**21243**	**3612**	**2913**	**11882**	**2415**	**421**	
Asset register movements for Asset Replacement	0	770	0	0	-349	-421	
Asset register movements for other investment	0						
31/3/2015 (forecast after further investment)	**21243**	**4382**	**2913**	**11882**	**2066**	**0**	
31/03/2012	**21243**	**4041**	**2876**	**13498**	**631**	**197**	
Impact on volumes of data cleansing (before Material Changes)	-639	-113	-86	-416	-18	-6	
Impact of deterioration (before Material Changes)		-404	260	-531	612	63	
Variance due to Material Changes	0	-1563	3593	-4465	917	1518	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement	-113	61	-13	-9	-1	-151	
Asset register movements for other investment	6	26	-7	-7	0	-6	
31/03/2013	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Profile movements	*-746*	*-1993*	*3747*	*-5428*	*1510*	*1418*	
Impact of forecast deterioration to 31/3/2015		*-409*	*-253*	*-145*	*379*	*428*	
31/3/2015 (forecast before further investment)	**20497**	**1639**	**6370**	**7925**	**2520**	**2043**	
31/03/2013	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2014	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	
Impact of forecast deterioration to 31/3/2015							
31/3/2015 (forecast before further investment)	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/3/2015 (forecast after further investment)	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
31/03/2014	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Impact on volumes of data cleansing (before Material Changes)							
Impact of deterioration (before Material Changes)							
Variance due to Material Changes							
Health Index movements due to Refurbishment activity							
Asset register movements for Asset Replacement							
Asset register movements for other investment							
31/03/2015	**20497**	**2048**	**6623**	**8070**	**2141**	**1615**	
Profile movements	*0*	*0*	*0*	*0*	*0*	*0*	

Appendix 5.1 RRP Data Review - Poles - SPD

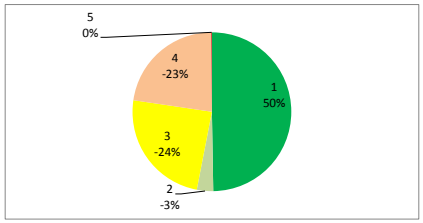
Asset Replacement Poles

No restatement of 2010/11 & 2011/12. Profile 2012/13 based on all sources of information (contractor CBA's etc)

RRP Submission 2010/11 *

	HI 1	2	3	4	5	% Ouputs
LV	1088	-73	-531	-493	-3	**0.75%**
HV	858	-146	-538	-173	-1	**0.51%**
EHV	101	-6	-95	0	0	**0.09%**
						1.35%

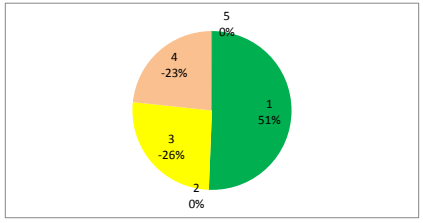
* Data Set from SAP
* Based on Old HI Methodology



RRP Submission 2011/12

	HI 1	2	3	4	5	% Ouputs
LV	1053	0	-542	-485	0	**0.73%**
HV	1179	-116	-503	-311	0	**0.65%**
EHV	478	-4	-503	0	0	**0.45%**
						1.84%

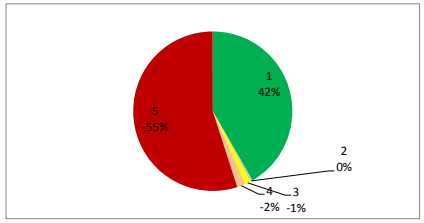
* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology



New Profile Apr 2012 -> Mar 2013

	HI 1	2	3	4	5	% Ouputs
LV	1559	-18	-43	-62	-2054	**3.13%**
HV	2313	-119	-176	-309	-2111	**4.21%**
EHV	173	-4	-29	-51	-174	**0.66%**
						8.00%

* Based on New HI Methodology
* Contains missing disposals



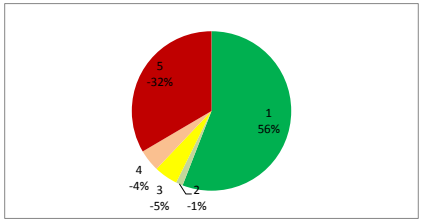
D5 TOTAL
11.19%

3. Full 3 year re-statement using all sources of information (contractor CBA's etc)

New Profile 2010/11

	HI 1	2	3	4	5	% Ouputs
LV	1109	-28	-95	-88	-664	**1.11%**
HV	948	-57	-186	-22	-333	**0.71%**
EHV	112	-2	-54	0	-20	**0.11%**
						1.93%

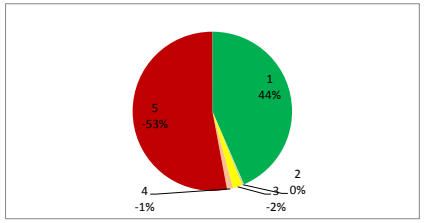
* Based on Old HI Methodology



New Profile 2011/12

	HI 1	2	3	4	5	% Ouputs
LV	1150	-10	-51	-32	-1400	**2.13%**
HV	1197	-70	-271	-99	-668	**1.45%**
EHV	484	-4	-423	0	-90	**0.65%**
						4.23%

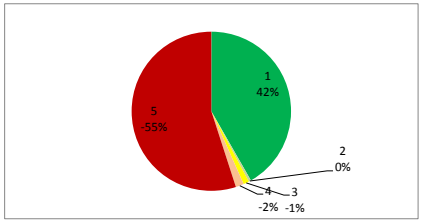
* Based on Old HI Methodology



New Profile Apr 2012 -> Mar 2013

	HI 1	2	3	4	5	% Ouputs
LV	1559	-18	-43	-62	-2054	**3.13%**
HV	2313	-119	-176	-309	-2111	**4.21%**
EHV	173	-4	-29	-51	-174	**0.66%**
						8.00%

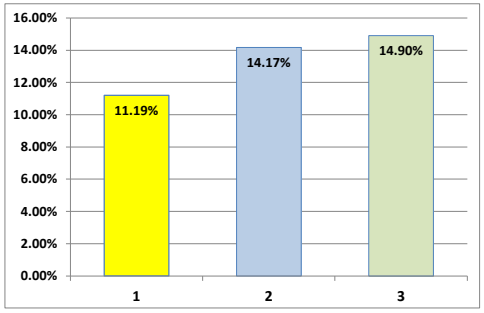
* Based on New HI Methodology
* Contains missing disposals



D5 TOTAL
14.17%

** This could potentially rise to 14.90% if we apply same logic as we did in 2010/11 submission. This would mean increasing the number of disposals to match the additions

Summary



Option 1 -3 shows % of SPD ouputs for HI
Option 4 is Option 3 with the adjustment to 2010/11 figures (matching additions numbers with disposals)

Target indicated to OFGEM in Jan 2013 was 12.9%

Appendix 5.2 RRP Data Review - Poles - SPM

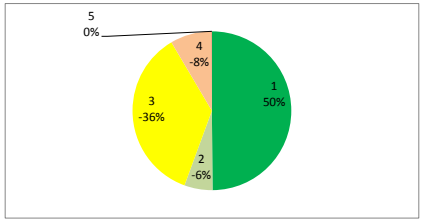
Asset Replacement Poles

No restatement of 2010/11 & 2011/12. Profile 2012/13 based on all sources of information (contractor CBA's etc)

RRP Submission 2010/11 *

	HI 1	2	3	4	5	% Ouputs
LV	2438	-280	-1753	-414	-2	**0.59%**
HV	482	-45	-402	-35	0	**0.12%**
EHV	13	0	-13	0	0	**0.01%**
						0.72%

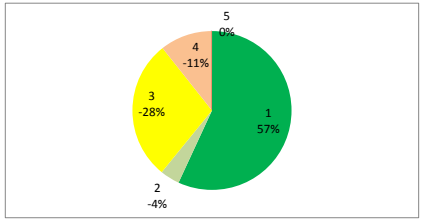
* Data Set from SAP
* Based on Old HI Methodology



RRP Submission 2011/12

	HI 1	2	3	4	5	% Ouputs
LV	2956	-207	-1477	-555	0	**0.59%**
HV	1083	-84	-719	-194	-2	**0.30%**
EHV	51	-2	-15	-1	0	**0.01%**
						0.90%

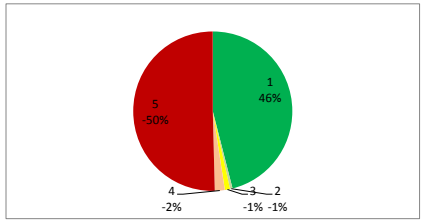
* Data Set from ESRI but error on HI5 info
* Based on Old HI Methodology



New Profile Apr 2012 -> Mar 2013

	HI 1	2	3	4	5	% Ouputs
LV	3309	-37	-76	-146	-3624	**2.68%**
HV	2437	-29	-182	-81	-2310	**2.06%**
EHV	61	-13	-9	-1	-151	**0.23%**
						4.97%

* Based on New HI Methodology
* Contains missing disposals



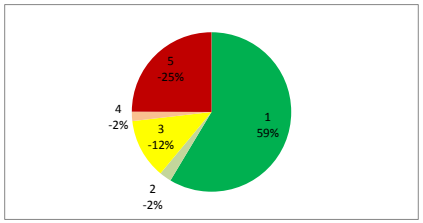
D5 TOTAL
6.60%

Full 3 year re-statement using all sources of information (contractor CBA's etc)

New Profile 2010/11

	HI 1	2	3	4	5	% Ouputs
LV	2690	-112	-557	-87	-1145	**0.98%**
HV	569	-8	-115	-2	-237	**0.23%**
EHV	22	0	-5	0	-12	**0.02%**
						1.23%

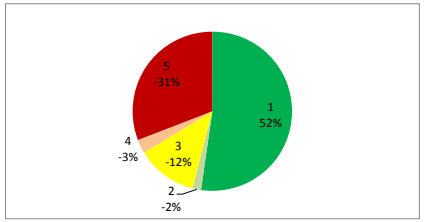
* Based on Old HI Methodology



New Profile 2011/12

	HI 1	2	3	4	5	% Ouputs
LV	3232	-108	-761	-172	-1909	**1.61%**
HV	1368	-52	-250	-43	-1206	**1.12%**
EHV	53	-1	-2	0	-18	**0.03%**
						2.76%

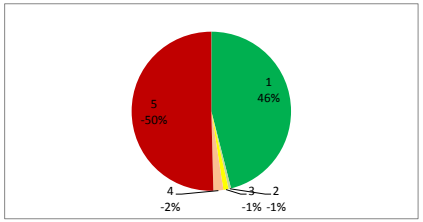
* Based on Old HI Methodology



New Profile Apr 2012 -> Mar 2013

	HI 1	2	3	4	5	% Ouputs
LV	3309	-37	-76	-146	-3624	**2.68%**
HV	2437	-29	-182	-81	-2310	**2.06%**
EHV	61	-13	-9	-1	-151	**0.23%**
						4.97%

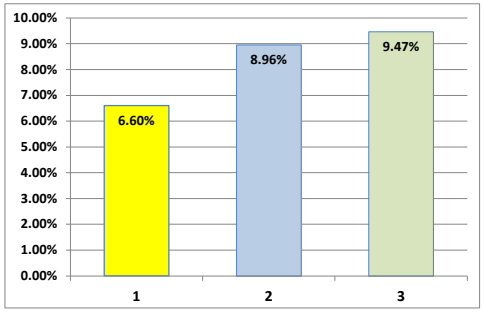
* Based on New HI Methodology
* Contains missing disposals



D5 TOTAL
8.96%

** This could potentially rise to 9.47% if we apply same logic as we did in 2010/11 submission. This would mean increasing the number of disposals to match the additions

Summary



Option 1-2 shows % of SPM ouputs for HI
Option 3 is Option 2 with the adjustment to 2010/11 figures (matching additions numbers with disposals)

Target indicated to OFGEM in Jan 2013 was 5.9%