Common Network Asset Indices Methodology (CNAIM)

Network Assets Workbook Rebasing

Contents

1. Introduction

1.1 Background

For RIIO-ED1, which runs from 1 April 2015 to 31 March 2023, Ofgem has introduced regulatory reporting requirements for GB DNOs to report information relating to both asset health and criticality. This information is known as the Network Asset Indices, and these provide an indication of the risk of condition based failure of network assets.

The requirement for reporting of Network Asset Indices is outlined in Standard Licence Condition 51. This licence condition also requires DNOs to jointly develop a Common Network Asset Indices Methodology (herein referred to as "the Methodology"), such that DNOs adopt a common approach to the reporting of indices that measure Asset Health and Criticality. This is now the case, and the Methodology has been adopted into usage.

Pursuant to Special Condition CRC 5D.16, the Network Assets Workbook (NAW) forms part of License Condition 51. The Network Assets Workbook illustrates the 8 year RIIO-ED1 plan with respect to the Health and Criticality indexes, and must be revised from time to time in accordance with Special Condition CRC 5C: Rebasing and Modification of the Network Assets Workbook. Furthermore, the Network Asset Workbooks are required to be trued up to take into account actual data up to and including 31 March 2015, and including the methodology of the production of this data set, all to be submitted for approval to the Authority.

The NAW contains the Secondary Deliverables (Annex D), which will have its own commentary document, as part of UK Power Networks' Health Index Submission for 30 December 2016:

- The 2015/16 Secondary Deliverable reporting pack(s) x 3 (for EPN, LPN and SPN);
- The 2015/16 Secondary Deliverables supporting commentary;
- The (NAW) rebasing of RIIO-ED1 submission based on the Methodology x 3 (for EPN, LPN and SPN); and
- The NAW supporting commentary.

1.2 Definition of terms

Acronym	Description
ARP	Asset Risk Prioritisation
BI	Business Intelligence Database
CI	Criticality Index
CNAIM	Common Network Asset Indices Methodology
CoF	Consequence of Failure
CORMON	Corrosion Monitoring Survey
CRC	Charge Restriction Condition
DNO	Distribution Network Operator
DP	Degree of Polymerisation
DPCR5	Distribution Price Control Review for five years from 1 April 2010 to 31 March 2015
EHV	Extra High Voltage
EPN	Eastern Power Networks plc
ESQCR	Electricity, Safety, Quality and Continuity Regulations 2002
FFA	Furfuraldehyde
GB	Great Britain
GM	Ground Mounted
HI	Health Index
HV	High Voltage
HVP	High Value Project
kV	Kilovolt
kVA	Kilovolt Ampere
LI	Load Index
LIDAR	Laser Imaging, Detections and Ranging
LPN	London Power Networks plc
LV	Low Voltage
LV UGB	Low Voltage Underground Board (Link Box)
MPAN	Meter Point Administration Number
NASD	Network Assets Secondary Deliverables
NAW	Network Assets Workbook
Ofgem	Office of Gas and Electricity Markets
PoF	Probability of Failure
RIG	Regulatory Instructions and Guidance
RIIO	Ofgem's price control framework first implemented in 2013
RIIO-ED1	First price control for Electricity Distribution companies under the RIIO framework
SDI	Secondary Deliverable Intervention
SF_6	Sulphur Hexafluoride
SPN	South Eastern Power Networks plc
TDC	Transmission Design Circular
UG	Underground
UKPN	UK Power Networks

2. Scope

2.1. Rebased Network Assets Workbook (NAW)

This document details the process and the methodology used by UK Power Networks to produce the rebased Network Asset Workbooks for the LPN, SPN and EPN licence areas. An explanation of the data used to populate the CNAIM models in order to produce the NAW profiles is given, along with an assessment against Ofgem's "Equally Challenging" criteria.

The Rebased Network Assets Workbooks must:

- be consistent with the Common Network Asset Indices Methodology;
- remain equally as challenging as those set out in the Network Assets Workbook that was applicable at 1 April 2015, as calculated using the values for Average Probability of Asset Failure and Average Consequence of Asset Failure applied at that time adjusted for any modification to RIGs or Common Network Asset Indices Methodology that results in activities falling newly into scope or ceasing to be within scope of asset replacement or refurbishment activities; and
- be based on actual rather than forecast data up to and including 31 March 2015.

A single rebased NAW has been submitted per DNO group and worksheets 'NAW2 – Total', 'NAW3 – Asset Repl', 'NAW4 – Refurbishment', 'NAW7 – HVP', 'NAW8 – Average CoF' and 'Probs. Of Failure' have been populated, in accordance with the RIGs, with:

- Network Asset Indices profiles for:
  - 'End of DPCR5 (31 March 2015) with investment';
  - 'Mid-Period Review (31 March 2019) without investment'; and
  - 'End of RIIO-ED1 (31 March 2023) without investment'.
- Network Asset Indices movements for 'Mid-Period Review (31 March 2019) planned investment' and 'End of RIIO-ED1 (31 March 2023) planned investment' for:
  - Asset Replacement;
  - Refurbishment; and
  - High Value Projects that are Asset Replacement or Refurbishment driven.
- Average Consequences of Failure for each Health Index Asset Category; and
- Probabilities of Failure for each boundary between Health Index bands, for each Health Index Asset Category.

There is no requirement to populate the Network Asset Indices profiles for 'End of DPCR5 (31 March 2015) without investment' on 'NAW2'.

The Network Asset Indices movements for 'Mid-Period Review (31 March 2019) planned investment' and 'End of RIIO-ED1 (31 March 2023) planned investment' on worksheets 'NAW5 – Reinforcement', 'NAW6 – Faults' and 'NAW7b – HVP' (Reinforcement and Other Drivers). Additionally, worksheet 'NAW1 – DPCR5 View' should be populated with blanks.

Within in the NAW, the internal tabs have the following meaning:

NAW2 – Total

This tab provides the full view of the RIIO-ED1 investment plan, including all investment drivers.

NAW3 – Asset Replacement

The Asset Replacement activity is to remove a condition based existing asset and install a new asset.

NAW4 – Refurbishment

The Asset Refurbishment is a one off activity on an asset deemed to be close to end of serviceable life that extends the life or restores its functionality, improving its Health Index.

NAW7 – High Value Project

The High Value Projects driver are assets associated with Asset Replacement or Refurbishment projects defined in the RIIO-ED1 settlement with allowed expenditure of £25 million or more.

3. Process

The CNAIM Models have been developed by EA Technology in accordance with the CNAIM Document "DNO Common Network Asset Indices Methodology v1". The document has undergone public consultation and its use has subsequently been directed by Ofgem for the purposes of Health and Criticality Reporting. User Acceptance Testing has been carried out collaboratively by the DNOs to ensure that the CNAIM Model functions as per the specification in the CNAIM Document v1.

The key outputs of the Methodology are Health and Criticality Indices for all assets in reportable Asset Categories. DNOs are required to use the Methodology to populate the Health and Criticality tables in the NAW for the "ED1 Start Position (End of DPCR5 with investment)", "Mid-Period Review without investment" and "End of RIIO-ED1 without investment".

Movements predicted in the Health and Criticality profiles of these tables as a result of Planned Investments in the network, for which the DNOs are funded via their regulatory settlements, are captured within the NAW in the "Mid-Period Review planned investment" and "End of RIIO-ED1 planned investment" tables. The net position is calculated within the NAW to give the "Mid-Period Review with investment" and "End of RIIO-ED1 with investment" profiles.

For the purpose of the NAW Rebasing, only investments which contribute to a DNO's Secondary Deliverables Target are considered; i.e. Asset Replacement, Refurbishment and High Value Projects (Asset Replacement or Refurbishment driven).

A summary of the process for calculating the above can be seen in Figure 1.

For the HI calculation, the CNAIM Models have been populated with data from a snapshot of the UKPN Asset Register from the Start of ED1. As GB DNOs each collect and store condition data to meet their own process needs, a 1:1 relationship between this data and the CNAIM Condition Inputs does not exist. As such, UKPN's Condition and Defects data has been mapped from the Asset Register using bespoke mapping rules. These mapping rules have been developed in conjunction with UKPN Asset Engineers, captured in Data Item Specifications (Appendix B), and have undergone a process of UAT.

For the CI calculation, the CNAIM Models have been populated using the latest available data.

Further details on the data mapping can be found in Section 4 "Dataset Establishment".

The CNAIM Models have been run twice for each Asset Category, with the Future Year set to 4 and 8. The model outputs have then been used to populate the NAW ED1 Start, Mid-Period without Investment and End of RIIO-ED1 without Investment tables.

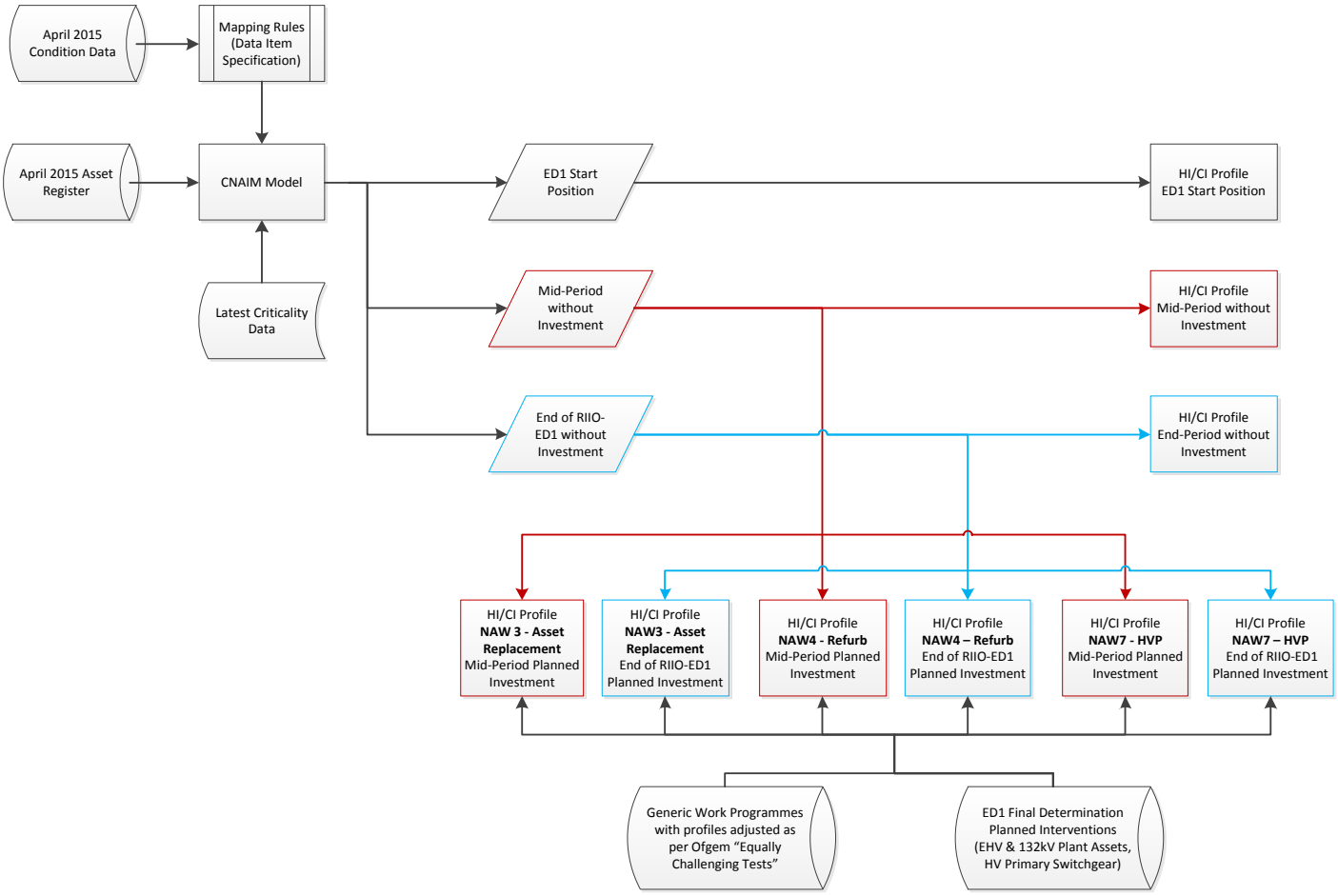

Figure 1: Process Overview

When overlaying the planned interventions, two approaches have been used:

1) Named Schemes – These are the Low Volume, High Cost Asset Categories with projects which are supported by the Regional Development Plans and/or Gate Papers which supported our March 2014 RIIO-ED1 Business Plan Submission. The assets in these Asset Replacement and Refurbishment projects have been used to derived the investment profiles captured in NAW3, NAW4 and NAW7. Some assets in the original plan were subject to intervention before the start of ED1 and are therefore not included in the rebased plan. We have adhered to original plan so far as reasonable, however substitute assets have been specified by UKPN Asset Engineers where the new CNAIM Model yields a result which no longer justifies intervention on a particular asset; and

2) Generic Work Programmes – These are High Volume, Low Cost Asset Categories where provisions are made in the Asset Management Plan and the actual assets which are targeted are specified on an annual basis. As the original plan was not linked to specific assets, the investment profiles used in the rebased NAW3 and NAW4 have been derived to be as "Equally Challenging" as the original plan, as defined by the Ofgem tests specified in "NASD Rebasing Methodology, 2 December 2016".

4. Data Set Establishment

4.1. Commissioned Asset Population

In order to establish the list of commissioned assets at the start of ED1, UKPN have referenced the data cut used to populate the 2015 Age Profile (Table V5, now AP1). This ensures alignment to the RIGs volumes reported that year for all non-linear Asset Categories.

For linear Asset Categories, this ensures that the commissioned assets themselves are considered in the model calculation, however volumes will not align to the previous RIGs submission as UKPN have carried out a data improvement exercise on asset length (no. of units) as per the Information Gathering Plan submitted in August 2016.

4.2. Age Data

The age of each asset has been calculated by comparison of the ED1 Start Date to the Commissioning Date held within the Age Profile tables, which are fed from the Asset Register. The exception to this is HV and EHV Switchgear that has been subjected to a historic retrofit. In this case, the year of manufacture of the switchgear housing has been used to calculate the age.

4.3. Duty Data

Duty data is required for the following Asset Categories:

- **Cables**: EHV UG Cable (Oil); EHV UG Cable (Gas); 132kV UG Cable (Oil); 132kV UG Cables (Gas);
- **Switchgear**: HV Switchgear (GM) – Primary; EHV Switchgear (GM); 132kV CBs; and
- **Transformers**: HV Transformer (GM); EHV Transformer; 132kV Transformer.

For Cables, there are two components to the Duty Factor calculation: *Max % Utilisation under normal operating conditions* and *Operating Voltage ÷ Design Voltage*. *Max % Utilisation under normal operating conditions* has been calculated for Gas Cables using the substation load (taken from the LI tables, which are fed from the Planning Load Estimates), the Number of Circuits and the Circuit Rating. *Operating Voltage ÷ Design Voltage* has been calculated from the asset attributes provided by the Asset Engineer. For Oil Cables, the Duty Factor is Defaulted to 1 as there is currently no association between the Asset Register and the Circuit Rating Database.

For Switchgear, the Duty Factor is based on the *Number of Operations*. Here the Function of the switchgear, as held in the Asset Register, has been used as a proxy for how often it operates, with Auto-reclosers being assigned a higher factor value than other switchgear.

For Transformers, the *Max % Utilisation under normal operating conditions* has been calculated using the substation load (taken from the LI tables, which are fed from the Planning Load Estimates). In addition, for EHV and 132kV Transformers the *Average Number of Daily Taps* of the Tapchanger is required. This is calculated from the historic Tapchanger inspection records held in the Asset Register. Where this yields an unreasonable result (>100), then the average is calculated from the last two records only.

4.4. Location Data

All location data inputs have been calculated using the Grid Reference data held in the Asset Register, with reference to external data sources. The data required by the CNAIM Models are:

- Distance from coast;
- Altitude;
- Corrosion Category
- Environment (indoor/outdoor); and
- Proximity to watercourse (oil filled assets only).

The Environment (indoor/outdoor) has been taken directly from the Asset Register. All other location data has been calculated from the Grid Reference (held in the Asset Register) using FME (Feature Manipulation Engine) software with reference to external Ordnance Survey and Galvanizers Association data sets.

4.5. Health Score Modifier Data

The Health Score Modifier is calculated within the CNAIM Models using the CNAIM Condition Inputs. The CNAIM Condition Inputs are populated using Condition and Defects Data collected during Inspections and Maintenance, which are held within the Asset Register. A snapshot of the UKPN Asset Register from the Start of ED1 is held within the UKPN's BI and has been mapped across to the CNAIM Models using internally developed rules. These mapping rules are captured for each model in a Data Item Specification (Appendix B).

4.6. Reliability Modifier

A Reliability Modifier has been applied to assets that UKPN believe have a materially different PoF than would be expected for a typical asset within the same Asset Category. The table below summarises where UKPN has applied a Reliability Modifier in our CNAIM implementation:

Table 1: Reliability Modifier Summary

HI Asset Category	Model Category	Methodology
LV UGB	Link Boxes	• Material • No. of Ways
HV Switchgear (GM) - Primary	Switchgear	• Make & Type (EGI)
HV Switchgear (GM) - Distribution		
EHV Switchgear		
132kV CBs		
HV Transformer (GM)	HV Transformers	• Oil Breakdown Strength
EHV UG Cable (Oil)	Oil Filled Cables	• No. of Joints per km • Type
132kV UG Cable (Oil)		
EHV UG Cable (Gas)	Gas Filled Cables	• History of dangerous catastrophic failures
132kV UG Cable (Gas)		
LV OHL Support	Poles	• Wood Pole Preservative
HV OHL Support - Poles		
EHV OHL Support - Poles		

Further details can be found in the document “Reliability Modifier as applied by UK Power Networks in the implementation of the Common Network Asset Indices Methodology for LPN, SPN and EPN”.

4.7. Financial CoF Data

A *Type Financial Factor* and an *Access Financial Factor* are used in the calculation of Financial CoF in order to take account of assets where the cost of unplanned replacement varies from that expected for a typical asset within the same Asset Category.

The data for the *Type Financial Factor* is related to either the material, rating or function (type) of the asset. This data is all sourced from the latest asset attribute data held within the Asset Register.

The data for the *Access Financial Factor* is derived from the assets Confined Space Classification for Switchgear and Transformers, and the ESQCR Span Location Risk for Overhead Lines (Supports, Fittings and Conductor). Again, the latest data held within the Asset Register has been used.

4.8. Safety CoF Data

Type and Location Safety Factor data is populated directly from the latest ESQCR data held within the Asset Register.

4.9. Environmental CoF Data

The Environmental CoF calculation considers the Type, Size and Location of an asset.

The *Type Environmental Factor* applies to Switchgear only and considers whether the asset contains oil or SF_6 as either the interruption or insulation medium. This data is held as an asset attribute in the Asset Register. The latest available data has been used.

The *Size Environmental Factor* applies to Transformers only and considers the amount of oil present in the Transformer based on its size. The input data for this is identical to that required for the *Financial Type Factor* above and has been sourced from the latest data available in the Asset Register.

The *Location Environmental Factor* applies to Oil Filled Cables, Switchgear and Transformers and considers the equipment’s *Proximity to a Watercourse* and whether or not the plant is *Bunded*. The Proximity to Watercourse is calculated as described in Location Data above, with the exception of Oil Filled Cable Sections where the Location Risk is taken from the ESQCR data stored in the Asset Register. Whether or not a Bund is present is derived from the Parent Site of the asset within the Asset Register.

4.10. Network Performance CoF Data

For EHV and 132kV assets, the Network Performance CoF is calculated using the *Maximum Demand* of the substation associated with the asset under consideration. Maximum Demand Data has been mapped to the CNAIM Assets from the LI submission tables (which are fed from the Planning Load Estimates).

For LV and HV assets, the Network Performance CoF is calculated using the *Number of Connected Customers* and two discretionary factors (*kVA Band per Customer* and *Customer Sensitivity Factor*).

The *Number of Connected Customers* has been taken from UK Power Networks Connectivity Model (fed from a count of MPANs held within our Network Control System, PowerOn), mapped to each assets using an association by Substation Number. For LV Assets downstream from a substation (LV Poles and LVUGBs) the number of customers associated with the substation has been divided by the number of outgoing feeder ways to give a reasonable approximation.

Discretionary Factor *kVA Band per Customer* has been used in the HV Switchgear (GM) – Primary model implementation only. This has been calculated using an annual extract of Maximum Feeder Demand Data from our PI database, with any data greater than the 90th percentile neglected in order to filter out abnormal running conditions. The result then divided by the Number of Connected Customers to assign each asset to a CNAIM band. No other discretionary factors have been applied in the implementation of other models.

4.11. No. of Units Data

The No. of Units is set to 1 for each record for non-linear Asset Categories as UKPN hold a single Equipment ID for each asset.

For non-linear Asset Categories (Cables and Tower Line Conductor), UKPN have undertaken a length data improvement exercise, the results of which are now stored in the Asset Register.

For Oil Filled Cables, lengths need to be those associated with the Hydraulic Cable Section, rather than the circuit as a whole, as this is what the Leakage information (the main driver of the HI) is captured against. An exercise has been carried out which compared the existing lengths in the Ellipse Asset Register (by Hydraulic Section) to those in Netmap (by Route) to plug any gaps. In addition, legacy route records have been examined to ensure the accuracy of the results.

For Tower Line Conductor, UKPN have invested in a LIDAR (Laser Imaging, Detections and Ranging) survey, which has vastly improved the accuracy of the length data held against each conductor span.

5. Intervention Methodology

UKPN have developed an Interventions Model in conjunction with EA Technology to complement the CNAIM Model. This Interventions Model takes the CNAIM Model Results as an input and holds rulesets to adjust the relevant model data to take account of the interventions which are presented to it. This is particularly useful for SDI Refurbishment Interventions, as Appendix C of the Methodology dictates high level rules which must be applied to calculate the post-refurbishment HI. In addition, the Interventions model is used to predict the deterioration of the post-intervention assets to give a more accurate view of the year 4 and 8 risk profiles than could be derived from the CNAIM Model alone.

Depending upon the nature of the Asset Category, two approaches have been used when populating NAW3 and NAW4:

1) Named Schemes – These are the Low Volume, High Cost Asset Categories with projects which are supported by the Regional Development Plans and/or Gate Papers which supported our March 2014 RIIO-ED1 Business Plan Submission. The assets in these Asset Replacement and Refurbishment projects have been used to derived the investment profiles captured in NAW3, NAW4 and NAW7. Some assets in the original plan were subject to intervention before the start of ED1 and are therefore not included in the rebased plan. We have adhered to original plan so far as reasonable, however substitute assets have been specified by UKPN Asset Engineers where the new CNAIM Model yields a result which no longer justifies intervention on a particular asset; and

2) Generic Work Programmes – These are High Volume, Low Cost Asset Categories where provisions are made in the Asset Management Plan and the actual assets which are targeted are specified on an annual basis. As the original plan was not linked to specific assets, the investment profiles used in the rebased NAW3 and NAW4 have been derived to be as “Equally Challenging” as the original plan, as defined by the Ofgem tests specified in “NASD Rebasing Methodology, 2 December 2016”.

Table 2 shows which approach has been applied to each Asset Category when populating NAW3 and NAW4.

When populating NAW7 the assets that need to be intervened on are identified in the Asset Management Plan. These projects usually have a combination of several drivers (Reinforcement, Asset Health, AONB, etc.) and are ring-fenced in the ED1 Final Determination. Therefore, we have re-stated the original plan (asset for asset) even if this causes a failure of one or more of the Ofgem “Equally Challenging” tests.

The following considerations have been made in developing the asset lifecycle strategy:

- Assets are provided on the basis of lowest whole-life cost, acceptable performance and functionality; account being taken of energy efficiency;
- Due consideration is given to the environmental impact of all decisions and actions;
- Residual lives of existing assets are determined on functional and economic basis;
- Expenditure on individual assets is co-ordinated to minimise ownership costs;
- System security levels are maintained;
- Where justified, performance levels are improved (contributing to reducing minutes lost and/or interruptions per connected customer);
- Assurance of public and operator safety;
- Statutory requirements are met; and
- Adoption of world-wide best practices.

Based on CNAIM model outputs, this allows the forecast of which assets will be high risk without intervention, and therefore requires intervention either through refurbishment or replacement, to move an asset to a less risky position (HI1 in the case of replacement). This benefits customers because UKPN is moving towards rigorous end-of-life management of very old and ageing assets.

Table 2: Intervention Methodology

Asset Category	Intervention Methodology (NAW3 & NAW4)
LV Network	
CM3 LV Switchgear and Other	Generic Work Programme
CM2 LV UGB	Generic Work Programme
CM1 LV OHL Support	Generic Work Programme
HV Network	
CM5 HV Switchgear (GM) - Primary	Generic Work Programme
CM6 HV Distribution Switchgear	Generic Work Programme
CM7 HV Distribution Transformers	Generic Work Programme
HV UG Cable	N/A
CM4 HV OHL Support - Poles	Generic Work Programme
EHV Network	
CM16 EHV Switchgear (GM)	Named Schemes
CM17 EHV Transformers	Named Schemes
CM12 EHV UG Cable (Gas)	Named Schemes
CM14 EHV UG Cable (Oil)	Named Schemes
CM13 EHV UG Cable (Non Pressurised)	N/A
CM11 EHV OHL Support - Towers	Named Schemes
CM8 EHV OHL Support - Poles	Generic Work Programme
CM9 EHV OHL Fittings	Named Schemes
CM10 EHV OHL Conductor (Tower Lines)	Named Schemes
132kV Network	
CM24 132kV Circuit Breakers	Named Schemes
CM25 132kV Transformers	Named Schemes
CM21 132kV UG Cable (Gas)	Named Schemes
CM23 132kV UG Cable (Oil)	Named Schemes
CM22 132kV UG Cable (Non Pressurised)	N/A
CM20 132kV OHL Support - Tower	Named Schemes
CM18 132kV OHL Fittings	Named Schemes
CM19 132kV OHL Conductor (Tower Lines)	Named Schemes
Other	
CM15 Submarine Cables	N/A

6. Equally Challenging Testing

As part of the requirement for the rebasing of the NAW, it is essential that each DNO performs a series of tests on the output from the above process to establish if the CNAIM creates an equally challenging output on the DNOs when compared to its original RIIO-ED1 submission. Ofgem shall undertake an initial analysis considering the restated matrices for each intervention type for each Health Index Asset Category separately. If any of these tests are failed, for a particular Health Index Asset Category, then a qualitative assessment should be undertaken relating to the failed categories only. To facilitate this requirement, Ofgem has provided a published document, "NASD Rebasing Methodology", following a series of meetings involving all DNOs as part of the Reliability Working Group.

Once the data is run through the Methodology models, there will be a validation which will use the Equally challenging test methodology.

The document is available on the Ofgem website via the following link:

https://www.ofgem.gov.uk/publications-and-updates/reliability-working-group

The three tests are:

Test 1 – Statistical test of "equally as challenging" - Risk Delta as a percentage of the Maximum Risk Points;

Test 2 – Volumes of Interventions; and

Test 3 – Consequential intervention test - Percentage of HI2 (& HI3s for Old Methodology).

For any required qualitative assessment, the DNO will be required to prove the submitted rebased interventions are equally as challenging as those in the original Network Assets Workbook.

Where following qualitative assessment, Ofgem concludes that the rebased information for a particular Health Index Asset Category is not demonstrated as being equally challenging, then Ofgem shall direct modifications to the Network Assets Workbook.

It should be noted that if Tests 1, 2 and 3 are all passed, for a particular Health Index Asset Category, then no qualitative assessment would be required for that category.

7. Summary of Tests

Table 3.1: Ofgem criteria test summary – Asset Replacement (EPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
EPN	CM3 LV Switchgear and Other	Pass	Pass	Pass	
EPN	CM2 LV UGB	Pass	Pass	Pass	
EPN	CM1 LV OHL Support	Pass	Pass	Pass	
	HV Network				
EPN	CM5 HV Switchgear (GM) - Primary	Pass	Pass	Pass	
EPN	CM6 HV Distribution Switchgear	Pass	Pass	Fail	Appendix A.3
EPN	CM7 HV Distribution Transformers	Pass	Pass	Pass	
EPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
EPN	CM4 HV OHL Support - Poles	Pass	Pass	Pass	
	EHV Network				
EPN	CM16 EHV Switchgear (GM)	Pass	Pass	Pass	
EPN	CM17 EHV Transformers	Pass	Pass	Pass	
EPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM14 EHV UG Cable (Oil)	Pass	Pass	Pass	
EPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
EPN	CM8 EHV OHL Support - Poles	Pass	Pass	Pass	
EPN	CM9 EHV OHL Fittings[1]	N/A	N/A	N/A	
EPN	CM10 EHV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	132kV Network				
EPN	CM24 132kV Circuit Breakers	Pass	Pass	Pass	Appendix A.4
EPN	CM25 132kV Transformers	Pass	Pass	Pass	
EPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM23 132kV UG Cable (Oil)	Pass	Pass	Pass	
EPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM20 132kV OHL Support - Tower	Pass	Pass	Pass	
EPN	CM18 132kV OHL Fittings[1]	N/A	N/A	N/A	
EPN	CM19 132kV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	Other				
EPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

[1] Conductor and Fittings were a single Asset Category in the original NAW template. As Conductor volumes are reported in kilometres and Fittings volumes in sets it was not possible to combine these into a single table. The volumes in the original NAW therefore represented Conductor only. The NAW template has been updated for the rebasing exercise so that these are now two separate Asset Categories. The Fittings volumes for the rebased NAW align with those submitted in the ED1 Final Determination BPDT Table CV3.

Table 3.2: Ofgem criteria test summary – Asset Refurbishment (EPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
EPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
EPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
EPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
EPN	CM5 HV Switchgear (GM) - Primary	Fail	Pass	Pass	Appendix A.2
EPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
EPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
EPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
EPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
	EHV Network				
EPN	CM16 EHV Switchgear (GM)	N/A	N/A	N/A	No Planned Work
EPN	CM17 EHV Transformers	Pass	Pass	Pass	
EPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
EPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
EPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
EPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
EPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
EPN	CM24 132kV Circuit Breakers	N/A	N/A	N/A	No Planned Work
EPN	CM25 132kV Transformers	Pass	Pass	Pass	
EPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
EPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
EPN	CM18 132kV OHL Fittings	N/A	N/A	N/A	No Planned Work
EPN	CM19 132kV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	Other				
EPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

Table 3.3: Ofgem criteria test summary – High Value Projects (EPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
EPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
EPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
EPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
EPN	CM5 HV Switchgear (GM) - Primary	N/A	N/A	N/A	No Planned Work
EPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
EPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
EPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
EPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
	EHV Network				
EPN	CM16 EHV Switchgear (GM)	N/A	N/A	N/A	No Planned Work
EPN	CM17 EHV Transformers	N/A	N/A	N/A	No Planned Work
EPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
EPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
EPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
EPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
EPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
EPN	CM24 132kV Circuit Breakers	Fail	Pass	Fail	Appendix A.4
EPN	CM25 132kV Transformers	N/A	N/A	N/A	No Planned Work
EPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Asset Population
EPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
EPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
EPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
EPN	CM18 132kV OHL Fitting	N/A	N/A	N/A	No Planned Work
EPN	CM19 132kV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	Other				
EPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

Table 4.1: Ofgem criteria test summary – Asset Replacement (LPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
LPN	CM3 LV Switchgear and Other	Pass	Pass	Fail	Appendix A.1
LPN	CM2 LV UGB	Pass	Pass	Pass	
LPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
LPN	CM5 HV Switchgear (GM) - Primary	Pass	Pass	Pass	
LPN	CM6 HV Distribution Switchgear	Pass	Pass	Fail	Appendix A.3
LPN	CM7 HV Distribution Transformers	Pass	Pass	Pass	
LPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
LPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
	EHV Network				
LPN	CM16 EHV Switchgear (GM)	Pass	Pass	Pass	
LPN	CM17 EHV Transformers	Pass	Pass	Pass	
LPN	CM12 EHV UG Cable (Gas)	Pass	Pass	Pass	
LPN	CM14 EHV UG Cable (Oil)	Pass	Pass	Pass	
LPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
LPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
LPN	CM9 EHV OHL Fittings[1]	N/A	N/A	N/A	
LPN	CM10 EHV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	132kV Network				
LPN	CM24 132kV Circuit Breakers	Pass	Pass	Pass	
LPN	CM25 132kV Transformers	Pass	Pass	Pass	
LPN	CM21 132kV UG Cable (Gas)	Pass	Pass	Pass	
LPN	CM23 132kV UG Cable (Oil)	Pass	Pass	Pass	
LPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
LPN	CM18 132kV OHL Fittings[1]	N/A	N/A	N/A	
LPN	CM19 132kV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	Other				
LPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

[1] Conductor and Fittings were a single Asset Category in the original NAW template. As Conductor volumes are reported in kilometres and Fittings volumes in sets it was not possible to combine these into a single table. The volumes in the original NAW therefore represented Conductor only. The NAW template has been updated for the rebasing exercise so that these are now two separate Asset Categories. The Fittings volumes for the rebased NAW align with those submitted in the ED1 Final Determination BPDT Table CV3.

Table 4.2: Ofgem criteria test summary – Asset Refurbishment (LPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
LPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
LPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
LPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
LPN	CM5 HV Switchgear (GM) - Primary	Fail	Pass	Pass	Appendix A.2
LPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
LPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
LPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
LPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
	EHV Network				
LPN	CM16 EHV Switchgear (GM)	N/A	N/A	N/A	No Planned Work
LPN	CM17 EHV Transformers	Pass	Pass	Pass	
LPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
LPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
LPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
LPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
LPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
LPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
LPN	CM24 132kV Circuit Breakers	Pass	Pass	Pass	
LPN	CM25 132kV Transformers	Pass	Pass	Pass	
LPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
LPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
LPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
LPN	CM18 132kV OHL Fittings	N/A	N/A	N/A	No Planned Work
LPN	CM19 132kV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	Other				
LPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

Table 4.3: Ofgem criteria test summary – High Value Projects (LPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
LPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
LPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
LPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
LPN	CM5 HV Switchgear (GM) - Primary	N/A	N/A	N/A	No Planned Work
LPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
LPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
LPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
LPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
	EHV Network				
LPN	CM16 EHV Switchgear (GM)	N/A	N/A	N/A	No Planned Work
LPN	CM17 EHV Transformers	N/A	N/A	N/A	No Planned Work
LPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
LPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
LPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
LPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Asset Population
LPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
LPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
LPN	CM24 132kV Circuit Breakers	N/A	N/A	N/A	No Planned Work
LPN	CM25 132kV Transformers	N/A	N/A	N/A	No Planned Work
LPN	CM21 132kV UG Cable (Gas)	Pass	Pass	Pass	
LPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
LPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
LPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
LPN	CM18 132kV OHL Fittings	N/A	N/A	N/A	No Planned Work
LPN	CM19 132kV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	Other				
LPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

Table 5.1: Ofgem criteria test summary – Asset Replacement (SPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
SPN	CM3 LV Switchgear and Other	Pass	Pass	Pass	
SPN	CM2 LV UGB	Pass	Pass	Pass	
SPN	CM1 LV OHL Support	Pass	Pass	Pass	
	HV Network				
SPN	CM5 HV Switchgear (GM) - Primary	Pass	Pass	Pass	
SPN	CM6 HV Distribution Switchgear	Pass	Pass	Fail	Appendix A.3
SPN	CM7 HV Distribution Transformers	Pass	Pass	Pass	
SPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
SPN	CM4 HV OHL Support - Poles	Pass	Pass	Pass	
	EHV Network				
SPN	CM16 EHV Switchgear (GM)	Pass	Pass	Pass	
SPN	CM17 EHV Transformers	Pass	Pass	Pass	
SPN	CM12 EHV UG Cable (Gas)	Pass	Pass	Pass	
SPN	CM14 EHV UG Cable (Oil)	Pass	Pass	Pass	
SPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
SPN	CM8 EHV OHL Support - Poles	Pass	Pass	Pass	
SPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
SPN	CM10 EHV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	132kV Network				
SPN	CM24 132kV Circuit Breakers	Pass	Pass	Pass	
SPN	CM25 132kV Transformers	Pass	Pass	Pass	
SPN	CM21 132kV UG Cable (Gas)	Pass	Pass	Pass	
SPN	CM23 132kV UG Cable (Oil)	Pass	Pass	Pass	
SPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM20 132kV OHL Support - Tower	Pass	Pass	Pass	
SPN	CM18 132kV OHL Fittings[1]	N/A	N/A	N/A	
SPN	CM19 132kV OHL Conductor (Tower Lines)	Pass	Pass	Pass	
	Other				
SPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

[1] Conductor and Fittings were a single Asset Category in the original NAW template. As Conductor volumes are reported in kilometres and Fittings volumes in sets it was not possible to combine these into a single table. The volumes in the original NAW therefore represented Conductor only. The NAW template has been updated for the rebasing exercise so that these are now two separate Asset Categories. The Fittings volumes for the rebased NAW align with those submitted in the ED1 Final Determination BPDT Table CV3.

Table 5.2: Ofgem criteria test summary – Asset Refurbishment (SPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
SPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
SPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
SPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
SPN	CM5 HV Switchgear (GM) - Primary	Fail	Pass	Pass	Appendix A.2
SPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
SPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
SPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
SPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
	EHV Network				
SPN	CM16 EHV Switchgear (GM)	Pass	Pass	Pass	
SPN	CM17 EHV Transformers	Pass	Pass	Pass	
SPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
SPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
SPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
SPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
SPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
SPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
SPN	CM24 132kV Circuit Breakers	N/A	N/A	N/A	No Planned Work
SPN	CM25 132kV Transformers	Pass	Pass	Pass	
SPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
SPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
SPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM20 132kV OHL Support - Tower	N/A	N/A	N/A	No Planned Work
SPN	CM18 132kV OHL Fittings	N/A	N/A	N/A	No Planned Work
SPN	CM19 132kV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	Other				
SPN	CM15 Submarine Cables	N/A	N/A	N/A	No Asset Population

Table 5.3: Ofgem criteria test summary – High Value Projects (SPN)

Licence Area	CNAIM model number and asset category	Test 1	Test 2	Test 3	Evidence
		Pass / Fail	Pass / Fail	Pass / Fail	
	LV Network				
SPN	CM3 LV Switchgear and Other	N/A	N/A	N/A	No Planned Work
SPN	CM2 LV UGB	N/A	N/A	N/A	No Planned Work
SPN	CM1 LV OHL Support	N/A	N/A	N/A	No Planned Work
	HV Network				
SPN	CM5 HV Switchgear (GM) - Primary	N/A	N/A	N/A	No Planned Work
SPN	CM6 HV Distribution Switchgear	N/A	N/A	N/A	No Planned Work
SPN	CM7 HV Distribution Transformers	N/A	N/A	N/A	No Planned Work
SPN	HV UG Cable	N/A	N/A	N/A	Not Reported in ED1
SPN	CM4 HV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
	EHV Network				
SPN	CM16 EHV Switchgear (GM)	N/A	N/A	N/A	No Planned Work
SPN	CM17 EHV Transformers	N/A	N/A	N/A	No Planned Work
SPN	CM12 EHV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
SPN	CM14 EHV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
SPN	CM13 EHV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM11 EHV OHL Support - Towers	N/A	N/A	N/A	No Planned Work
SPN	CM8 EHV OHL Support - Poles	N/A	N/A	N/A	No Planned Work
SPN	CM9 EHV OHL Fittings	N/A	N/A	N/A	No Planned Work
SPN	CM10 EHV OHL Conductor (Tower Lines)	N/A	N/A	N/A	No Planned Work
	132kV Network				
SPN	CM24 132kV Circuit Breakers	N/A	N/A	N/A	No Planned Work
SPN	CM25 132kV Transformers	N/A	N/A	N/A	No Planned Work
SPN	CM21 132kV UG Cable (Gas)	N/A	N/A	N/A	No Planned Work
SPN	CM23 132kV UG Cable (Oil)	N/A	N/A	N/A	No Planned Work
SPN	CM22 132kV UG Cable (Non Pressurised)	N/A	N/A	N/A	Not Reported in ED1
SPN	CM20 132kV OHL Support - Tower	Fail	Pass	Fail	Appendix A.5
SPN	CM18 132kV OHL Fittings[1]	N/A	N/A	N/A	
SPN	CM19 132kV OHL Conductor (Tower Lines)	Fail	Pass	Pass	Appendix A.6
	Other				
SPN	CM15 Submarine Cables	N/A	N/A	N/A	No Assets

[1] Conductor and Fittings were a single Asset Category in the original NAW template. As Conductor volumes are reported in kilometres and Fittings volumes in sets it was not possible to combine these into a single table. The volumes in the original NAW therefore represented Conductor only. The NAW template has been updated for the rebasing exercise so that these are now two separate Asset Categories. The Fittings volumes for the rebased NAW align with those submitted in the ED1 Final Determination BPDT Table CV3.

Appendix A Equally Challenging Reports

The data provided in this Appendix serves as a qualitative assessment in order to demonstrate that any failed tests presented in Section 7 are not a result of the rebased NAW being less challenging than the original version.

A.1. LV Switchgear and Other

There is a Test 3 Failure in LPN Asset Replacement for this Asset Category. This is due to the new CNAIM Models yielding less HI3, HI4 and HI5 results than our previous model, leading to the need to replace some HI1 & HI2 assets (26%). Under the previous methodology 21% of our replacement programme was HI3 assets, so the test has been failed by 5%

As we will be replacing 100% of our HI3, HI4 and HI5 assets it is not possible to invest more aggressively in order to pass Test 3. Therefore, the revised target is not deemed less challenging than that in the original NAW.

A.2. HV Switchgear (GM) – Primary

There are Test 1 failures for Refurbishment in EPN, LPN and SPN for this Asset Category.

After considering Asset Replacement (for which UKPN has passed all Ofgem tests), there are insufficient volumes of high risk assets remaining to pass the Refurbishment test.

The Ofgem rebasing methodology states the following:

3.10. For refurbishment interventions where Test 1 is failed for a particular Asset Health Index Category, Ofgem shall re-run the test, from Step 1 above, but first removing the replacement interventions for that category from the 'End of DPCR5 (31 March 2015) with investment' refurbishment profile. The results of the re-run test shall be subject to a qualitative assessment and be considered alongside the commentary provided in the Rebasing Commentary Pack due to Test 1 being failed.

UKPN pass the sequential test described above.

The reason that there are fewer high risk assets available is because our original ARP model utilised an Expected Life that varied between 25 and 55 years depending on the make and model of switchgear, whilst the new CNAIM model uses a Normal Expected Life of 55 years for all models and 75 years for panels that have been retrofitted.

Some of the previous attempts at retrofitting have been less than successful with partial discharge problems caused by inadequate clearances and mechanical problems sometimes resulting in inoperable racking mechanisms. UKPN plans to retrofit some of these again with improved second generation designs but the expected life of 75 years means that many are now calculated as HI1 or HI2.

As the original intervention volumes have been retained and the most aggressive refurbishment profile available under the new methodology has been used, the revised target is not deemed less challenging than that in the original NAW. The test failures are simply the result of a recalculation using the new methodology, however the drivers for refurbishment remain unchanged.

A.3. HV Switchgear (GM) – Distribution

There are Test 3 failures for Asset Replacement in EPN, LPN and SPN for this Asset Category. This is due to the new CNAIM Models yielding less HI3, HI4 and HI5 results than our previous ARP Models, leading to the need to replace some HI2 assets (15.9% in EPN, 25.9% in LPN, 7.6% in SPN).

As we will be replacing 100% of our HI3, HI4 and HI5 assets it is not possible to invest more aggressively in order to pass Test 3. Previously we were only planning to replace 30% of our HI3, HI4 and HI5s in EPN, 42% in LPN and 55% in SPN. Therefore, the revised target is not deemed less challenging than that in the original NAW.

A.4. 132kV Circuit Breakers

There are Test 1 & 3 failures in EPN HVPs.

The HI ratings calculated by the original ARP model for the original submission utilised an expected life that varied between 35 and 55 years depending on the make and model of switchgear whilst the new CNAIM model uses an expected life of between 50 and 60 years for all models. The drivers for switchgear replacement or refurbishment have not changed and as the original HVP intervention plan has been retained, this results in a larger number of lower HI circuit breakers being targeted.

Reyrolle OBYR are Air-blast circuit breakers installed 50 years or more ago. There are a few known issues associated with these breakers, which drove the decision to intervene on them in the ED1 replacement programme:

- Mechanical linkages rusting (there was a TDC raised in 1968);
- Failure of stack insulators, two recent failures due to combination of wear and tear and the force exerted on stack during operations of the air blast circuit breakers; and
- Air systems degrade over time, leading to the air system needing to overwork, therefore they often need to be replaced earlier than the breaker life, at great cost.

All the issues above were historic known issues and may have not been applicable to each individual breaker. On top of this, these breakers would have been subject to HI improvement from the aforementioned amendment in the expected life figures.

As the original intervention plan has been retained and the HVP test failures are simply the result of a recalculation using the new methodology, the revised target is not deemed less challenging than that in the original NAW.

A.5. 132kV OHL Support – Tower

There are Test 1 and 3 failures in SPN HVPs.

The towers being removed as part of a HVP on the PO route in SPN have a number of drivers. A number of towers on the route were reported as being in poor condition a few years ago and temporary repairs were carried out on them until a more permanent solution was decided. This reduced the HI of some of the towers but it is expected to be temporary. There are also wayleave issues on the route and some landowners want the towers removed. Finally, there are also load drivers for the project and the proposed solution is to build a new grid supply point at Little Horstead meaning that the towers will be replaced with cable.

As the original intervention plan has been retained and the test failures are simply the result of a recalculation using the new methodology, the revised target is not deemed less challenging than that in the original NAW.

A.6. 132kV OHL Conductor (Tower Lines)

There is a Test 1 failure in SPN HVPs.

The conductor being removed as part of a HVP on the PO route in SPN is driven by the factors described in Appendix A.5 above and not by the condition of the conductor itself.

As the original intervention plan has been retained and the test failures are simply the result of a recalculation using the new methodology, the revised target is not deemed less challenging than that in the original NAW.

Appendix B Data Item Specifications for 1 April 2015

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV OHL Support	M1DI 1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT equip_no as AssetID
LV OHL Support	M1DI 2	Voltage		Latest data, per asset	Voltage of line carried by the pole	Extracted from the equipgrpiddesc field	REGdb	APR16.Equip_Dim	equipgrpiddesc	SELECT equipgrpiddesc as Voltage
LV OHL Support	M1DI 3	RouteName		Latest data, per asset	Route Name	Extracted from the RouteName field with any commas replaced with space.	REGdb	APR16.Equip_Dim	RouteName	SELECT REPLACE(ED.RouteName, ',', ' ') as RouteName
LV OHL Support	M1DI 4	Parish		Latest data, per asset	Relates to the location of the asset	Represented by "Parish" in the asset register with any commas replaced with space.	REGdb	APR16.Equip_Dim	Parish	SELECT REPLACE(ED.Parish, ',', ' ') as Parish
LV OHL Support	M1DI 6	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always "LV OHL Support"	N/A	N/A	N/A	SELECT 'LV OHL Support' as HealthIndexAssetCategory
LV OHL Support	M1DI 7	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Always "LV Poles"	N/A	N/A	N/A	SELECT 'LV Poles' as AssetRegisterCategory
LV OHL Support	M1DI 8	DistanceFromCoast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	LVPole_GIS	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
LV OHL Support	M1DI 9	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field.	CFM	LVPole_GIS	ALTITUDE(M)	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
LV OHL Support	M1DI 10	CorrosionCategory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	LVPole_GIS	CorrosionCategoryIndex	SELECT CorrosionCategoryIndex as CorrosionCategory
LV OHL Support	M1DI 11	Indoor_Outdoor	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
LV OHL Support	M1DI 12	MaterialPoles	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Type of material the pole is made of	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeName AND attributeValue	SELECT MaterialPoles = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END
LV OHL Support	M1DI 13	ExpectedLife Subdivision	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Expected life sub-division of the pole	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Fibre Glass" or "Aluminium" then "Other (e.g. fibreglass)", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" or "Steel Tubing - Adastra" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeName AND attributeValue	SELECT ExpectedLifeSubdivision = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Fibre Glass' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Aluminium' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END
LV OHL Support	M1DI 14	Age	Yes,Missing	Latest data, per asset	Age of the pole in years	Based on the installation date of the asset (date from edm first and if missing then commisioning date from ed), if installed later than 2016-04-01 then the age is 0, for any other cases it is equal to the difference in years between the installation date (taken as date from edm first and if missing then commisioning date from ed) and 2016-04-01.	STGDW03ANDREGdb	APR16.Age_Profile_Data_Inst_Date_2015_6 (as edm)ANDAPR16.Equip_Dim (as ed)	inst_dateANDCommDate	SELECT Age = CASE WHEN isnull(inst_date, convert(char(8),ed.CommDate,111)) > '2016-04-01' then 0 ELSE datediff(DD, isnull (inst_date, convert(char(8),ed.CommDate,111)),'2016-04-01')/365.25 END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV OHL Support	M1DI 15	VisualPoleCondition	Operable,Inoperable	Latest data, per asset	Condition of the pole	Based on the material of the pole, latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) and the worst latest condition values (MeasureValue) recorder against MeasureName values in this list: 'LVPOLICON','LVPOLECON','POLEREASN','STEELCON','PAINTCON','DEFECTLPO','POLEROT'. If pole material is "Wood" and LVPOLECON is 4 and the defect fields do not contain "Pole Top Rot" or "Woodpecker Holes" then "Substantial Deterioration", if pole material is "Wood" and LVPOLECON is 3 or 4 then "Some Deterioration", if pole material is "Wood" and LVPOLECON is 1 or 2 then "Acceptable", if pole material is not "Wood" and LVPOLECON or STEELCON is 4 then "Substantial Deterioration", if pole material is not "Wood" and LVPOLECON or STEELCON is 3 then "Some Deterioration", if pole material is not "Wood" and LVPOLECON or STEELCON is less than 3 then "Acceptable". Empty for any other cases.	STGDW04 AND REGdb	[DBO].[NPL_NonCritical_Dim] AND [APR16].[Condition_Dim]	MeasureName AND MeasureValue AND CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT VisualPoleCondition = CASE WHEN MATERIALPOLE = 'Wood' AND LVPOLECON = 4 AND NOT (CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1= 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2= 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes') THEN 'Substantial Deterioration' WHEN pnp.MATERIALPOLE = 'Wood' AND (LVPOLECON IN (3, 4)) THEN 'Some Deterioration' WHEN MATERIALPOLE = 'Wood' AND (LVPOLECON IN (1, 2))THEN 'Acceptable' WHEN MATERIALPOLE <> 'Wood' AND (LVPOLECON = 4 OR STEELCON = 4) THEN 'Substantial Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (LVPOLECON = 3 OR STEELCON = 3) THEN 'Some Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (LVPOLECON < 3 OR STEELCON < 3) THEN 'Acceptable' ELSE '' END
LV OHL Support	M1DI 16	PoleTopRot		Latest data, per asset	Shows if the presence of rot at the top of the pole was observed during examinations/inspections	Based on the latest defects (fields CDIVI1(2, 3), CDEVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole. If "Pole Top Rot" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT PoleTopRot = CASE WHEN CDIVI1 = 'Pole Top Rot' OR CDIVI2 = 'Pole Top Rot' OR CDIVI3 = 'Pole Top Rot' OR CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1 = 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' THEN 'Yes' ELSE 'No'END
LV OHL Support	M1DI 17	PoleLeaning		Latest data, per asset	Shows if during the examinations/inspections the pole was leaning	Derived from the latest worst attributeValue field values corresponding to attributeName equal to "DEFECTLPO". If 4 recorded against DEFECTLPO then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	attributeName AND attributeValue	SELECT PoleLeaning = CASE WHEN DEFECTLPO = '4' THEN 'Yes' ELSE 'No' END
LV OHL Support	M1DI 18	Bird_AnimalDamage		Latest data, per asset	Shows if the presence damage caused by animals was observed during examinations/inspections	Based on the latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole. If "Woodpecker Holes" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	CDEVI1(2 ,3)ANDCDPVI1(2,3)	SELECT Bird_AnimalDamage = CASE WHEN CDIVI1 = 'Woodpecker Holes' OR CDIVI2 = 'Woodpecker Holes' OR CDIVI3 = 'Woodpecker Holes' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2 = 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes' THEN 'Yes' ELSE 'No' END

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV OHL Support	M1DI 19	PoleDecay_Deterioration	Low,Medium,High	Latest data, per asset	Degree of pole decay/deterioration	Based on Pole Type (pt.PoleCategory - see "Pole_Category" sheet), Pole Category (pcat.PoleCategory - see "Pole_Category" sheet) and worst latest pole condition data (attributeValue) recorded against attributeName from this list: "STEELCON", "POLEROT" and "LVPOLICON". PoleDecay_Deterioration is "Very High" when STEELCON is 4 or LVPOLICON is 4 or: POLEROT is less than 70 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 65 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 60 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 75 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 65 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout" or POLEROT is less than 80 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 75 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 70 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "High" when STEELCON is 3 or LVPOLICON is 3 or: POLEROT is less than 85 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 82.5 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 80 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 88 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 82.5 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout" or POLEROT is less than 92 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 88 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 85 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "No Significant Decay/Deterioration" when STEELCON is 2 or LVPOLICON is 2 or: POLEROT is less than 92.5 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 91.25 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 90 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 94.5 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 91.25 for Pole Type "PLANT" and Pole Category "Stout"	REGdb	[APR16].[Condition_Dim]	attributeName AND attributeValue	SELECT PoleDecay_Deterioration = CASE WHEN pt.PoleCategory = 'INTER' AND pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory In ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 60 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 80 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 90 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory IN ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Light' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 80 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 92 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 98 THEN 'No

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
						or "Extra Stout" or POLEROT is less than 98 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 94.5 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 92.5 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "No Significant Decay/Deterioration" for any other cases.				Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Medium' THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory IN ('Stout','Extra Stout') THEN CASE WHEN STEELCON = 4 or LVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or LVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or LVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END ELSE 'No Significant Decay/Deterioration' END
LV OHL Support	M1DI 20	ReliabilityFactorInput	Low,Medium,High	Latest data, per asset	The reliability of the asset	Derived from the values in attributeValue field against records that have "PRESERVATIVE" in the AttributeName field. If attributeValue is "AC500" or "CCA" THEN "1.5". Empty for any other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeName AND attributeValue	SELECT ReliabilityFactorInput = CASE WHEN PRESERVATIVE IN ('AC500' , 'CCA') THEN '1.5' ELSE '' END
LV OHL Support	M1DI 21	ReliabilityCollarInput		Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for tower supports	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
LV OHL Support	M1DI 22	NoOfUnits		Latest data, per asset	Number of poles per record	Always 1 unit	N/A	N/A	N/A	SELECT 1 as NoOfUnits
LV OHL Support	M1DI 23	TypeSafetyRating	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	This addresses the principal characteristics of the equipment and its particular siting.	Based on the latest values of the ESCEquipRisk value: If "1 - LOW" then "Low", if "2 - MEDIUM" then "Medium", if "3 - HIGH" or "4 - V.HIGH" then "High". Empty for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESCEquipRisk	SELECT TypeSafetyRating = case when ESCEquipRisk = '1 - LOW' then 'Low' when ESCEquipRisk = '2 - MEDIUM' then 'Medium' when ESCEquipRisk = '3 - HIGH' then 'High' when ESCEquipRisk = '4 - V.HIGH' then 'High' Else '' End
LV OHL Support	M1DI 25	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the ESQCLocationRisk value: If "1 - LOW" then "Low", if "2 - MEDIUM" then "Medium", if "3 - HIGH" or "4 - V.HIGH" then "High". Empty for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESQCLocationRisk	SELECT LocationSafetyRating = Case when ESQCLocationRisk = '1 - LOW' then 'Low' when ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when ESQCLocationRisk = '3 - HIGH' then 'High' when ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' End
LV OHL Support	M1DI 26	NumberofConnectedCustomers			Number of customers connected to the power line carried by the pole	Based on the [Customer Count] field	CFM	dbo.LVPole_Load	[Customer Count]	SELECT [Customer Count] as NumberofConnectedCustomers
LV OHL Support	M1DI 27	CustomerSensitivityFactor			CustomerSensitivityFactor	UKPN does not currently record this information	N/A	N/A	N/A	SELECT '' as CustomerSensitivityFactor
LV OHL Support	M1DI 28	KVABandPerCustomer			KVABandPerCustomer	UKPN does not currently record this information	N/A	N/A	N/A	SELECT '' as KVABandPerCustomer

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV OHL Support	M1DI29	TypeFinancialRating			Financial Type	Based on the material of the pole and Pole Type (pt.PoleCategory). See sheet "Pole_Category" for the business rules related to Pole Type. TypeFinancialRating is "Small Footprint Steel Masts" when the material of the pole is "Steel". TypeFinancialRating is "Pole (Supporting Plant or Equipment)" when Pole Type is "PLANT" and "Pole (Supporting Conductor only)" when Pole Type is "INTER".	[STGDW04] AND REGdb	[DBO].[NPL_NonCritical_Dim] AND [ARP16].[EQUIP_DIM]	AttributeName AND attributeValue	SELECT TypeFinancialRating = CASE When MATERIALPOLE = 'Steel' then 'Small Footprint Steel Masts' when pt.PoleCategory = 'PLANT' THEN 'Pole (Supporting Plant or Equipment)' WHEN pt.PoleCategory = 'INTER' THEN 'Pole (Supporting Conductor only)' Else '' End
LV OHL Support	M1DI30	AccessFinancialRating			Access Financial Rating	Derived from the ESQCSpanLocationRiskCode field: if contains "LZ" or "LR" or "LW" or "LQ" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access'END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV UGB	M2DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	REGdb	APR16.Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT Equip_No AS AssetID
LV UGB	M2DI2	Type		Latest data, per asset	Asset Type	Extracted from asset nameplate table using attributes "NOWAYS" and "LBOXMATL"	STGDW04	NPL_NonCritical_Dim	AttributeValueANDAttributeName	SELECT LBOXMATL +'-'+ NOWAYS AS [Type]
LV UGB	M2DI3	Location		Latest data, per asset	Asset Location	Extracted from Equip_Dim and concatenate address fields	REGdb AND STGDW04 (GISRef)	APR16.Equip_Dim AND dbo.Location_dim (GISRef)	areano AND GISRef AND SiteName	Select substring(areano+'-'+ GISRef+'-'+ SiteName,1,60) AS Location
LV UGB	M2DI4	PlantNo.		Latest data, per asset	Asset Plant Number	Extracted from Plant Number field	REGdb	APR16.Equip_Dim	PlantNo	Select PlantNo as [Plant No.]
LV UGB	M2DI5	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'LV UGB'	N/A	N/A	N/A	Select 'LV UGB' AS HealthIndexAssetCategory
LV UGB	M2DI6	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Always 'LV UGB'	N/A	N/A	N/A	Select 'LV UGB' AS AssetRegisterCategory
LV UGB	M2DI7	Age		Latest data, per asset	Calculated Age from asset commission date or manufacture date	Based on inst_date. If not valid then age is assumed as 35	REGdb	APR16.Age_Profile_Data_Inst_Date_2015_6, APR16.Equip_Dim	Cal_Year, YearManuf	SELECT Age = CASE WHEN inst_date is null then 35 WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END
LV UGB	M2DI8	SteelCover_PitCondition	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Latest condition of steel cover and pit	Based on CONDITION, if 1 then "As New", if 2 then "Normal Wear", if 3 then "Some Deterioration", if 4 then "Substantial Deterioration", all else set to blank	REGdb	APR16.Condition_Dim	MeasureValue	SELECT SteelCover_PitCondition = Case When CONDITION = 1 then 'As New' When CONDITION = 2 then 'Normal Wear' When CONDITION = 3 then 'Some Deterioration' When CONDITION = 4 then 'Substantial Deterioration' Else '' End
LV UGB	M2DI9	Water_Moisture	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Latest condition of water moisture	Based on DEFECTWOB and DEFECTWIB. If DEFECTWOB = 4 then "Present in Pit", if DEFECTWIB = 4 then "Present in Bell Housing", all else set to "None"	REGdb	APR16.Condition_Dim	MeasureValue	SELECT Water_Moisture = Case when DEFECTWOB = 4 then 'Present in Pit' when DEFECTWIB = 4 then 'Present in Bell Housing' Else 'None' End
LV UGB	M2DI10	BellCondition	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Latest condition of bell	Based on DEFECTWAT, DEFECTBCO and DEFECTSTR. If DEFECTWAT = 4 then "Some Deterioration", if DEFECTBCO = 4 then "Substantial Deterioration", if DEFECTSTR = 4 then "Substantial Deterioration", all else set to "Satisfactory"	REGdb	APR16.Condition_Dim	MeasureValue	SELECT BellCondition = Case When DEFECTWAT = 4 then 'Some Deterioration' ---Signs of Water Ingress when DEFECTBCO = 4 then 'Substantial Deterioration' ---Defect Bell Not Sitting when DEFECTSTR = 4 Then 'Substantial Deterioration' ---Defect Structure Else '' -- 'Satisfactory' End
LV UGB	M2DI11	InsulationCondition	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Latest condtiion of insulation	Based on DEFECTCLV. If DEFECTCLV = 4 then "Major Deterioration", all else set to "No Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue	SELECT InsulationCondition = Case When DEFECTCLV = 4 then 'Major Deterioration' --- Defect Compound level Else 'No Deterioration' End
LV UGB	M2DI12	SignsofHeating	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Latest condition of signs of heating	Based on TEMPBELLI and TEMPBELLO. If TEMPBELLI is great than 80 or TEMPEBELLO is greater than 80 then "Major Deterioration", all else set to blank	REGdb	APR16.Condition_Dim	MeasureValue	SELECT SignsofHeating = Case When cast(TEMPBELLI as int) >80 or cast(TEMPBELLO as int) >80 Then 'Major Deterioration' -- if greater than sealling compound threshold (FIXED 1March2016) Else '' End
LV UGB	M2DI13	PhaseBarriers	Yes,Missing	Latest data, per asset	Whether the asset has phase barriers or not	Based on PhaseBarr measure. If PhaseBarr = "Y" then "Yes", If PhaseBarr = "N" then "Missing", all else set to blank	REGdb	APR16.NPL_NonCritical_Dim	AttributeValue	SELECT PhaseBarriers = Case When PhaseBarr = 'Y' then 'Yes' When PhaseBarr = 'N' then 'Missing' Else '' End

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV UGB	M2DI14	OperationalAdequacy	Operable,Inoperable	Latest data, per asset	Asset's operational adequacy	Based on DEFECTSTK and DEFECTFLO. If DEFECTSTK = 4 then "Inoperable", if DEFECTFLO = 4 then "Inoperable", all else set to blank	REGdb	APR16.Condition_Dim	MeasureValue	SELECT OperationalAdequacy = case When DEFECTSTK = 4 then 'Inoperable' ---- Stalks Misalligned/Burnt when DEFECTFLO = 4 then 'Inoperable' ----Flooded Else 'Operable' End
LV UGB	M2DI15	ReliabilityFactorInput		Latest data, per asset	The reliability of the asset	Derived from LBOXMATL, Cal_Year and YearManuf. If LBOXMATL is null and (Cal_Year or YearManuf is less or equal to 2003 or LBOXMATL is Cast Iron) and NOWAYS >=4) then 1.3, LBOXMATL is null and (Cal_Year or YearManuf is less or equal to 2003 or LBOXMATL is Cast Iron) and NOWAYS <4) then 1.1, all else set to blank	REGdb	APR16.NPL_NonCritical_Dim	AttributeValue	SELECT ReliabilityFactorInput = Case When (isnull(LBOXMATL, 'OTHER') = 'OTHER' AND (round(ISNull(cal_year, eqd.YearManuf) + 1, -4)/10000<=2003) OR LBOXMATL ='Cast Iron') AND (ceiling((NOWAYS+1)/2)*2 >= 4) then '1.3' When (isnull(LBOXMATL, 'OTHER') = 'OTHER' AND (round(ISNull(cal_year, eqd.YearManuf) + 1, -4)/10000<=2003) OR LBOXMATL = 'Cast Iron') AND (ceiling((NOWAYS+1)/2)*2 < 4) then '1.1' else '' End
LV UGB	M2DI16	ReliabilityCollarInput		Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for Linkbox	N/A	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
LV UGB	M2DI17	NoOfUnits		Latest data, per asset	Number of Linkbox per record	1 per record	N/A	N/A	N/A	SELECT '1' as NoOfUnits
LV UGB	M2DI18	TypeSafetyRating	Low,Medium,High	Latest data, per asset	This addresses the principal characteristics of the equipment and its particular siting.	Based on ESCEquipRisk. If ESCEquipRisk = 1 then "Low", if ESCEquipRisk = 2 then "Medium", if ESCEquipRisk = 3 or 4 then "High", all else set to blank	REGdb	APR16.ESQCMeasures_Dim	ESCEquipRisk	SELECT LocationSafetyRating = Case when ESQCLocationRisk = '1 - LOW' then 'Low' when ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when ESQCLocationRisk = '3 - HIGH' then 'High' when ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' End
LV UGB	M2DI19	LocationSafetyRating	Low,Medium,High	Latest data, per asset	This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on ESQCLocationRisk. If ESQCLocationRisk = 1 then "Low", if ESQCLocationRisk = 2 then "Medium", if ESQCLocationRisk = 3 or 4 then High, all else set to blank	REGdb	APR16.ESQCMeasures_Dim	ESQCLocationRisk	SELECT LocationSafetyRating = Case when ESQCLocationRisk = '1 - LOW' then 'Low' when ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when ESQCLocationRisk = '3 - HIGH' then 'High' when ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' End
LV UGB	M2DI20	NumberofConnectedCustomers		Latest data, per asset	Number of customer affected by the linkbox if fails	Based on [No of Customers connected]	CFM	DBO.LVUGB_CustomerNo	[No of Customers connected]	SELECT isnull(cast([No of Customers connected] as int),'') As NumberOfConnectedCustomers
LV UGB	M2DI21	CustomerSensitivityFactor		Latest data, per asset	The Customer Sensitivity Factor is used to reflect circumstances where the customer impact is increased due to customer reliance on electricity (e.g. vulnerable customers). DNOs may use this factor at their discretion in order to modify the Network Performance Consequence Factor.	N/A	N/A	N/A	N/A	SELECT '' as CustomerSensitivityFactor

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV UGB	M2DI 22	KVABandPer Customer	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	This Factor is used to reflect the number of customers impacted by failure of an individual asset, relative to the reference number of customers used in the derivation of the Reference Network Performance Cost of Failure.	N/A	N/A	N/A	N/A	SELECT '' as KVABandPerCustomer

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV Switchgear	M3DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT EquipNo AS AssetID
LV Switchgear	M3DI2	Manufacturer_Model		Latest data, per asset	The manufacturer and model names of the asset	Created by concatenating the Manufacturer name and model with a dash in-between	STGDW04	Equip_Dim	Manufacturer AND ManufModel	SELECT Manufacturer + '-' + ManufModel AS Manufacturer_Model
LV Switchgear	M3DI3	SiteName		Latest data, per asset	Name of the site location of the asset	Extracted from the Sitename field in the Equip_Dim table	STGDW04	Equip_Dim	SiteName	SELECT replace(SiteName, ',', ' ') AS SiteName
LV Switchgear	M3DI4	Parish		Latest data, per asset	Relates to the location of the asset	Represented by "Parish" in the asset register with any commas replaced with space.	STGDW04	Equip_Dim	Parish	SELECT REPLACE(Parish, ',' , ' ') as Parish
LV Switchgear	M3DI5	HealthIndexAssetCategory	LV Switchgear and Other	Latest data, per asset	CNAIM Health Index Asset Category	Always 'LV Switchgear and Other'	N/A	N/A	N/A	Select 'LV Switchgear and Other' AS HealthIndexAssetCategory
LV Switchgear	M3DI6	AssetRegisterCategory	LV Board (WM),LV Board (X-type Network)(WM),LV Circuit Breaker,LV Pillar (ID),LV Pillar (OD at Substation),LV Pillar (OD not at a Substation),132/11kV, 132/20kV	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row: If [ED1_Row] = '037' THEN 'LV Circuit Breaker' If [ED1_Row] = '038' THEN 'LV Pillar (ID)' If [ED1_Row] = '039' THEN 'LV Pillar (OD at Substation)' If [ED1_Row] = '041' THEN 'LV Board (WM)' If [ED1_Row] = '040' THEN 'LV Pillar (OD not at a Substation)'	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT CASE WHEN [ED1_Row] = '037' THEN 'LV Circuit Breaker' WHEN [ED1_Row] = '038' THEN 'LV Pillar (ID)' WHEN [ED1_Row] = '039' THEN 'LV Pillar (OD at Substation)' WHEN [ED1_Row] = '041' THEN 'LV Board (WM)' WHEN [ED1_Row] = '040' THEN 'LV Pillar (OD not at a Substation)' END AS AssetRegisterCategory
LV Switchgear	M3DI7	DistanceFromCoast		Latest data, per asset	Distance from coast to asset	Extracted from the DISTNCEFROMCOAST(KM) field	CFM	LV_Switchgear_and_Other_GIS	DistanceFromCoast(km)	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
LV Switchgear	M3DI8	Altitude		Latest data, per asset	Altitude	Extracted from the [ALTITUDE(M)] field	CFM	LV_Switchgear_and_Other_GIS	[ALTITUDE(M)]	SELECT [ALTITUDE(M)] AS Altitude
LV Switchgear	M3DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	Extracted from the [CorrosionCategoryIndex] field	CFM	LV_Switchgear_and_Other_GIS	[CorrosionCategoryIndex]	SELECT [CorrosionCategoryIndex] AS CorrosionCategory
LV Switchgear	M3DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Determines situation of asset to be indoors or outdoors	Based on the EquipSituation field: If EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' If EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' If EquipSituation is unsuitable then ED1_Row field is used: If [ED1_Row] = '038' THEN 'Indoor' If [ED1_Row] = '039' Then 'Outdoor' If [ED1_Row] = '041' then 'Indoor' If [ED1_Row] = '040' then 'Outdoor' Blank for any other cases	STGDW04 (ED) AND STGDW03	Equip_Dim (ED) AND Age_Profile_Data_Inst_Date_2015_6	EquipSituation (ED) AND ED1_Row	SELECT CASE WHEN ED.EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN ED.EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' WHEN EDM.[ED1_Row] = '038' THEN 'Indoor' WHEN EDM.[ED1_Row] = '039' Then 'Outdoor' WHEN EDM.[ED1_Row] = '041' then 'Indoor' WHEN EDM.[ED1_Row] = '040' then 'Outdoor' ELSE '' END AS Indoor_Outdoor
LV Switchgear	M3DI11	Age		Latest data, per asset	Age of the asset in years	Calculated using the inst_date: If inst_date is greater than 2016-04-01 then age is taken as 0 Otherwise difference in years between inst_date and 2016-04-01 If the inst_date is unsuitable then age is taken as the difference between cal_year and 2016-04-01 For any other cases the age is taken as 51 (2016 - 1965)	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date AND cal_year	SELECT ISNULL(CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END, isnull(2016.0 - cal_year, 2016.0 - 1965.0)) as Age

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV Switchgear	M3DI12	LVPillarSwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the LV Pillar and the Service turret	Filter on Equipment Class for LP (LV Network Pillar) and ST (Service Turret). When CONDHOUS OR CONDTURRT = 4 'Substantial Deterioration', When CONDHOUS OR CONDTURRT = 3 'Some Deterioration', When CONDHOUS OR CONDTURRT = 2 'Normal wear', When CONDHOUS OR CONDTURRT = 1 'As New'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDHOUS and COUNDTURRT	SELECT LVPillarSwitchgearExternalCondition = CASE WHEN EquipClass IN ('LP','ST') AND (CONDHOUS = 4 OR CONDTURRT = 4) THEN 'Substantial Deterioration' WHEN EquipClass IN ('LP','ST') AND (CONDHOUS = 3 OR CONDTURRT = 3) THEN 'Some Deterioration' WHEN EquipClass IN ('LP','ST') AND (CONDHOUS = 2 OR CONDTURRT = 2) THEN 'Normal Wear' WHEN EquipClass IN ('LP','ST') AND (CONDHOUS = 1 OR CONDTURRT = 1) THEN 'As New' ELSE '' END
LV Switchgear	M3DI13	LVPillarCompoundLeaks	Good,Slight Leak,Poor	Latest data, per asset	Records sealing compound leakage for the LV Pillar and the Service turret at cable terminations	Filter on Equipment Class for LP (LV Network Pillar) and ST (Service Turret). If DEFSEVCOM = 4 or DEFECTCOM = 4 then set to 'Poor' otherwise set to 'Good'	REGdb	APR16.Condition_Dim	MeasureName AS DEFSEVCOM and DEFECTCOM	SELECT LVPillarCompoundLeaks = CASE WHEN EquipClass IN ('LP','ST') AND (DEFSEVCOM = 4 or DEFECTCOM = 4) THEN 'Poor' ELSE 'Good' END
LV Switchgear	M3DI14	LVPillarInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the LV Pillar and the Service turret	Filter on Equipment Class for LP (LV Network Pillar) and ST (Service Turret). When CONDITION = 4 'Substantial Deterioration', When CONDITION = 3 'Some Deterioration', When CONDITION = 2 'Normal wear', When CONDITION = 1 'As New'. When MeasureDateKey is not blank 'Normal Wear'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDITION	SELECT LVPillarInternalCondition_Operation = CASE WHEN EquipClass IN ('LP','ST') AND CONDITION = 4 THEN 'Substantial Deterioration' WHEN EquipClass IN ('LP','ST') AND CONDITION = 3 THEN 'Some Deterioration' WHEN EquipClass IN ('LP','ST') AND CONDITION = 2 THEN 'Normal Wear' WHEN EquipClass IN ('LP','ST') AND CONDITION = 1 THEN 'As New' When EquipClass IN ('LP','ST') And MD.MeasuredateKey is NOt NUll then 'Normal Wear' ELSE '' END
LV Switchgear	M3DI15	LVPillarInsulationCondition	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines theinsulation condition of the LV Pillar and the Service turret	Filter on Equipment Class for LP (LV Network Pillar) and ST (Service Turret). When DEFECTCLV = 4 'Substantial Deterioration' Otherwise 'Satisfactory'	REGdb	APR16.Condition_Dim	MeasureName AS DEFECTCLV	SELECT LVPillarInsulationCondition = CASE WHEN EquipClass IN ('LP','ST') AND DEFECTCLV = 4 THEN 'Substantial Deterioration' ELSE 'Satisfactory' END
LV Switchgear	M3DI16	LVPillarSignsofHeating	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Determines if any signs of heating are present	Always ''	N/A	N/A	N/A	SELECT '' AS LVPillarSignsOfHeating
LV Switchgear	M3DI17	LVPillarPhaseBarriers	Missing,Yes	Latest data, per asset	Determines if a phase barrier is present	When DEFECTPHS = 4 the phase barrier is missing if DEFECTPHS = 1 the barrier is present. Otherwise we assume the barrier is present	REGdb	APR16.Condition_Dim	MeasureName AS DEFECTPHS	SELECT LVPillarPhaseBarriers = CASE WHEN DEFECTPHS = 4 THEN 'Missing' WHEN DEFECTPHS = 1 THEN 'Yes' ELSE 'Yes' END
LV Switchgear	M3DI18	LVBoardSwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the LV AC Board and the LV Distribution Board	Filter on Equipment Class for LV (LV AC Board) and DB (LV Distribution Board). When CONDHOUS = 4 'Substantial Deterioration', When CONDHOUS = 3 'Some Deterioration', When CONDHOUS = 2 'Normal wear', When CONDHOUS = 1 'As New'. When MeasureDateKey is not null then 'Normal Wear'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDHOUS	SELECT LVBoardSwitchgearExternalCondition = CASE WHEN EquipClass IN ('LV','DB') AND CONDHOUS = 4 THEN 'Substantial Deterioration' WHEN EquipClass IN ('LV','DB') AND CONDHOUS = 3 THEN 'Some Deterioration' WHEN EquipClass IN ('LV','DB') AND CONDHOUS = 2 THEN 'Normal Wear' WHEN EquipClass IN ('LV','DB') AND CONDHOUS = 1 THEN 'As New' When EquipClass IN ('LV','DB') And MD.MeasuredateKey is NOt NUll then 'Normal Wear' ELSE '' END
LV Switchgear	M3DI19	LVBoardCompoundLeaks	Good,Slight Leak,Poor	Latest data, per asset	Records sealing compound leakage for the LV AC Board and the LV Distribution Board at cable terminations	Filter on Equipment Class for LV (LV AC Board) and DB (LV Distribution Board). If DEFSEVCOM = 4 then set to 'Poor' Otherwise set to 'Good'	REGdb	APR16.Condition_Dim	MeasureName AS DEFSEVCOM	SELECT LVBoardCompoundLeaks = CASE WHEN EquipClass IN ('LV','DB') AND DEFSEVCOM = 4 THEN 'Poor' ELSE 'Good' END
LV Switchgear	M3DI20	LVBoardInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the LV AC Board and the LV Distribution Board	Filter on Equipment Class for LV (LV AC Board) and DB (LV Distribution Board). When CONDITION = 4 'Substantial Deterioration', When CONDITION = 3 'Some Deterioration', When CONDITION = 2 'Normal wear', When CONDITION = 1 'As New'. When MeasureDateKey is not blank 'Normal Wear'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDITION	SELECT LVBoardInternalCondition_Operation = CASE WHEN EquipClass IN ('LV','DB') AND CONDITION = 4 THEN 'Substantial Deterioration' WHEN EquipClass IN ('LV','DB') AND CONDITION = 3 THEN 'Some Deterioration' WHEN EquipClass IN ('LV','DB') AND CONDITION = 2 THEN 'Normal Wear' WHEN EquipClass IN ('LV','DB') AND CONDITION = 1 THEN 'As New' When EquipClass IN ('LV','DB') And MD.MeasuredateKey is NOt NUll then 'Normal Wear' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV Switchgear	M3DI21	LVCircuitBreakerExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the LV Circuit Breaker	Filter on Equipment Class for LC (LV Circuit Breaker). When CONDHOUS = 4 'Substantial Deterioration', When CONDHOUS = 3 'Some Deterioration', When CONDHOUS = 2 'Normal wear', When CONDHOUS = 1 'As New'.	REGdb	APR16.Condition_Dim	MeasureName AS CONDHOUS	SELECT LVCircuitBreakerExternalCondition = CASE WHEN EquipClass = 'LC' AND CONDHOUS = 4 THEN 'Substantial Deterioration' WHEN EquipClass = 'LC' AND CONDHOUS = 3 THEN 'Some Deterioration' WHEN EquipClass = 'LC' AND CONDHOUS = 2 THEN 'Normal Wear' WHEN EquipClass = 'LC' AND CONDHOUS = 1 THEN 'As New' END
LV Switchgear	M3DI33	LVCircuitBreakerOperationalAdequacy	Acceptable,Unacceptable	Latest data, per asset	Determines the Operational Adequacy of the LV Circuit Breaker	Filter on Equipment Class for LC (LV Circuit Breaker). When any one of OPERATION, CONDMECH, TRIPTEST, DEFOPMECH or DEFSEVCOR = 4 the circuit breaker is inadequate. Provided at least OPERATION, CONDMECH and DEFOPMECH are less than 4 the breaker is considered adequate. Otherwise, if MeasuredateKey is not blank the breaker is adequate. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS OPERATION and CONDMECH and TRIPTEST and DEFOPMECH and DEFSEVCOR	SELECT LVCircuitBreakerOperationalAdequacy = CASE WHEN EquipClass = 'LC' AND (OPERATION = 4 OR CONDMECH = 4 OR TRIPTEST = 4 OR DEFOPMECH = 4 OR DEFSEVCOR = 4) THEN 'Unacceptable' WHEN EquipClass = 'LC' AND (OPERATION < 4 AND CONDMECH < 4 AND DEFOPMECH < 4) THEN 'Acceptable' When EquipClass = 'LC' And MD.MeasuredateKey is NOt NUll then 'Acceptable' ELSE '' END
LV Switchgear	M3DI34	LVBoardOperationalAdequacy	Operable,Inoperable - Secure,Inoperable - Hazardous	Latest data, per asset	Determines the Operational Adequacy of the LV AC Board and the LV Distribution Board	Filter on Equipment Class forLV (LV AC Board) and DB (LV Distribution Board). If either OPERATION = 4 or CONDFUSE = 4 and either DEFECTSTK = 4 or DEFSEVCOR = 4 'Inoperable - Hazardous'. If any of OPERATION, CONDFUSE, DEFECTSTK or DEFSEVCOR = 4 'Inoperable - Secure'. If both OPERATION and CONDFUSE are less than 4 and either DEFECTSTK or DEFSEVCOR are also less than 4 'Operable'. Otherwise, if MeasuredateKey is not blank the breaker is 'Operable'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS OPERATION and CONDFUSE and DEFECTSTK and DEFSEVCOR	SELECT LVBoardOperationalAdequacy = CASE WHEN EquipClass IN ('LV','DB') AND (OPERATION = 4 OR CONDFUSE = 4) AND (DEFECTSTK = 4 OR DEFSEVCOR = 4) THEN 'Inoperable - Hazardous' WHEN EquipClass IN ('LV','DB') AND (OPERATION = 4 OR CONDFUSE = 4 OR DEFECTSTK = 4 OR DEFSEVCOR = 4) THEN 'Inoperable - Secure' WHEN EquipClass IN ('LV','DB') AND (OPERATION < 4 AND CONDFUSE < 4 AND (DEFECTSTK < 4 OR DEFSEVCOR < 4)) THEN 'Operable' When EquipClass IN ('LV','DB') And MD.MeasuredateKey is NOt NUll then 'Operable' ELSE '' END
LV Switchgear	M3DI22	LVPillarOperationalAdequacy	Operable,Inoperable - Secure,Inoperable - Hazardous	Latest data, per asset	Determines the Operational Adequacy of the LV Pillar and the Service turret	Filter on Equipment Class for LP (LV Network Pillar) and ST (Service Turret). If both CONDFUSE and DEFSEVCOR = 4 'Inoperable - Hazardous'.If either CONDFUSE or DEFSEVCOR = 4 'Inoperable - Secure'. If both CONDFUSE abd DEFSEVCOR are less than 4 'Operable'.If MeasuredateKey is not blank 'Operable'. Otherwise blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDFUSE and DEFSEVCOR	SELECT LVPillarOperationalAdequacy = CASE WHEN EquipClass IN ('LP','ST') AND (CONDFUSE = 4 AND DEFSEVCOR = 4) THEN 'Inoperable - Hazardous' WHEN EquipClass IN ('LP','ST') AND (CONDFUSE = 4 OR DEFSEVCOR = 4) THEN 'Inoperable - Secure' WHEN EquipClass IN ('LP','ST') AND (CONDFUSE < 4 AND DEFSEVCOR = 4) THEN 'Operable' When EquipClass IN ('LP','ST') And MD.MeasuredateKey is NOt NUll then 'Operable' ELSE '' END
LV Switchgear	M3DI23	LVBoardSecurity	Satisfactory,Unsatisfactory	Latest data, per asset	LV AC Board and the LV Distribution Board security	Always empty	N/A	N/A	N/A	SELECT '' AS LVboardSecurity
LV Switchgear	M3DI24	ReliabilityFactorInput		Latest data, per asset	Modifier applied to Health Score based on specific knowledge of asset	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityFactorInput
LV Switchgear	M3DI25	ReliabilityCollarInput		Latest data, per asset	Minimum health score used as an overide	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
LV Switchgear	M3DI26	NoOfUnits		Latest data, per asset	Number of LV Switchgear units per record	1 per record	N/A	N/A	N/A	SELECT 1 AS NoOfUnits

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
LV Switchgear	M3DI27	TypeSafetyRating	Low,Medium,High	Latest data, per asset	Provides the safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	TypeSafetyRating is calculated as: 'Low' if the ESCEquipRisk for the asset, parent, grandparent or great-grandparent is 'Low', 'Medium' if the ESCEquipRisk for the asset, parent, grandparent or great-grandparent is 'Medium' and 'High' if the ESCEquipRisk for the asset, parent, grandparent or great-grandparent is 'High', Otherwise it is left blank	STGDW04	ESQCMeasures_Dim	ESCEquipRisk	See Appendix 1
LV Switchgear	M3DI28	LocationSafetyRating	Low,Medium,High	Latest data, per asset	Provides the locational safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	LocationSafetyRating is calculated as: 'Low' if the ESQCLocationRisk for the asset, parent, grandparent or great-grandparent is 'Low', 'Medium' if the ESQCLocationRisk for the asset, parent, grandparent or great-grandparent is 'Medium' and 'High' if the ESQCLocationRisk for the asset, parent, grandparent or great-grandparent is 'High', Otherwise it is left blank	STGDW04	ESQCMeasures_Dim	ESQCLocationRisk	See Appendix 1
LV Switchgear	M3DI29	NumberofConnectedCustomers		Latest data, per asset	Number of Connected Customers	Based on the [Number of Customers] field from the Load table	CFM	LV_Switchgear_and_Other_Load	[Number of Customers]	SELECT [Number of Customers] AS NumberOfConnectedCustomers
LV Switchgear	M3DI30	CustomerSensitivityFactor		Latest data, per asset	Customer Sensitivity Factor	Always ''	N/A	N/A	N/A	SELECT '' AS CustomerSensitivityFactor
LV Switchgear	M3DI31	KVABandPerCustomer	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	KVA Band Per Customer	Always ''	N/A	N/A	N/A	SELECT '' AS KVABandPerCustomer
LV Switchgear	M3DI32	TypeFinancialRating	Non Asbestos Clad,Asbestos Clad	Latest data, per asset	TypeFinancialRating	Always ''	N/A	N/A	N/A	SELECT '' AS TypeFinancialrating
LV Switchgear	M3DI35	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	Determine access condition of asset	If EquipSituation is 'Outdoor' or 'GRP' or ConfinedSpace is 'Type A Confined Space' or 'No Confined Space' the access rating is 'Type A Criteria - Normal Access'. If ConfinedSpace is 'Type B (24 Hours)' or 'Type B (Out Of Hours)' the access rating is 'Type B Criteria - Constrained/Confined'. If ConfinedSpace is 'Type C Confined Space' then the access rating is 'Type C Criteria - Underground'. Otherwise blank	STGDW04	Equip_Dim (ED)ANDLocation_Dim (LD)	EquipSituationANDConfinedSpace	SELECT AccessFinancialRating = CASE WHEN ED.EquipSituation IN ('Outdoor', 'GRP') OR LD.ConfinedSpace IN ('Type A Confined Space', 'No Confined Space') THEN 'Type A Criteria - Normal Access' WHEN LD.ConfinedSpace IN ('Type B (24 Hours)', 'Type B (Out Of Hours)') THEN 'Type B Criteria - Constrained/Confined' WHEN LD.ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV OHL Support	M4DI 1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT equip_no as AssetID
HV OHL Support	M4DI 2	Voltage		Latest data, per asset	Voltage of line carried by the pole	Extracted from the equipgrpiddesc field	REGdb	APR16.Equip_Dim	equipgrpiddesc	SELECT equipgrpiddesc as Voltage
HV OHL Support	M4DI 3	RouteName		Latest data, per asset	Route Name	Extracted from the RouteName field	REGdb	APR16.Equip_Dim	RouteName	SELECT [RouteName] as RouteName
HV OHL Support	M4DI 4	RouteNo.		Latest data, per asset	Route Number	Represented by "RouteNo" in the asset register	REGdb	APR16.Equip_Dim	[RouteNo]	SELECT [RouteNo] as [RouteNo.]
HV OHL Support	M4DI 5	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'HV OHL Support - Poles'	N/A	N/A	N/A	SELECT 'HV OHL Support - Poles' as HealthIndexAssetCategory
HV OHL Support	M4DI 6	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row, if "050" then "6.6/11kV Poles", if "051" then "20kV Poles". "ERROR" for any other cases.	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN ED1_Row = '050' THEN '6.6/11kV Poles' WHEN ED1_Row = '051' THEN '20kV Poles' ELSE 'ERROR' END
HV OHL Support	M4DI 7	DistanceFromCoast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	HVPole_GIS	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
HV OHL Support	M4DI 8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field.	CFM	HVPole_GIS	ALTITUDE(M)	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
HV OHL Support	M4DI 9	CorrosionCategory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	HVPole_GIS	CorrosionCategoryIndex	SELECT CorrosionCategoryIndex as CorrosionCategory
HV OHL Support	M4DI 10	Indoor_Outdoor	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
HV OHL Support	M4DI 11	MaterialPoles	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Type of material the pole is made of	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeName AND attributeValue	SELECT MaterialPoles = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END
HV OHL Support	M4DI 12	ExpectedLife Subdivision	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Expected life sub-division of the pole	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Fibre Glass" or "Aluminium" then "Other (e.g. fibreglass)", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" or "Steel Tubing - Adastra" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeNameANDattributeValue	SELECT ExpectedLifeSubdivision = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Fibre Glass' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Aluminium' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END
HV OHL Support	M4DI 13	Age	Yes,Missing	Latest data, per asset	Age of the pole in years	Based on the installation date of the asset, if installed later than 2016-04-01 then the age is 0, for any other cases it is equal to the difference in years between the installation date (taken as date from edm first, if missing then commisioning date from ed) and 2016-04-01.	STGDW03 AND REGdb	Age_Profile_Data_Inst_Date_2015_6 AND APR16.Equip_Dim (as ed)	inst_date AND CommDate	SELECT Age = CASE WHEN isnull(inst_date, convert(char(8),ed.CommDate,111)) > '2016-04-01' then 0 ELSE datediff(DD, isnull (inst_date, convert(char(8),ed.CommDate,111)),'2016-04-01')/365.25 END

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV OHL Support	M4DI 14	VisualPoleCo ndition	Operable,Inoperable	Latest data, per asset	Condition of the pole	Based on the material of the pole, latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) and the worst latest condition values (MeasureValue) recorder against MeasureName values in this list: 'HVPOLICON','HVPOLECON','POLEREA SN','STEELCON','PAINTCON','DEFECTL PO','POLEROT'. If pole material is "Wood" and HVPOLECON is 4 and the defect fields do not contain "Pole Top Rot" or "Woodpecker Holes" then "Substantial Deterioration", if pole material is "Wood" and HVPOLECON is 3 or 4 then "Some Deterioration", if pole material is "Wood" and HVPOLECON is 1 or 2 then "Acceptable", if pole material is not "Wood" and HVPOLECON or STEELCON is 4 then "Substantial Deterioration", if pole material is not "Wood" and HVPOLECON or STEELCON is 3 then "Some Deterioration", if pole material is not "Wood" and HVPOLECON or STEELCON is less than 3 then "Acceptable". Empty for any other cases.	STGDW04 AND REGdb	[DBO].[NPL_NonCrit ical_Dim] AND [APR16].[Condition_ Dim]	MeasureName AND MeasureValue AND CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT VisualPoleCondition = CASE WHEN MATERIALPOLE = 'Wood' AND HVPOLECON = 4 AND NOT (CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1= 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2= 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes') THEN 'Substantial Deterioration' WHEN MATERIALPOLE = 'Wood' AND (HVPOLECON IN (3, 4)) THEN 'Some Deterioration' WHEN MATERIALPOLE = 'Wood' AND (HVPOLECON IN (1, 2))THEN 'Acceptable' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON = 4 OR STEELCON = 4) THEN 'Substantial Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON = 3 OR STEELCON = 3) THEN 'Some Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON < 3 OR STEELCON < 3) THEN 'Acceptable' ELSE '' END
HV OHL Support	M4DI 15	PoleTopRot		Latest data, per asset	Shows if the presence of rot at the top of the pole was observed during examinations/inspections	Based on the latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole condition measures 'HVPOLECON', 'HVPOLICON' and 'POLEREASN'. If "Pole Top Rot" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_ Dim]	CDEVI1(2 ,3)ANDCDPVI1(2,3)	SELECT PoleTopRot = CASE WHEN CDIVI1 = 'Pole Top Rot' OR CDIVI2 = 'Pole Top Rot' OR CDIVI3 = 'Pole Top Rot' OR CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1 = 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' THEN 'Yes' ELSE 'No'END
HV OHL Support	M4DI 16	PoleLeaning		Latest data, per asset	Shows if during the examinations/inspections the pole was leaning	Derived from the latest worst attributeValue field values corresponding to attributeName equal to "DEFECTLPO". If 4 recorded against DEFECTLPO then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_ Dim]	attributeName AND attributeValue	SELECT PoleLeaning = CASE WHEN DEFECTLPO = '4' THEN 'Yes' ELSE 'No' END
HV OHL Support	M4DI 17	Bird_AnimalD amage		Latest data, per asset	Shows if the presence damage caused by animals was observed during examinations/inspections	Based on the latest defects (fields CDEVI1(2 ,3), CDIVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole. If "Woodpecker Holes" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_ Dim]	CDIVI1(2 ,3) AND CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT Bird_AnimalDamage = CASE WHEN CDIVI1 = 'Woodpecker Holes' OR CDIVI2 = 'Woodpecker Holes' OR CDIVI3 = 'Woodpecker Holes' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2 = 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes' THEN 'Yes' ELSE 'No' END

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV OHL Support	M4DI 18	PoleDecay_Deterioration	Low,Medium,High	Latest data, per asset	Degree of pole decay/deterioration	Based on Pole Type (pt.PoleCategory - see "Pole_Category" sheet), Pole Category (pcat.PoleCategory - see "Pole_Category" sheet) and worst latest pole condition data (attributeValue) recorded against attributeName from this list: "STEELCON", "POLEROT" and "HVPOLICON". PoleDecay_Deterioration is "Very High" when STEELCON is 4 or HVPOLICON is 4 or: POLEROT is less than 70 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 65 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 60 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 75 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 65 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout" or POLEROT is less than 80 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 75 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 70 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "High" when STEELCON is 3 or HVPOLICON is 3 or: POLEROT is less than 85 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 82.5 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 80 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 88 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 82.5 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout" or POLEROT is less than 92 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 88 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 85 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "No Significant Decay/Deterioration" when STEELCON is 2 or HVPOLICON is 2 or: POLEROT is less than 92.5 for Pole Type "Inter" and Pole Category "Light" or POLEROT is less than 91.25 for Pole Type "INTER" and Pole Category "Medium" or POLEROT is less than 90 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout" or or POLEROT is less than 94.5 for Pole Type "PLANT" and Pole Category "Light" or "Medium" or POLEROT is less than 91.25 for Pole Type "PLANT" and Pole Category "Stout"	REGdb	[APR16].[Condition_Dim]	attributeName AND attributeValue	SELECT PoleDecay_Deterioration = CASE WHEN pt.PoleCategory = 'INTER' AND pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory In ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 60 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 80 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 90 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory IN ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 80 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 92 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 98 THEN

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
						or "Extra Stout" or POLEROT is less than 98 for Pole Type "STRAIN" and Pole Category "Light" or POLEROT is less than 94.5 for Pole Type "STRAIN" and Pole Category "Medium" or POLEROT is less than 92.5 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout" PoleDecay_Deterioration is "No Significant Decay/Deterioration" for any other cases.				'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END WHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory IN ('Stout','Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' END ELSE 'No Significant Decay/Deterioration' END
HV OHL Support	M4DI 19	ReliabilityFactorInput	Low,Medium,High	Latest data, per asset	The reliability of the asset	Derived from the values in attributeValue field against records that have "PRESERVATIVE" in the AttributeName field. If attributeValue is "AC500" or "CCA" THEN "1.5". Empty for any other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeNameANDattributeValue	SELECT ReliabilityFactorInput = CASEWHEN PRESERVATIVE IN ('AC500' , 'CCA') THEN '1.5'ELSE '' END
HV OHL Support	M4DI 20	ReliabilityCollarInput		Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for tower supports	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
HV OHL Support	M4DI 21	NoOfUnits		Latest data, per asset	Number of poles per record	Always 1 unit	N/A	N/A	N/A	SELECT 1 as NoOfUnits
HV OHL Support	M4DI 22	TypeSafetyRating	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	This addresses the principal characteristics of the equipment and its particular siting.	Based on the latest values of the ESCEquipRisk value: If "1 - LOW" then "Low", if "2 - MEDIUM" then "Medium", if "3 - HIGH" or "4 - V.HIGH" then "High". Empty for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESCEquipRisk	SELECT TypeSafetyRating = case when ESCEquipRisk = '1 - LOW' then 'Low' when ESCEquipRisk = '2 - MEDIUM' then 'Medium' when ESCEquipRisk = '3 - HIGH' then 'High' when ESCEquipRisk = '4 - V.HIGH' then 'High' Else '' End
HV OHL Support	M4DI 24	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the ESQCLocationRisk value: If "1 - LOW" then "Low", if "2 - MEDIUM" then "Medium", if "3 - HIGH" or "4 - V.HIGH" then "High". Empty for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESQCLocationRisk	SELECT LocationSafetyRating = Case when ESQCLocationRisk = '1 - LOW' then 'Low' when ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when ESQCLocationRisk = '3 - HIGH' then 'High' when ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' End
HV OHL Support	M4DI 25	NumberofConnectedCustomers			Number of customers connected to the power line carried by the pole	Based on the [Customer Count] field	CFM	dbo.HVPole_Load	[Customer Count]	SELECT [Customer Count] as NumberofConnectedCustomers

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV OHL Support	M4DI 26	CustomerSensitivityFactor			CustomerSensitivityFactor	UKPN does not currently record this information	N/A	N/A	N/A	SELECT '' as CustomerSensitivityFactor
HV OHL Support	M4DI 27	KVABandPerCustomer			KVABandPerCustomer	UKPN does not currently record this information	N/A	N/A	N/A	SELECT '' as KVABandPerCustomer
HV OHL Support	M4DI 28	TypeFinancialRating			Financial Type	Based on the material of the pole and Pole Type (pt.PoleCategory). See sheet "Pole_Category" for the business rules related to Pole Type. TypeFinancialRating is "Steel Poles" when the material of the pole is "Steel". TypeFinancialRating is "Pole (terminal poles)" when Pole Type is "STRAIN" and "Pole (excluding terminal poles)" when Pole Type is "INTER".	[STGDW04]	[DBO].[NPL_NonCritical_Dim] AND [dbo].[EQUIP_DIM]	AttributeName AND attributeValue	SELECT TypeFinancialRating = CASE When MATERIALPOLE = 'Steel' then 'Small Footprint Steel Masts' when PoleCategory = 'STRAIN' THEN 'Pole (Supporting Plant or Equipment)' WHEN PoleCategory = 'INTER' THEN 'Pole (Supporting Conductor only)' Else '' End
HV OHL Support	M4DI 29	AccessFinancialRating			Access Financial Rating	Derived from the ESQCSpanLocationRiskCode field: if contains "LZ" or "LR" or "LW" or "LQ" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other cases.	[STGDW04]	[DBO].[ESQCMeasures_Dim]	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access'END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT EquipNo AS AssetID
HV Switchgear (GM) - Primary	M5DI2	SiteName		Latest data, per asset	Name of the site location of the asset	Extracted from the Sitename field in the Equip_Dim table	STGDW04	Equip_Dim	SiteName	SELECT replace(SiteName, ',', ' ') AS SiteName
HV Switchgear (GM) - Primary	M5DI3	AssetName		Latest data, per asset	Asset name	Extracted from the AssetName field in the Equip_Dim table	STGDW04	Equip_Dim	AssetName	SELECT REPLACE(AssetName,',', ' ') AS AssetName
HV Switchgear (GM) - Primary	M5DI4	Manufacturer_Model		Latest data, per asset	The manufacturer and model names of the asset	Created by concatenating the Manufacturer name and model with a dash in-between	STGDW04	Equip_Dim	Manufacturer AND ManufModel	SELECT Manufacturer + '-' + ManufModel AS Manufacturer_Model
HV Switchgear (GM) - Primary	M5DI5	HealthIndexAssetCategory	HV Switchgear (GM) - Primary	Latest data, per asset	CNAIM Health Index Asset Category	Always 'HV Switchgear (GM) - Primary'	N/A	N/A	N/A	Select 'HV Switchgear (GM) - Primary' AS HealthIndexAssetCategory
HV Switchgear (GM) - Primary	M5DI6	AssetRegisterCategory	6.6/11kV CB (GM) Primary,20kV CB (GM) Primary	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row. 056 = '6.6/11kV CB (GM) Primary', 064 '20kV CB (GM) Primary' 'ERROR' for any other cases	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN ED1_ROW = '056' THEN '6.6/11kV CB (GM) Primary' WHEN ED1_ROW = '064' THEN '20kV CB (GM) Primary' ELSE 'ERROR' END
HV Switchgear (GM) - Primary	M5DI7	DistanceFromCoast		Latest data, per asset	Distance from coast to asset	Extracted from the DISTNCEFROMCOAST(KM) field	CFM	HV_Switchgear_(GM)_Primary_GIS	DISTANCEFROMCOAST(KM)	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
HV Switchgear (GM) - Primary	M5DI8	Altitude		Latest data, per asset	Altitude	Extracted from the [ALTITUDE(M)] field	CFM	HV_Switchgear_(GM)_Primary_GIS	[ALTITUDE(M)]	SELECT [ALTITUDE(M)] AS Altitude
HV Switchgear (GM) - Primary	M5DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	Extracted from the [CorrosionCategoryIndex] field	CFM	HV_Switchgear_(GM)_Primary_GIS	[CorrosionCategoryIndex]	SELECT [CorrosionCategoryIndex] AS CorrosionCategory
HV Switchgear (GM) - Primary	M5DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Determines situation of asset to be indoors or outdoors	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE '' END
HV Switchgear (GM) - Primary	M5DI11	SwitchgearNumberofOperations	Normal/Low,High (e.g. Auto-Reclosers)	Latest data, per asset	Determines if switchgear operations are high or normal/low	Always blank	N/A	N/A	N/A	SELECT '' as SwitchgearNumberofOperations
HV Switchgear (GM) - Primary	M5DI12	Age		Latest data, per asset	Age of asset in years	Taken as the age of housing (attributeValue for attributeName = 'HSYEARMANUF') if retrofited (attributeValue = 'Y' for attributeName = 'RETROFIT').Otherwise calculated using the current date and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6. Otherwise set Age to blank	STGDW03 (EDM)ANDSTGDW04 (NP)	Age_Profile_Data_Inst_Date_2015_6 (EDM)ANDNPL_NonCritical_Dim (NP)	inst_date (EDM)ANDattributeName (NP)ANDattributeValue (NP)	SELECT Age = CASE WHEN np.RETROFIT = 'Y' AND NP.HSEYEARMANUF is not null THEN 2015 - np.HSEYEARMANUFWHEN EDM.inst_date > '2015-04-01' then 0ELSE datediff(DD, EDM.inst_date ,'2015-04-01')/365.25END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI13	SwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the Switchgear	Based on the defects and latest condition values against the asset: If CONDHOUS = 4 OR CONDEXBUSH = 4 OR DEFECTCAB = 4 THEN 'Substantial Deterioration' If CONDBUSH = 3 or CONDHOUS = 3 OR DEFECTCOM = 4 OR DEFECTECO = 4 THEN 'Some Deterioration' If CONDBUSH = 2 or CONDHOUS = 2 THEN 'Normal Wear' If CONDBUSH = 1 and CONDHOUS = 1 THEN 'As New' Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT SwitchgearExternalCondition = CASE WHEN CONDHOUS = 4 OR CONDEXBUSH = 4 OR DEFECTCAB = 4 THEN 'Substantial Deterioration' WHEN CONDBUSH = 3 or CONDHOUS = 3 OR DEFECTCOM = 4 OR DEFECTECO = 4 THEN 'Some Deterioration' WHEN CONDBUSH = 2 or CONDHOUS = 2 THEN 'Normal Wear' WHEN CONDBUSH = 1 and CONDHOUS = 1 THEN 'As New' ELSE '' END
HV Switchgear (GM) - Primary	M5DI14	OilLeaks_GasPressure	Good,Slight Leak,Poor,Severe Leak	Latest data, per asset	Identifies the presence of an oil leak at the asset	Based on the latest condition, defects, attributes (GASCAP), and latest gas readings (CUM_VALUE): If DEFSEVOIL= 4 OR OILCONTA = 4 or SF6PRESS > 2 or CUM_Value > GASCAP THEN 'Severe Leak' If OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR DEFECTOLE = 4 or SF6PRESS = 2 THEN 'Poor' If OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 or SF6PRESS = 1 THEN 'Slight Leak' If OILCONTA = 1 OR CONDITION > 1 or SF6PRESS = 0 THEN 'Good' Blank for any other cases	REGdb AND STGDW04 AND STGDW01	APR16.Condition_Dim AND NPL_NonCritical_Dim AND MSF400	MeasureName AND MeasureValue AND CUM_VALUE AND stat_type AND STAT_DATE	SELECT cd.equip_no, cd.CUM_VALUE FROM (SELECT CD.Equip_No, MAX(CD.[STAT_DATE]) AS [MAX_STAT_DATE] FROM #AssetCategoryList ED INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on ED.Equip_NO = CD.Equip_No AND CD.[STAT_DATE] < 20160401 AND CD.stat_type = 'ST' GROUP BY CD.Equip_No) X INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on x.Equip_NO = cd.equip_no and x.[MAX_STAT_DATE] = cd.Stat_Date SELECT OilLeaks_GasPressure = CASE WHEN DEFSEVOIL= 4 OR OILCONTA = 4 or SF6PRESS > 2 or CUM_Value > GASCAP THEN 'Severe Leak' WHEN OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR DEFECTOLE = 4 or SF6PRESS = 2 THEN 'Poor' WHEN OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 or SF6PRESS = 1 THEN 'Slight Leak' WHEN OILCONTA = 1 OR CONDITION > 1 or SF6PRESS = 0 THEN 'Good' ELSE ''END
HV Switchgear (GM) - Primary	M5DI15	ThermographicAssessment	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Thermographic Assessment	Always ''	N/A	N/A	N/A	SELECT '' AS ThermographicAssessment
HV Switchgear (GM) - Primary	M5DI16	SwitchgearInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the Switchgear	Based on latest condition values and any defects:If CABLEBOX = 4 OR CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 or CONDMECH = 4 OR DEFSEVCOR = 4 or SELECTOPE = 4 or CONDBUSH = 4 THEN 'Substantial Deterioration'If CONDITION = 3 OR CONDINTER = 3 OR CONDCON = 4 OR CABLEBOX = 3 OR OPERATION = 3OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 3 or SELECTOPE = 3OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS =4 THEN 'Some Deterioration'If CONDITION = 2 OR CONDINTER = 2 OR CABLEBOX = 2 OR OPERATION = 2 THEN 'Normal Wear'If CONDITION = 1 and CONDINTER = 1 and OPERATION = 1 THEN 'As New'Blank for any other cases	STGDW04 (for defects)ANDREGdb (for condition)	DBO.Condition_Dim (for defects)ANDAPR16.Condition_Dim (for condition)	MeasureNameANDMeasureValue	SELECT SwitchgearInternalCondition_Operation = CASEWHEN CABLEBOX = 4 OR CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 or CONDMECH = 4 OR DEFSEVCOR = 4 or SELECTOPE = 4 or CONDBUSH = 4 THEN 'Substantial Deterioration'WHEN CONDITION = 3 OR CONDINTER = 3 OR CONDCON = 4 OR CABLEBOX = 3 OR OPERATION = 3OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 3 or SELECTOPE = 3OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS =4 THEN 'Some Deterioration'WHEN CONDITION = 2 OR CONDINTER = 2 OR CABLEBOX = 2 OR OPERATION = 2 THEN 'Normal Wear'WHEN CONDITION = 1 and CONDINTER = 1 and OPERATION = 1 THEN 'As New'ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI17	IndoorEnvironment	Better than Expected,As Expected,Deteriorated Environment,Severely Deteriorated Environment	Latest data, per asset	Determines the condition of the assets environment	If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 4 'Severely Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 3 'Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =2 'As Expected' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =1 'Better Than Expected' Otherwise set to blank	STGDW04 (for defects) AND REGdb (for condition)	DBO.Condition_Dim (for defects) AND APR16.Condition_Dim (for condition)	MeasureName AND MeasureValue	SELECT IndoorEnvironment = CASE WHEN CONDEXKIO = 4 OR CONSUPPOR = 4 OR DEFECTSUB = 4 OR DEFECTCCU = 4 THEN 'Severely Deteriorated Environment' WHEN CONDEXKIO = 3 OR CONSUPPOR = 3 OR DEFECTSUB = 3 OR DEFECTCCU = 3 THEN 'Deteriorated Environment' WHEN CONDEXKIO = 2 OR CONSUPPOR = 2 OR DEFECTSUB = 2 OR DEFECTCCU = 2 THEN 'As Expected' WHEN CONDEXKIO = 1 OR CONSUPPOR = 1 OR DEFECTSUB = 1 OR DEFECTCCU = 1 THEN 'Better than Expected' ELSE '' END
HV Switchgear (GM) - Primary	M5DI18	PartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	Provides information on any electrical discharge from the asset resulting from insulation breakdown or insufficiency	Based on the latest condition (p.CONDDISC) and all past conditions (dh.CONDDISC) of the asset. If p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)' If p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)' If dh.CONDDISC > 1 THEN 'Medium' If dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low' Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT PartialDischarge = CASE WHEN p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)' WHEN p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)' WHEN dh.CONDDISC > 1 THEN 'Medium' WHEN dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low' ELSE '' END
HV Switchgear (GM) - Primary	M5DI19	DuctorTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Provides information on the results of a ductor test	Based on the ductor test result which is calculated from the DUCTORREA, DUCTORREB and DUCTORREC latest condition values. When their average value is greater than 0 and their minimum value is not equal to zero then the NumericResult is set to the sum of minimum and maximum values derived by the average then mutiplied by one hundred. NumericResult is set to zero for any other cases.If the Ductor test result is above 100 '> 10% Deterioration from New'If the Ductor test result is above 20 but less than or equal to 100 'Up to 10% Deterioration from New'If the Ductor test result is above 0 but less than or equal to 20 'As New' . Otherwise leave blank	REGdb	APR16.Condition_Dim	MeasureNameANDMeasureValue	SELECT b.EQUIPNO, DuctorTest = CASEWHEN b.NumericResult > 100 THEN '> 10% Deterioration from New'WHEN b.NumericResult > 20 AND b.NumericResult <= 100 THEN 'Up to 10% Deterioration from New'WHEN b.NumericResult > 0 AND b.NumericResult <= 20 THEN 'As New'ELSE '' ENDINTO #DuctorTestFROM (SELECT EQUIPNO, CASE WHEN AVG(MeasureValue) > 0 AND MIN(MeasureValue) <> 0 THEN ((MAX(MeasureValue) - MIN(MeasureValue)) / AVG(MeasureValue)) * 100 ELSE 0 END AS NumericResult FROM (SELECT EQUIPNO, MeasureName, MeasureValue FROM (SELECT EQUIPNO, DUCTORREA, DUCTORREB, DUCTORREC FROM #PivotCond) p UNPIVOT (MeasureValue FOR MeasureName IN (DUCTORREA, DUCTORREB, DUCTORREC)) AS unpvt) a group by a.EquipNo) b
HV Switchgear (GM) - Primary	M5DI20	IRTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	IR Test	Always ''	N/A	N/A	N/A	SELECT '' AS IRTest
HV Switchgear (GM) - Primary	M5DI21	OilTests	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Converts output of oil testing into qualitative descripton	125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue <= 50 'As New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue is between 51 and 500 'Up to 10% Deterioration from New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue > 500 ' 10% Deterioration from New', If AcidityValue, MoistureValue or BreakdownValue = '' leave blank	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	See Appendix 4
HV Switchgear (GM) - Primary	M5DI22	Temperature Readings	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Temperature reading for asset	If DEFECTTEM = 4 'Substantially Above Ambient' If DEFECTTEM = 1 'Ambient or Below' Otherwise 'Ambient or Below'	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT TemperatureReading = CASE WHEN DEFECTTEM = 4 THEN 'Substantially Above Ambient' WHEN DEFECTTEM = 1 THEN 'Ambient or Below' ELSE 'Ambient or Below' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI23	TripTest	Fail,Pass	Latest data, per asset	Reports pass fail for trip testing	Based on the latest condition measure of the TRIPVALU1 and the trip time of the switchgear (Value). If TRIPVALU1 is equal or greater than 10 AND less or equal to the Value /2then 'PASS' If TRIPVALU1 is equal or greater than 10 AND greater than Value/2 then 'FAIL' Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT TripTest = CASE WHEN TRIPVALU1 >= 10 AND TRIPVALU1 <= stt.Value/2 THEN 'Pass' WHEN TRIPVALU1 >= 10 AND TRIPVALU1 > stt.Value/2 THEN 'Fail' ELSE '' END
HV Switchgear (GM) - Primary	M5DI24	ReliabilityFactorInput		Latest data, per asset	Modifier applied to Health Score based on specific knowledge of asset	Based on the CBReliability field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	CBReliability	SELECT [CBReliability] as ReliabilityFactorInput
HV Switchgear (GM) - Primary	M5DI25	ReliabilityCollarInput		Latest data, per asset	Minimum health score used as an overide	Based on the ReliabilityCollar field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	ReliabilityCollar	SELECT [ReliabilityCollar] as ReliabilityCollarInput
HV Switchgear (GM) - Primary	M5DI26	NoOfUnits		Latest data, per asset	Number of units per record	1 per record	N/A	N/A	N/A	SELECT 1 AS NoOfUnits
HV Switchgear (GM) - Primary	M5DI27	TypeSafetyRating	Low,Medium,High	Latest data, per asset	Provides the safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESCEquipRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESCEquipRisk	SELECT TypeSafetyRating = Case WHEN ESCEquipRisk = '1 - LOW' THEN 'Low' WHEN ESCEquipRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESCEquipRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
HV Switchgear (GM) - Primary	M5DI28	LocationSafetyRating	Low,Medium,High	Latest data, per asset	Provides the locational safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESQCLocationRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESQCLocationRisk	SELECT LocationSafetyRating = CASE WHEN ESQCLocationRisk = '1 - LOW' THEN 'Low' WHEN ESQCLocationRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESQCLocationRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
HV Switchgear (GM) - Primary	M5DI29	TypeEnvironmentRating	Oil,Neither,SF6	Latest data, per asset	Environment rating	Based on the AttributeValue against the AttributeName equal to "INSULATION": If AttributeValue = 'SF6 GAS' THEN 'SF6' If AttributeValue = 'Oil' Then 'Oil' If AttributeValue = Air or AttributeValue = Resin then 'Neither' Otherwise leave blank	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT TypeEnvironmentRating = CASE WHEN INSULATION = 'SF6 GAS' THEN 'SF6' WHEN INSULATION = 'Oil' THEN 'Oil' WHEN INSULATION IN ('Air', 'Resin') THEN 'Neither' ELSE '' END

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI 30	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	Proximity to water	Based on the type of insulation (AttributeValue against AttributeName equal to "INSULATION") and the values from the [PROXIMITYRATING(M)] field: If INSULATION is different to "Oil" then "Not Close to Water Course (>120m) or No Oil" If INSULATION is null then blank If [PROXIMITYRATING(M)] is greater than 120 then "Not Close to Water Course (>120m) or No Oil" If [PROXIMITYRATING(M)] is between 80 and 120 then "Moderately Close to Water Course (between 80m and 120m)" If [PROXIMITYRATING(M)] is greater or equal to 40 and less than 80 then "Close to Water Course (between 40m and 80m)" If [PROXIMITYRATING(M)] is less than 40 then "Very Close to Water Course (<40m)" Blank for any other cases	STGDW04 AND CFM	NPL_NonCritical_Dim AND HV_Switchgear_(GM)_Primary_GIS	AttributeValue AND [PROXIMITYRATING(M)]	SELECT ProximityRating = CASE When INSULATION <> 'Oil' then 'Not Close to Water Course (>120m) or No Oil' When INSULATION is NUll then '' When [PROXIMITYRATING(M)]>120 then 'Not Close to Water Course (>120m) or No Oil' When [PROXIMITYRATING(M)]<=120 AND [PROXIMITYRATING(M)]>=80 then 'Moderately Close to Water Course (between 80m and 120m)' When [PROXIMITYRATING(M)]<80 AND [PROXIMITYRATING(M)]>=40 then'Close to Water Course (between 40m and 80m)' When [PROXIMITYRATING(M)]<40 then'Very Close to Water Course (<40m)' Else '' End
HV Switchgear (GM) - Primary	M5DI 31	NumberofConnectedCustomers		Latest data, per asset	Number of customers served by the asset	Based on the [Number of Customers] field from the Load table	CFM	HV_Switchgear_(GM)_Primary_Load	[Number of Customers]	SELECT [Number of Customers] as NumberofConnectedCustomers
HV Switchgear (GM) - Primary	M5DI 32	CustomerSensitivityFactor		Latest data, per asset	Customer Sensitivity Factor	Always ''	N/A	N/A	N/A	SELECT '' AS CustomerSensitivityFactor
HV Switchgear (GM) - Primary	M5DI 33	KVABandPerCustomer	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	KVA Band Per Customer	Based on the [Max Demand Load] and [Max Demand Load] fields from the Load table: If [Max Demand Load]*1000/NULLIF([Number of Customers],0) < 50 then '<50' If [Max Demand Load]*1000/NULLIF([Number of Customers],0) <100 then '>=50 and <100' If [Max Demand Load]*1000/NULLIF([Number of Customers],0) <500 then '>=100 and <500' If [Max Demand Load]*1000/NULLIF([Number of Customers],0) <1000 then '>=500 and <1000' If [Max Demand Load]*1000/NULLIF([Number of Customers],0) <2000 then '>=1000 and <2000' If [Max Demand Load]*1000/NULLIF([Number of Customers],0) >=2000 then '>=2000' Blank for any other cases	CFM	HV_Switchgear_(GM)_Primary_Load	[Max Demand Load] AND [Max Demand Load]	SELECT KVABandPerCustomer = CASE WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) < 50 then '<50' WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) <100 then '>=50 and <100' WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) <500 then '>=100 and <500' WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) <1000 then '>=500 and <1000' WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) <2000 then '>=1000 and <2000' WHEN [Max Demand Load]*1000/NULLIF([Number of Customers],0) >=2000 then '>=2000' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Primary	M5DI34	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	Determine access condition of asset	If EquipSituation is 'Outdoor' or 'GRP' or ConfinedSpace is 'Type A Confined Space' or 'No Confined Space' the access rating is 'Type A Criteria - Normal Access'. If ConfinedSpace is 'Type B (24 Hours)' or 'Type B (Out Of Hours)' the access rating is 'Type B Criteria - Constrained/Confined'. If ConfinedSpace is 'Type C Confined Space' then the access rating is 'Type C Criteria - Underground'. otherwise blank	STGDW04	Equip_Dim and Location_Dim	EquipSituation and ConfinedSpace	SELECT AccessFinancialRating = CASE WHEN EquipSituation IN ('Outdoor', 'GRP') OR ConfinedSpace IN ('Type A Confined Space', 'No Confined Space') THEN 'Type A Criteria - Normal Access' WHEN ConfinedSpace IN ('Type B (24 Hours)', 'Type B (Out Of Hours)') THEN 'Type B Criteria - Constrained/Confined' WHEN ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' ELSE '' END
HV Switchgear (GM) - Primary	M5DI35	Bunding	Bunded,Not Bunded	Latest data, per asset	Determines if the asset is not bunded	Determine if bunding exists for the selected asset classes	STGDW04	Equip_Dim	EqipClass, EquipStatus	SELECT DISTINCT EDM.EQUIP_NO, Bunding = 'Bunded' FROM (SELECT EDM.EQUIP_NO, EQUIP_GRP_ID, EDM.DNO, EDM.Inst_date, EDM.ED1_ROW FROM STGDW03.RRP.Age_Profile_Data_Inst_Date_2015_6 EDM WHERE EDM.ed1_ROW IN ('056', '064')) EDM INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] ED ON EDM.EQUIP_NO = ED.EquipNo and ED.IsRowCurrent = 1 INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] BD ON ED.SiteNo = BD.SiteNo and ed.DstrctCode = BD.DstrctCode AND BD.EquipClass = 'BN' AND BD.IsRowCurrent = 1
HV Switchgear (GM) - Primary	M5DI36	ReplacedMovingPortion	Yes,No	Latest data, per asset	Determines if the moving portion of the switchgear has been replaced	If AttributeValue =Y then 'Yes', if AttributeValue = N then 'No'	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT ReplacedMovingPortion = CASE WHEN AttributeValue = 'Y' THEN 'YES' WHEN AttributeValue = 'N' THEN 'NO' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Distribution	M6DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT EquipNo AS AssetID
HV Switchgear (GM) - Distribution	M6DI2	SiteName		Latest data, per asset	Name of the site location of the asset	Extracted from the Sitename field in the Equip_Dim table	STGDW04	EQUIP_DIM	AreaNo AND SiteName	SELECT replace(AreaNo + '-'+SiteName, ',', ' ') AS SiteName
HV Switchgear (GM) - Distribution	M6DI3	AssetName		Latest data, per asset	The manufacturer and model names of the asset	Created by concatenating the Manufacturer name and model with a dash in-between	STGDW04	EQUIP_DIM	AssetName	SELECT REPLACE(AssetName,',', ' ') AS AssetName
HV Switchgear (GM) - Distribution	M6DI4	Manufacturer_Model		Latest data, per asset	Specifies whether the asset is located indoor or outdoor	Extracted from the EquipmentSituation field in the Equip_Dim table	STGDW04	EQUIP_DIM	Manufacturer AND ManufModel	SELECT Manufacturer + '-' + ManufModel AS Manufacturer_Model
HV Switchgear (GM) - Distribution	M6DI5	HealthIndexAssetCategory	HV Switchgear (GM) - Distribution	Latest data, per asset	CNAIM Health Index Asset Category	Always 'HV Switchgear (GM) - Distribution'	N/A	N/A	N/A	Select 'HV Switchgear (GM) - Distribution' AS HealthIndexAssetCategory
HV Switchgear (GM) - Distribution	M6DI6	AssetRegisterCategory	6.6/11kV CB (GM) Secondary,20kV RMU,6.6/11kV RMU,6.6/11kV X-type RMU,6.6/11kV Switch (GM),20kV CB (GM) Secondary,20kV Switch (GM)	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row '057' '6.6/11kV CB (GM) Secondary' '061' THEN '6.6/11kV RMU' '062' THEN '6.6/11kV X-type RMU' '065' THEN '20kV CB (GM) Secondary' '069' THEN '20kv RMU' '068' THEN '20kV Switch (GM)' '060' THEN '6.6/11kV Switch (GM)' END	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '057' THEN '6.6/11kV CB (GM) Secondary' WHEN [ED1_Row] = '061' THEN '6.6/11kV RMU' WHEN [ED1_Row] = '062' THEN '6.6/11kV X-type RMU' WHEN [ED1_Row] = '060' THEN '6.6/11kV Switch (GM)' WHEN [ED1_Row] = '065' THEN '20kV CB (GM) Secondary' WHEN [ED1_Row] = '069' THEN '20kV RMU' WHEN [ED1_Row] = '068' THEN '20kV Switch (GM)' ELSE 'ERROR' END
HV Switchgear (GM) - Distribution	M6DI7	DistanceFromCoast		Latest data, per asset	Distance from coast to asset	Distance from coast to asset	CFM	HV_Switchgear_(GM)_Distribution_GIS	DISTANCEFROMCOAST(KM)	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
HV Switchgear (GM) - Distribution	M6DI8	Altitude		Latest data, per asset	Altitude	Extracted from the [ALTITUDE(M)] field	CFM	HV_Switchgear_(GM)_Distribution_GIS	ALTITUDE(M)	SELECT [ALTITUDE(M)] AS Altitude
HV Switchgear (GM) - Distribution	M6DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	Extracted from the [CorrosionCategoryIndex] field	CFM	HV_Switchgear_(GM)_Distribution_GIS	CorrosionCategoryIndex	SELECT [CorrosionCategoryIndex] AS CorrosionCategory
HV Switchgear (GM) - Distribution	M6DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Determines situation of asset to be indoors or outdoors	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Distribution	M6DI11	Age		Latest data, per asset	Calculated Age from Calendar year as recorded in Age_Profile_Data_Inst_Date_2015_6	Calculate the age in years from the current date and the inst_date field in Age_Profile_Data_Inst_Date_2015_6 Otherwise set Age to blank	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	Age = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END
HV Switchgear (GM) - Distribution	M6DI12	SwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the Switchgear	When both CONDCONTB and CABLEBOX = 4 or CONDHOUS = 4 'Substantial Deterioration', When either CONDHOUS = 3 or CONDCONTB is greater than 2 or CABLEBOX is greater than 2 or DEFECTCOM = 4 or DEFECTCAB = 4 or P.DEFECTECO = 4 'Some Deterioration',WHEN CONDHOUS = 2 or CONDCONTB = 2 or CABLEBOX = 2 'Normal Wear',if CONDHOUS = 1 'As New' otherwise set to blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDCONTB and CABLEBOX and CONDHOUS and DEFECTCOM and DEFECTCAB and DEFECTECO	SELECT SwitchgearExternalCondition = CASE WHEN (CONDCONTB = 4 AND CABLEBOX = 4) OR CONDHOUS = 4 THEN 'Substantial Deterioration' WHEN CONDHOUS = 3 OR CONDCONTB > 2 OR CABLEBOX > 2 OR DEFECTCOM = 4 OR DEFECTCAB = 4 OR DEFECTECO = 4 THEN 'Some Deterioration' WHEN CONDHOUS = 2 OR CONDCONTB = 2 OR CABLEBOX = 2 THEN 'Normal Wear' WHEN CONDHOUS = 1 THEN 'As New' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI13	OilLeaks_GasPressure	Good,Slight Leak,Poor,Severe Leak	Latest data, per asset	Identifies the presence of an oil leak at the asset	OILCONTA = 4 'Severe Leak' OILCONTA = 3 or any of DEFECTGSK, DEFECTSITor DEFECTOLE = 4 'Poor' OILCONTA = 2 OR DEFECTCOM > 1 'Slight Leak' Otherwise default to 'Good'	REGdb	APR16.Condition_Dim	MeasureName AS OILCONTA and DEFECTCOM and DEFECTGSK and DEFECTSIT and DEFECTOLE	SELECT OilLeaks_GasPressure = CASE WHEN OILCONTA = 4 THEN 'Severe Leak' WHEN OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR DEFECTOLE = 4 THEN 'Poor' WHEN OILCONTA = 2 OR DEFECTCOM > 1 THEN 'Slight Leak' ELSE 'Good' END
HV Switchgear (GM) - Distribution	M6DI14	ThermographicAssessment	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Thermographic Assessment	Always blank	N/A	N/A	N/A	SELECT '' AS ThermographicAssessment
HV Switchgear (GM) - Distribution	M6DI15	SwitchgearInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the Switchgear	If either CONDITION or CONDINTER = 4 'Substantial Deterioration' If either CONDITION or CONDINTER = 3 or any of DEFSEVCOR, CONDCON, DEFSWIRE, CONDCON, DEFECTSHU, CONDCB, SMALLWIRI, DEFECTWEA, WEARGUAGE, CONDMECH, MECHWEAR, FUSECARRI, SHUTTERS = 4 'Some Deterioration' If CONDITION or CONDINTER = 2 'Normal Wear' If CONDITION orCONDINTER = 1 'As New' otherwise set to blank	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT SwitchgearInternalCondition_Operation = CASE WHEN CONDITION = 4 OR CONDINTER = 4 THEN 'Substantial Deterioration' WHEN CONDITION = 3 OR CONDINTER = 3 OR DEFSEVCOR = 4 OR CONDCON = 4 OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 4 OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS =4 THEN 'Some Deterioration' WHEN CONDITION = 2 OR CONDINTER = 2 THEN 'Normal Wear' WHEN CONDITION = 1 OR CONDINTER = 1 THEN 'As New' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI16	IndoorEnvironment	Better than Expected,As Expected,Deteriorated Environment,Severely Deteriorated Environment	Latest data, per asset	Determines the condition of the assets environment	If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 4 'Severely Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 3 'Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =2 'As Expected' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =1 'Better Than Expected' Otherwise set to blank	REGdb	APR16.Condition_Dim	MeasureName AS CONDEXKIO and CONSUPPOR and DEFECTSUB and DEFECTCCU	SELECT IndoorEnvironment = CASE WHEN CONDEXKIO = 4 OR CONSUPPOR = 4 OR DEFECTSUB = 4 OR DEFECTCCU = 4 THEN 'Severely Deteriorated Environment' WHEN CONDEXKIO = 3 OR CONSUPPOR = 3 OR DEFECTSUB = 3 OR DEFECTCCU = 3 THEN 'Deteriorated Environment' WHEN CONDEXKIO = 2 OR CONSUPPOR = 2 OR DEFECTSUB = 2 OR DEFECTCCU = 2 THEN 'As Expected' WHEN CONDEXKIO = 1 OR CONSUPPOR = 1 OR DEFECTSUB = 1 OR DEFECTCCU = 1 THEN 'Better Than Expected' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Distribution	M6DI17	PartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	Provides information on any electrical discharge from the asset resulting from insulation breakdown or insufficiency	Based on current condition (p.CONDDISC) and any past condition values that were equal to 4 (dh.CONDDISC) of the CONDDISC parameter (MeasureName = 'CONDDISC'):If p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)'If p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)'If dh.CONDDISC > 1 THEN 'Medium'If dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low'Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureNameANDMeasureValue	SELECT PartialDischarge = CASEWHEN p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)'WHEN p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)'WHEN dh.CONDDISC > 1 THEN 'Medium'WHEN dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low'ELSE '' END
HV Switchgear (GM) - Distribution	M6DI18	DuctorTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Provides information on the results of a ductor test	Based on the ductor test result which is calculated from the DUCTORREA, DUCTORREB and DUCTORREC latest condition values. When their average value is greater than 0 and their minimum value is not equal to zero then the NumericResult is set to the range between minimum and maximum values (i.e. Max-Min) then divided by the average then mutiplied by one hundred. NumericResult is set to zero for any other cases. If the Ductor test result is above 100 '> 10% Deterioration from New' If the Ductor test result is above 20 but less than or equal to 100 'Up to 10% Deterioration from New' If the Ductor test result is above 0 but less than or equal to 20 'As New' . Otherwise leave blank	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT DuctorTest = CASE WHEN NumericResult > 100 THEN '> 10% Deterioration from New' WHEN NumericResult > 20 AND NumericResult <= 100 THEN 'Up to 10% Deterioration from New' WHEN NumericResult > 0 AND NumericResult <= 20 THEN 'As New' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI19	OilTests	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Converts output of oil testing into qualitative descripton	125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue <= 50 'As New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue is between 51 and 500 'Up to 10% Deterioration from New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue > 500 ' 10% Deterioration from New', If AcidityValue, MoistureValue or BreakdownValue = '' leave blank	REGdb	APR16.Condition_Dim	MeasureName As OILACIDNE and OILACIDOL and OILMOISNE and OILMOISOL and OILSTRENE and OILSTREOL and OILDGAACI and OILDGAMOI and OILDGABRE	See Appendix 4
HV Switchgear (GM) - Distribution	M6DI20	Temperature Readings	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Temperature reading for asset	If DEFECTTEM = 4 'Substantially Above Ambient' If DEFECTTEM = 1 'Ambient or Below' Otherwise ''	REGdb	APR16.Condition_Dim	MeasureName As DEFECTTEM	SELECT TemperatureReadings = CASE WHEN DEFECTTEM = 4 THEN 'Substantially Above Ambient' WHEN DEFECTTEM = 1 THEN 'Ambient or Below' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI21	TripTest	Fail,Pass	Latest data, per asset	Reports pass fail for trip testing	Based on the latest condition measure of the TRIPVALU2 and the trip time of the switchgear (Value). If TRIPVALU2 is equal or greater than 10 AND less or equal to the Value then 'PASS' If TRIPVALU2 is equal or greater than 10 AND greater than Value then 'FAIL' Blank for any other cases	REGdb (for TRIPVALU2) AND CFM	APR16.Condition_Dim (for TRIPVALU2) AND DBO.SwitchgearTripTime	MeasureValue (for TRIPVALU2) AND Value	SELECT TripTest = CASE WHEN TRIPVALU2 >= 10 AND TRIPVALU2 <= Value THEN 'Pass' WHEN TRIPVALU2 >= 10 AND TRIPVALU2 > Value THEN 'Fail' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI22	ReliabilityFactorInput		Latest data, per asset	Modifier applied to Health Score based on specific knowledge of asset	Based on the CBReliability field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	CBReliability	SELECT [CBReliability] as ReliabilityFactorInput
HV Switchgear (GM) - Distribution	M6DI23	ReliabilityCollarInput		Latest data, per asset	Minimum health score used as an overide	Based on the ReliabilityCollar field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	ReliabilityCollar	SELECT [ReliabilityCollar] as ReliabilityCollarInput

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Distribution	M6DI24	NoOfUnits		Latest data, per asset	Number of units per record	1 per record	N/A	N/A	N/A	SELECT 1 AS NoOfUnits
HV Switchgear (GM) - Distribution	M6DI25	TypeSafetyRating	Low,Medium,High	Latest data, per asset	Provides the safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESCEquipRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESCEquipRisk	SELECT TypeSafetyRating = Case WHEN ESCEquipRisk = '1 - LOW' THEN 'Low' WHEN ESCEquipRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESCEquipRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI26	LocationSafetyRating	Low,Medium,High	Latest data, per asset	Provides the locational safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESQCLocationRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESQCLocationRisk	SELECT LocationSafetyRating = CASE WHEN ESQCLocationRisk = '1 - LOW' THEN 'Low' WHEN ESQCLocationRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESQCLocationRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI27	TypeEnvironmentRating	Oil,Neither,SF6	Latest data, per asset	Environment rating	Based on the AttributeValue against the AttributeName equal to "INSULATION": If AttributeValue = 'SF6 GAS' THEN 'SF6' If AttributeValue = 'Oil' Then 'Oil' If AttributeValue = 'Air' or AttributeValue = 'Resin' then 'Neither' Otherwise leave blank	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT TypeEnvironmentRating = CASE WHEN INSULATION = 'SF6 GAS' THEN 'SF6' WHEN INSULATION = 'Oil' THEN 'Oil' WHEN INSULATION IN ('Air', 'Resin') THEN 'Neither' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI28	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	Proximity to water	Based on the type of insulation (AttributeValue against AttributeName equal to "INSULATION") and the values from the [PROXIMITYRATING(M)] field: If INSULATION is different to "Oil" then "Not Close to Water Course (>120m) or No Oil" If INSULATION is null then blank If [PROXIMITYRATING(M)] is greater than 120 then "Not Close to Water Course (>120m) or No Oil" If [PROXIMITYRATING(M)] is between 80 and 120 then "Moderately Close to Water Course (between 80m and 120m)" If [PROXIMITYRATING(M)] is greater or equal to 40 and less than 80 then "Close to Water Course (between 40m and 80m)" If [PROXIMITYRATING(M)] is less than 40 then "Very Close to Water Course (<40m)" Blank for any other cases	STGDW04 AND CFM	NPL_NonCritical_Dim AND HV_Switchgear_(GM)_Distribution_GIS	AttributeValue AND [PROXIMITYRATING(M)]	SELECT ProximityRating = CASE When INSULATION <> 'Oil' then 'Not Close to Water Course (>120m) or No Oil' When INSULATION is NUll then '' When [PROXIMITYRATING(M)]>120 then 'Not Close to Water Course (>120m) or No Oil' When [PROXIMITYRATING(M)]<=120 AND [PROXIMITYRATING(M)]>=80 then 'Moderately Close to Water Course (between 80m and 120m)' When [PROXIMITYRATING(M)]<80 AND [PROXIMITYRATING(M)]>=40 then'Close to Water Course (between 40m and 80m)' When [PROXIMITYRATING(M)]<40 then'Very Close to Water Course (<40m)' Else '' End
HV Switchgear (GM) - Distribution	M6DI29	NumberofConnectedCustomers		Latest data, per asset	Number of customers served by the asset	Extracted from the [Number of Customers] field	CFM	HV_Switchgear_(GM)_Distribution_Load	[Number of Customers]	SELECT [Number of Customers] as NumberofConnectedCustomers
HV Switchgear (GM) - Distribution	M6DI30	CustomerSensitivityFactor		Latest data, per asset	Customer Sensitivity Factor	Always blank	N/A	N/A	N/A	SELECT '' AS CustomerSensitivityFactor
HV Switchgear (GM) - Distribution	M6DI31	KVABandPerCustomer	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	KVA Band Per Customer	Always blank	N/A	N/A	N/A	SELECT '' AS KVABandPerCustomer

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Switchgear (GM) - Distribution	M6DI32	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	Determine access condition of asset	If EquipSituation is 'Outdoor' or 'GRP' or ConfinedSpace is 'Type A Confined Space' or 'No Confined Space' the access rating is 'Type A Criteria - Normal Access'. If ConfinedSpace is 'Type B (24 Hours)' or 'Type B (Out Of Hours)' the access rating is 'Type B Criteria - Constrained/Confined'. If ConfinedSpace is 'Type C Confined Space' then the access rating is 'Type C Criteria - Underground'. otherwise blank	STGDW04	Equip_Dim and Location_Dim	EquipSituation and ConfinedSpace	SELECT AccessFinancialRating = CASE WHEN EquipSituation IN ('Outdoor', 'GRP') OR ConfinedSpace IN ('Type A Confined Space', 'No Confined Space') THEN 'Type A Criteria - Normal Access' WHEN ConfinedSpace IN ('Type B (24 Hours)', 'Type B (Out Of Hours)') THEN 'Type B Criteria - Constrained/Confined' WHEN ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' ELSE '' END
HV Switchgear (GM) - Distribution	M6DI33	Bunding	Bunded,Not Bunded	Latest data, per asset	Determines if the asset is not bunded	Determine if bunding exists for the selected asset classes	STGDW04	Equip_Dim	EQUIP_NO AND IsRowCurrent AND SiteNo AND DstrctCode AND EquipClass	IF OBJECT_ID('tempdb.dbo.#AssetCategoryList', 'U') IS NOT NULL DROP TABLE #AssetCategoryList SELECT EDM.EQUIP_NO, EDM.DNO, EDM.EQUIP_GRP_ID, EDM.Inst_date, EDM.[ED1_Row] INTO #AssetCategoryList FROM STGDW03.RRP.Age_Profile_Data_Inst_Date_2015_6 EDM WHERE EDM.[ED1_Row] IN ('057', '061','062', '065','068', '069', '060') SELECT DISTINCT EDM.EQUIP_NO, Bunding = CASE WHEN EDM.Equip_NO IS Not NULL THEN 'Bunded' ELSE 'Not Bunded' END FROM #AssetCategoryList EDM INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] ED ON EDM.EQUIP_NO = ED.EquipNo and ED.IsRowCurrent = 1 INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] BD ON ED.SiteNo = BD.SiteNo and ed.DstrctCode = BD.DstrctCode AND BD.EquipClass = 'BN' AND BD.IsRowCurrent = 1
HV Switchgear (GM) - Distribution	M6DI34	ReplacedMovingPortion	Yes,No	Latest data, per asset	Determines if the moving portion of the switchgear has been replaced	Based on AttributeValue corresponding to attributeName = "RETROFIT": If RETROFIT = 'Y' THEN 'Yes' If RETROFIT = 'N' THEN 'No' Blank for any other cases	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT ReplacedMovingPortion = CASE WHEN RETROFIT = 'Y' THEN 'Yes' WHEN RETROFIT = 'N' THEN 'No' ELSE '' END

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Transformer GM	M7DI 1	AssetID		Latest data, per asset	AssetID	Represented by the asset register asset identification number only where the asset is in the regulatory Age profile for the relevant Annuial return (e.g. 2014/15 or 2015/16)	STGDW03	Age_Profile_Data_Inst_Date_2014_5	Equip_No	SELECT EquipNo AS AssetID **NOTE** EQUIP_NO '000001240999' is specifically excluded although it is in the 2014/15 age profile it has been physically deleted from Elipse (it is still in the 2014/15 AgeProfile and has no "current" row in BI thereofore unable to calculate age) (it is not in the 2015/16Age profile so does not need to be excluded in that extract)
HV Transformer GM	M7DI 2	SiteName		Latest data, per asset	SiteName	Name of the Site and the DNO	STGDW04	EQUIP_DIM + Age_Profile_Data_Inst_Date_2015_6	Equipdim SiteNo + AgeProfile DNO	eqd.Sitename + ' ' + edd.DNO AS SiteName
HV Transformer GM	M7DI 3	OpVolts_EquipmentType		Latest data, per asset	OpVolts_EquipmentType	The OPVOLTS should be in the OPVOLTs Field however if the Asset has been reclassified since the inclusion the relvant age profile the OPVOLTS may be in the Primary Winding Voltage 1 field . Thisis appened with the EGI if it is not NULL	STGDW04	EQUIP_DIM and Noncritical Dim if necessary	OPVOLTS (or Attribute = "PWV1") and EGI	OpVolts_EquipmentType = Case when eqd.equipclass in ('DT', 'TX') then isnull(ncd1.attributevalue,'No OPVOLTS') + ' ' + isnull(eqd.EquipmentTypeDesc,'NO EQTYPE') +' '+ isnull(eqd.EQuipclass,'NoCLASS') when eqd.equipclass <> 'DT' then isnull(eqd.OPVOLTS,'No OPVOLTS') + ' ' + isnull(eqd.EquipGrpIdDesc,'NO EGI') +' '+ isnull(eqd.EQuipclass,'NoCLASS') else '' End,
HV Transformer GM	M7DI 4	PlantNo.		Latest data, per asset	PlantNo.	Plant Number associated to HV TX	STGDW04	Equip_DIM	Plantno	eqd.Plantno AS PlantNo,
HV Transformer GM	M7DI 5	HealthIndex AssetCategory	HV Transformer (GM)	Latest data, per asset	HealthIndexAssetCategory	Always 'HV Transformer (GM)' AS HealthIndexAssetCategory, where Age profile Ofgem_Row in ('050','048') for 2014/15 age profile	RegDB	Age_Profile_Data_Inst_Date_2014_5	Ofgem_row	HV Transformer (GM)' AS HealthIndexAssetCategory, where Age profile Ofgem_Row in ('050','048')
HV Transformer GM	M7DI 6	AssetRegisterCategory	6.6/11kV Transformer (GM),20kV Transformer (GM)	Latest data, per asset	AssetRegisterCategory	Based Ofgem Row 48 = '6.6/11kV Transformer (GM)' 50 = '20kV Transformer (GM) However to deal with reclassified assets that have been corrected in the interviening 2 years or that that are named specifically the Logic based on Voltage will check opvolts or PWV1 if opvolts is not avilable	STGDW04	Equipdim & NonCriticalDIM	Ofgem row, or Where attributename = PWV1 (Primary winding Voltage 1)	when edd.ofgem_row = '048' then '6.6/11kV Transformer (GM)' When edd.ofgem_row = '050' then '20kV Transformer (GM)' when ncd1.attributevalue = '6.6kV' then '6.6/11kV Transformer (GM)' when ncd1.attributevalue = '11kV' then '6.6/11kV Transformer (GM)' when ncd1.attributevalue = '20kv' then '20kV Transformer (GM)' when ncd1.attributevalue is null and Eqd.Opvolts = '6.6kV' then '6.6/11kV Transformer (GM)' when ncd1.attributevalue is null and Eqd.Opvolts = '66kV' then '6.6/11kV Transformer (GM)' when ncd1.attributevalue is null and Eqd.Opvolts = '20kV' then '20kV Transformer (GM)' Else ncd1.attributevalue End,
HV Transformer GM	M7DI 7	DistanceFromCoast		Latest data, per asset	DistanceFromCoast	Distance from coast to asset	Alfresoc External Excel File	Alfrsco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
HV Transformer GM	M7DI 8	Altitude		Latest data, per asset	Altitude	From External list created by TCS Lookup on Equipment ID	Alfresoc External Excel File	Alfrsco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	within SQL it is (SELECT '' AS Altitude) to give blank space
HV Transformer GM	M7DI 9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	From External list created by TCS Lookup on Equipment ID	Alfresoc External Excel File	Alfrsco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT '' AS CorrosionCategory
HV Transformer GM	M7DI 10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Indoor_Outdoor	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	Indoor_Outdoor = CASE WHEN eqd.EquipSituation = 'Indoor - Not Sites' THEN 'Indoor' WHEN eqd.EquipSituation is NULL THEN '' ELSE 'Outdoor' END,
HV Transformer GM	M7DI 11	Utilisation		Latest data, per asset	Utilisation	The TXLOAD for the Equipment/ONANRATING for the equipment	STGDW04	Transformer count per site & ONAN rating from Noncritical DIM	TXLOAD, ONANRATING	Utilisation = case when ptxc.TXLOAD <> 0 and ptxc.TXLOAD is not NULL and ncd2.attributevalue is not NUll and ncd2.attributevalue <> 0 then cast (ptxc.TXLOAD/ncd2.attributevalue as Varchar) Else '' End,

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Transformer GM	M7DI 12	Age		Latest data, per asset	Age	Calculate the age in years from the end of relavant period and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6 otherwise use Comm date (AGE CAN NOT BE blank)	STGDW04	Age_Profile_Data_Inst_Date_2015_6 or EquipDIm if Instdate is NULL	Inst date /Commdate	Age = Case when edd.inst_date is NUll then ISNULL(CAST (datediff(DD,(convert (char (8),eqd.commdate, 111)),GetDate())/365.25 as float), '') else cast (datediff(DD, edd.inst_date ,'2016-04-01')/365.25 as float) end,
HV Transformer GM	M7DI 13	Transformer ExternalCon dition	As New,Good,Slight Deterioration,Poor,Very Poor	Latest data, per asset	TransformerExternalCondition	Very Poor if there is a severe Oil leak (Defect or condition 4 Oil containment) or Compond Leak Otherwise if there is Both a Condition 4 for Housing and another Poor condition (Internal,Oilcontainment,Condof Fuse, Leads) Or an oustanding defect on the (Leads,Cable,Gasket,Sever corrosion or tapchanger) then it will be "Very Poor" Otherwise if any Condition measure alone is poor then "POOR" If there are no Poor condtion measures but an Outstanding defect then "Slight deterioration" If there are no poor condition measures (>1) or outstanding defects and any condition measures are 1 then "As New" Else BLANK	STGDW04	Condition_Dim		TransformerExternalCondition' = Case When ptxc.DEFSEVCOM = 4 then 'Very Poor' When ptxc.DEFSEVOIL = 4 then 'Very Poor' When ptxc.OILCONTA = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.OILCONTA = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.CONDINTER = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.CONDFUSE >2 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.CONDLEAD >2 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTLEA = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTCAB = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTGSK = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFSEVCOR = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTINS = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTINS = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 and ptxc.DEFECTTAP = 4 then 'Very Poor' When ptxc.CONDHOUS = 4 or ptxc.OILCONTA = 3 or ptxc.CONDINTER = 4 or ptxc.DEFSEVCOR = 4 or ptxc.DEFECTLEA = 4 then 'Poor' When ptxc.CONDHOUS = 3 or ptxc.OILCONTA = 2 or ptxc.CONDINTER = 3 or ptxc.CONDFUSE >2 or ptxc.CONDLEAD >2 or ptxc.DEFECTCOM = 4 or ptxc.DEFECTCAB = 4 or ptxc.DEFECTGSK = 4 or ptxc.DEFECTINS = 4 or ptxc.DEFSEVCOM = 4 or ptxc.DEFECTTAP = 4 then 'Slight Deterioration' When ptxc.CONDHOUS = 2 or ptxc.CONDINTER = 2 or ptxc.CONDFUSE = 2 or ptxc.CONDLEAD = 2 then 'Good' When ptxc.CONDHOUS = 1 or ptxc.OILCONTA = 1 or ptxc.CONDINTER = 1 or ptxc.CONDFUSE = 1 or ptxc.CONDLEAD = 1 then 'As New' When ptxc.CONDHOUS = 0 then '' Else '' End,

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Transformer GM	M7DI 14	PartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	PartialDischarge	For the Transformer equipment item where there is an Outstanding CONDDISC defect then the value is at least "High Not Confirmed " but if additionally the Count of count of the "CONDDISC" measure with a Value of 4 overtime excess 3 then it is "High Confirmed" Else if there is no outstanding defect and the Count of CONDISC measures with a Value of 4 is more than 1 then Medium Else if there is a closed defect then "Low" Else Blank	STGDW04	Condition_Dim	CONDDISC	Select * , PartialDischarge = Case When LastDEFECTValue Is NULL and LastINSPvalue = 4 and Countof4 >= 4 then 'High (Not Confirmed)' When LastDEFECTValue Is NULL and LastINSPvalue = 4 and Countof4 < 4 then 'High (Not Confirmed)' When LastDEFECTValue = 4 and Countof4 >= 4 then 'High (Confirmed)' When LastDEFECTValue = 4 and Countof4 < 4 then 'High (Not Confirmed)' when Countof4 > 1 then 'Medium' When LastDEFECTValue = 1 then 'Low' when lastINSPvalue is not NULL or LastDEFECTvalue is Not NULL then 'Low' Else ' ' EndFROM (SELECT ed.EquipNo ,ed.equipclass ,cd2.MeasureValue as 'lastINSPvalue' ,cd3.MeasureValue as 'LastDEFECTvalue' ,count (cd.Measuredatekey) as 'Countof4' FROM [STGDW04].[dbo].[Equip_Dim] ed Left join [STGDW04].[dbo].[Condition_dim] cd on cd.equipno = ed.equipno and cd.measurename = 'CONDDISC' and cd.Measurevalue = 4 and cd.CompPosData = ' IN' Left join [STGDW04].[dbo].[Condition_dim] cd2 on cd2.equipno = ed.equipno and cd2.measurename = 'CONDDISC' and cd2.islatestmeasure = 1 and CD2.CompPosData = ' IN' ----Get last Inspection Left join [STGDW04].[dbo].[Condition_dim] cd3 on cd3.equipno = ed.equipno and cd3.measurename = 'CONDDISC' and cd3.islatestmeasure = 1 and CD3.CompPosData = ' DE' ---- Get last Defect where ed.equipstatus = 'CO' AND ed.dstrctCode IN ('0001','0002','0003') AND (SUBSTRING (ed.PLANTNO, 1, 1) <> 'T' or ed.PLANTNO is null) AND ---- i.e. Not A Training Asset. ed.Custodian <> 'IDNO' AND ed.isrowcurrent = 1 and (ed.equipsituation <>'Pole Mounted' or ed.EquipSituation is null)and (ed.EquipGrpId <> 'POLETX' or ed.EquipGrpId is NULL)and ed.Equipclass in 'DT' and ed.opvolts in ('2.0kv','2kV','2.1kV','2.2kV','2.7kV', '3.1kV', '3.3kV','3.46kV', '3.5kV', '3.6kV','6.6kV','10.5kV', '10.7kV','11kV','11.1kV','11.2kV','11.5kV','20kV') group by ed.EquipNo ,ed.equipclass, cd2.measureValue,cd3.measurevalue
HV Transformer GM	M7DI 15	OilAcidity	<= 0.15,> 0.15 and <= 0.3,> 0.5,> 0.3 and <= 0.5	Latest data, per asset	OilAcidity	To cater for the different types of readings held over time there are two possible values Therefore Transformer- Oil Acidity is the latest value for measure 19ACIDITY if we have it otherwise the latest value for OILACIDOLOtherwise BLANK	STGDW04	Condition_Dim	19Acidity , OILACIDOL	, OilAcidity = Case When ptxc.X19ACIDITY is not Null and cast(ptxc.X19ACIDITY as FLOAT) <1 and cast (ptxc.X19ACIDITY as Float) <= 0.15 Then '<= 0.15' When ptxc.X19ACIDITY is not Null and cast(ptxc.X19ACIDITY as FLOAT) <1 and cast (ptxc.X19ACIDITY as Float) <= 0.3 Then '> 0.15 and <= 0.3' When ptxc.X19ACIDITY is not Null and cast(ptxc.X19ACIDITY as FLOAT) <1 and cast (ptxc.X19ACIDITY as Float) <= 0.5 Then '> 0.3 and <= 0.5' When ptxc.X19ACIDITY is not Null and cast(ptxc.X19ACIDITY as FLOAT) <1 and cast (ptxc.X19ACIDITY as Float) > 0.5 Then '> 0.5' When ptxc.X19ACIDITY is Null and ptxc.OILACIDOL is not NULL and cast (ptxc.OILACIDOL as FLoat) <10 and cast (ptxc.OILACIDOL as Float) <= 0.15 Then '<= 0.15' When ptxc.X19ACIDITY is Null and ptxc.OILACIDOL is not NULL and cast (ptxc.OILACIDOL as FLoat) <10 and cast (ptxc.OILACIDOL as Float) <= 0.3 Then '> 0.15 and <= 0.3' When ptxc.X19ACIDITY is Null and ptxc.OILACIDOL is not NULL and cast (ptxc.OILACIDOL as FLoat) <10 and cast (ptxc.OILACIDOL as Float) <= 0.5 Then '> 0.3 and <= 0.5' When ptxc.X19ACIDITY is Null and ptxc.OILACIDOL is not NULL and cast (ptxc.OILACIDOL as FLoat) <10 and cast (ptxc.OILACIDOL as Float) > 0.5 Then '> 0.5' else '' End
HV Transformer GM	M7DI 16	TemperatureReadings	Normal,Moderately High,Very High	Latest data, per asset	TemperatureReadings	The Latest MaxTemp reading for the HV DT is cjecked if =>70 then Very High if =>35 then moderately high if lower than 35 then Normal otherwise Blank	STGDW04	Condition_Dim	See SQL Logic	,TemperatureReadings = case When Ptxc.MAXTEMP is NUll or ptxc.MAXTEMP = 0 then '' when ptxc.maxTEMP >= 70 then 'Very High' when ptxc.MAXTEMP >= 35 then 'Moderately High' when ptxc.MAXTEMP < 35 then 'Normal' else '' End
HV Transformer GM	M7DI 17	ReliabilityFactorInput		Latest data, per asset	ReliabilityFactorInput	When Old Oil Test Breakdown (Value) >30 then 1 when between 10 and 30 then 1.1 and when below 10or equal to 10 then 1.2 else BLANK	STGDW04	Condition_Dim	OILSTREOL	, ReliabilityFactorInput = Case when cast (ptxc.OILSTREOL as Float) = 0 then '' ---when ptxc.OILSTREOL is NULL then '' When cast (ptxc.OILSTREOL as Float) > 30 then '1.0' When cast (ptxc.OILSTREOL as Float) > 10 and ptxc.OILSTREOL <=30 then '1.1' When cast (ptxc.OILSTREOL as Float) <= 10 then '1.2' Else '' End

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Transformer GM	M7DI 18	ReliabilityCollarInput		Latest data, per asset	ReliabilityCollarInput	BLANK	STGDW04			BLANK
HV Transformer GM	M7DI 19	NoOfUnits		Latest data, per asset	NoOfUnits	Always 1	STGDW04			
HV Transformer GM	M7DI 20	TypeSafetyRating	Low,Medium,High	Latest data, per asset	TypeSafetyRating	Using the Equipment risk for the TX if 1 then Low if 2 then Medium if 3 or 4 then high	STGDW04	Locatiuon_dim		,TypeSafetyRating = Case when esq.ESCEquipRisk = '1 - LOW' then 'Low' when esq.ESCEquipRisk = '2 - MEDIUM' then 'Medium' when esq.ESCEquipRisk = '3 - HIGH' then 'High' when esq.ESCEquipRisk = '4 - V.HIGH' then 'High' Else '' End
HV Transformer GM	M7DI 21	LocationSafetyRating	Low,Medium,High	Latest data, per asset	LocationSafetyRating	Using the location risk risk for the TX if 1 then Low if 2 then Medium if 3 or 4 then high	STGDW04	Locatiuon_dim		,LocationSafetyRating = Case when esq.ESQCLocationRisk = '1 - LOW' then 'Low' when esq.ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when esq.ESQCLocationRisk = '3 - HIGH' then 'High' when esq.ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' End
HV Transformer GM	M7DI 22	SizeEnvironmentRating	>=750kVA,>=500kVA and <750kVA,<500kVA	Latest data, per asset	SizeEnvironmentRating	The Size environment rating is based on the secondary winding Voltage and the ONAN rating (See SQL Logic)	STGDW04	Non critical Dim		SizeEnvironmentRating = Case When cast (ptxc.SWV as Float) >1000 and ptxc.ONANRATE >= 5000 then '>=750kVA' When cast (ptxc.SWV as Float) >1000 and ptxc.ONANRATE >= 1000 and ptxc.ONANRATE < 5000 then '>=750kVA' When ptxc.ONANRATE >= 1000 and ptxc.ONANRATE < 5000 then '>=750kVA' When ptxc.ONANRATE >= 750 then '>=750kVA' When ptxc.ONANRATE >= 500 then '>=500kVA and <750kVA' When ptxc.ONANRATE < 500 then '<500kVA' Else ''
HV Transformer GM	M7DI 23	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	ProximityRating	Proximity distance (M) provided by TCS from NETMAP Analysis and manual association to Asset ID in asset register. The values are compared to bandings as descibed in SQL logic	TCS Extact in Alfrsco	TCS Extact in Alfrsco	Proximity(M)	Not Close to Water Course (>120m) or No Oil Moderately Close to Water Course (between 80m and 120m) Close to Water Course (between 40m and 80m) Very Close to Water Course (<40m)
HV Transformer GM	M7DI 24	Bunding	Bunded,Not Bunded	Latest data, per asset	Bunding	Determine if bunding exists for the TX by comparing Plant numbers (excluding the first two characters) for the Bund on the site to the TX on the Site When Know exceptions exist they are catered for e.g. Certain site numbers and Equipment Numbers	STGDW04	Equip_Dim	Plant No	SELECT ed.Equip_No, Bunded = Case When bd.plantno is Not NUll then 'Bunded' When tx.Siteno in ('008457','008458','008468','008527','008563','0H4015','0H8051') then 'Bunded' -----Known Sites where Bund holds "T1/T2" or somthing else that identifies a Holistic Bund in Name When ed.equip_no in ('000000103234', '000003218989') then 'Bunded' ----- Peculiar site with many bunds and Tx and data errors rendeing it not progamatically indecernable. Else 'Not Bunded' End FROM [EGRPSQL01].[STGDW03].[RRP].[Age_Profile_Data_Inst_Date_2014_5] ed LEFT JOIN [EGRPSQL01].[REGdb].[APR16].[Equip_Dim] tx on ed.equip_NO = tx.equipNO and tx.IsRowCurrent = 1 LEFT JOIN [EGRPSQL01].[REGdb].[APR16].[Equip_Dim] bd on bd.Equipclass = 'BN' and (RIGHT(bd.Plantno,2) = RIGHT(tx.Plantno,2)) and tx.siteno = bd.siteno and bd.isrowcurrent = 1 and bd.equipstatus = 'CO' WHERE ed.Ofgem_Row in ('050','048') and ed.dno in ('LPN','SPN','EPN')

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
HV Transformer GM	M7DI 25	NumberofConnectedCustomers		Latest data, per asset	NumberofConnectedCustomers	Customer Numbers is provided by TCS from ENMAC Analysis and manual association to asset register Equipment ID's .	TCS Extact in Alfrsco	TCS Extact in Alfrsco	Number of Customers	N/A
HV Transformer GM	M7DI 26	CustomerSensitivityFactor		Latest data, per asset	CustomerSensitivityFactor	BLANK	BLANK	BLANK	BLANK	BLANK
HV Transformer GM	M7DI 27	KVABandPerCustomer	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	KVABandPerCustomer	Maximum demand divided by Customer count	TCS data files	TCS data files	TCS data files	Calculated in prep Spreadsheet If either the Customer number is Zero or the demand is Zero then "" else Maximum demand divided by Customer number
HV Transformer GM	M7DI 28	TypeFinancialRating	>=750kVA,>=500kVA and <750kVA,<500kVA,>=1MVA and <5MVA,HV/HV >5MVA,HV/HV >=1MVA and <5MVA	Latest data, per asset	TypeFinancialRating	Using ONAN rating and secondary winding Voltage If SWV >1000 and.ONANRATE >= 5000 then 'HV/HV >5MVA' else if .SWV >=1000 and ONAN RATE between 1000 and 5000 then 'HV/HV >=1MVA and <5MVA' else if SWV <1000 and ONANRATE beteen 1000 and 5000 then '>=1MVA and <5MVA' else If .ONANRATE >= 750 then '>=750kVA' else if ONANRATE >= 500 then '>=500kVA and <750kVA' Else if .ONANRATE < 500 then '<500kVA' Else Leave Blank				,TypefinancialRating = Case When cast (ptxc.SWV as Float) >1000 and ptxc.ONANRATE >= 5000 then 'HV/HV >5MVA' When cast (ptxc.SWV as Float) >=1000 and ptxc.ONANRATE >= 1000 and ptxc.ONANRATE < 5000 then 'HV/HV >=1MVA and <5MVA' When cast (ptxc.SWV as Float) <1000 and ptxc.ONANRATE >= 1000 and ptxc.ONANRATE < 5000 then '>=1MVA and <5MVA' When ptxc.ONANRATE >= 750 then '>=750kVA' When ptxc.ONANRATE >= 500 then '>=500kVA and <750kVA' When ptxc.ONANRATE < 500 then '<500kVA' Else '' End
HV Transformer GM	M7DI 29	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined,Type C Criteria - Underground	Latest data, per asset	AccessFinancialRating	If Equipment is Outdoor then normal access else check location record for Equipment if Type C then type C underground else if type B then Type B else "no confined space" then normal, else blank	STGDW04	Equipment Dim and Location DIM , NPL_NonCritical_Dim	AttributeValue	AccessFinancialRating = Case when eqd.equipSituation = 'Outdoor' Then 'Type A Criteria - Normal Access' when ld. ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' when ld. ConfinedSpace = 'Type B (24 Hours)' Then 'Type B Criteria - Constrained/Confined' when ld. ConfinedSpace = 'Type B (Out Of Hours) ' Then 'Type B Criteria - Constrained/Confined' When ld. ConfinedSpace = 'No Confined space' Then 'Type A Criteria - Normal Access' When ld. ConfinedSpace = 'Type A Confined Space' Then 'Type A Criteria - Normal Access' when eqd.equipSituation = 'GRP' Then 'Type A Criteria - Normal Access' else ''

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Poles	M8DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT equip_no as AssetID
EHV OHL Support - Poles	M8DI2	Voltage		Latest data, per asset	Voltage of line carried by the pole	Extracted from the equipgrpiddesc field	REGdb	APR16.Equip_Dim	equipgrpiddesc	SELECT equipgrpiddesc as Voltage
EHV OHL Support - Poles	M8DI3	RouteName		Latest data, per asset	Route Name	Extracted from the RouteName field	REGdb	APR16.Equip_Dim	RouteName	SELECT [RouteName] as RouteName
EHV OHL Support - Poles	M8DI4	RouteNo.		Latest data, per asset	Route Number	Represented by "RouteNo" in the asset register	REGdb	APR16.Equip_Dim	[RouteNo]	SELECT [RouteNo] as [RouteNo.]
EHV OHL Support - Poles	M8DI5	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV OHL Support - Poles'	N/A	N/A	N/A	SELECT 'EHV OHL Support - Poles' as HealthIndexAssetCategory
EHV OHL Support - Poles	M8DI6	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row, if "076" then "33kV Pole", if "078" then "66kV Pole". "ERROR" for any other cases.	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN ED1_Row = '076' THEN '33kV Pole' WHEN ED1_Row = '078' THEN '66kV Pole' ELSE 'ERROR' END
EHV OHL Support - Poles	M8DI7	DistanceFromCoast		Latest data, per asset	Distance of the asset from the coast, measured in km	Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	EHVPole_GIS	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
EHV OHL Support - Poles	M8DI8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field.	CFM	EHVPole_GIS	ALTITUDE(M)	SELECT [ALTITUDE(M)] as Altitude
EHV OHL Support - Poles	M8DI9	CorrosionCategory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	EHVPole_GIS	CorrosionCategoryIndex	SELECT CorrosionCategoryIndex as CorrosionCategory
EHV OHL Support - Poles	M8DI10	Indoor_Outdoor	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
EHV OHL Support - Poles	M8DI11	MaterialPoles	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Type of material the pole is made of	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeNameANDattributeValue	SELECT MaterialPoles = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END
EHV OHL Support - Poles	M8DI12	ExpectedLifeSubdivision	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Expected life sub-division of the pole	Derived from the attributeValue field values corresponding to attributeName equal to "MATERIALPOLE" . If attributeValue is "Wood" then "Wood", if "Concrete" then "Concrete", if "Fibre Glass" or "Aluminium" then "Other (e.g. fibreglass)", if "Steel" or "Narrow Base Tower" or "Pb Steel Lattice" or "Steel Tubing" or "Steel Tubing - Adastra" then "Steel". Empty for all other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	AttributeName AND attributeValue	SELECT ExpectedLifeSubdivision = CASE WHEN MATERIALPOLE = 'Wood' THEN 'Wood' WHEN MATERIALPOLE = 'Concrete' THEN 'Concrete' WHEN MATERIALPOLE = 'Fibre Glass' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Aluminium' THEN 'Other (e.g. fibreglass)' WHEN MATERIALPOLE = 'Steel' THEN 'Steel' WHEN MATERIALPOLE = 'Narrow Base Tower' THEN 'Steel' WHEN MATERIALPOLE = 'Pb Steel Lattice' THEN 'Steel' WHEN MATERIALPOLE = 'Steel Tubing - Adastra' THEN 'Steel' ELSE '' END

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Poles	M8DI 13	Age	Yes,Missing	Latest data, per asset	Age of the pole in years	Based on the installation date of the asset, if installed later than 2016-04-01 then the age is 0, for any other cases it is equal to the difference in years between the installation date and 2016-04-01.	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	SELECT Age = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END
EHV OHL Support - Poles	M8DI 14	VisualPoleCondition	Operable,Inoperable	Latest data, per asset	Condition of the pole	Based on the material of the pole, latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) and the worst latest condition values (MeasureValue) recorder against MeasureName values in this list: 'HVPOLICON','HVPOLECON','POLEREASN','STEELCON','PAINTCON','DEFECTLPO','POLEROT'.If pole material is "Wood" and HVPOLECON is 4 and the defect fields do not contain "Pole Top Rot" or "Woodpecker Holes" then "Substantial Deterioration", if pole material is "Wood" and HVPOLECON is 3 or 4 then "Some Deterioration",if pole material is "Wood" and HVPOLECON is 1 or 2 then "Acceptable", if pole material is not "Wood" and HVPOLECON or STEELCON is 4 then "Substantial Deterioration",if pole material is not "Wood" and HVPOLECON or STEELCON is 3 then "Some Deterioration",if pole material is not "Wood" and HVPOLECON or STEELCON is less than 3 then "Acceptable". Empty for any other cases.	REGdb	[DBO].[NPL_NonCritical_Dim]AND[APR16].[Condition_Dim]	MeasureNameANDMeasureValueANDCDEVI1(2 ,3)ANDCDPVI1(2,3)	SELECT VisualPoleCondition = CASE WHEN MATERIALPOLE = 'Wood' AND HVPOLECON = 4 AND NOT (CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1= 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2= 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes') THEN 'Substantial Deterioration' WHEN MATERIALPOLE = 'Wood' AND (HVPOLECON IN (3, 4)) THEN 'Some Deterioration' WHEN MATERIALPOLE = 'Wood' AND (HVPOLECON IN (1, 2))THEN 'Acceptable' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON = 4 OR STEELCON = 4) THEN 'Substantial Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON = 3 OR STEELCON = 3) THEN 'Some Deterioration' WHEN MATERIALPOLE <> 'Wood' AND (HVPOLECON < 3 OR STEELCON < 3) THEN 'Acceptable' ELSE '' END
EHV OHL Support - Poles	M8DI 15	PoleTopRot		Latest data, per asset	Shows if the presence of rot at the top of the pole was observed during examinations/inspections	Based on the latest defects (fields CDEVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole. If "Pole Top Rot" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT PoleTopRot = CASE WHEN CDIVI1 = 'Pole Top Rot' OR CDIVI2 = 'Pole Top Rot' OR CDIVI3 = 'Pole Top Rot' OR CDEVI1 = 'Pole Top Rot' OR CDEVI2 = 'Pole Top Rot' OR CDEVI3 = 'Pole Top Rot' OR CDPVI1 = 'Pole Top Rot' OR CDPVI2 = 'Pole Top Rot' OR CDPVI3 = 'Pole Top Rot' THEN 'Yes' ELSE 'No' END
EHV OHL Support - Poles	M8DI 16	PoleLeaning		Latest data, per asset	Shows if during the examinations/inspections the pole was leaning	Derived from the latest worst attributeValue field values corresponding to attributeName equal to "DEFECTLPO". If 4 recorded against DEFECTLPO then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	attributeName AND attributeValue	SELECT PoleLeaning = CASE WHEN DEFECTLPO = '4' THEN 'Yes' ELSE 'No' END
EHV OHL Support - Poles	M8DI 17	Bird_AnimalDamage		Latest data, per asset	Shows if the presence damage caused by animals was observed during examinations/inspections	Based on the latest defects (fields CDIVI1 (2, 3), CDEVI1(2 ,3) and CDPVI1(2,3)) recorded against the pole. If "Woodpecker Holes" is contained within any of the defect fields then "Yes", "No" for any other cases.	REGdb	[APR16].[Condition_Dim]	CDIVI1 (2, 3) AND CDEVI1(2 ,3) AND CDPVI1(2,3)	SELECT Bird_AnimalDamage = CASE WHEN CDIVI1 = 'Woodpecker Holes' OR CDIVI2 = 'Woodpecker Holes' OR CDIVI3 = 'Woodpecker Holes' OR CDEVI1 = 'Woodpecker Holes' OR CDEVI2 = 'Woodpecker Holes' OR CDEVI3 = 'Woodpecker Holes' OR CDPVI1 = 'Woodpecker Holes' OR CDPVI2 = 'Woodpecker Holes' OR CDPVI3 = 'Woodpecker Holes' THEN 'Yes' ELSE 'No' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Poles	M8DI18	PoleDecay_Deterioration	Low,Medium,High	Latest data, per asset	Degree of pole decay/deterioration	Based on Pole Type (pt.PoleCategory - see "Pole_Category" sheet), Pole Category (pcat.PoleCategory - see "Pole_Category" sheet) and worst latest pole condition data (attributeValue) recorded against attributeName from this list: "STEELCON", "POLEROT" and "HVPOLICON".PoleDecay_Deterioration is "Very High" when STEELCON is 4 or HVPOLICON is 4 or: POLEROT is less than 70 for Pole Type "Inter" and Pole Category "Light"or POLEROT is less than 65 for Pole Type "INTER" and Pole Category "Medium"or POLEROT is less than 60 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout"or or POLEROT is less than 75 for Pole Type "PLANT" and Pole Category "Light" or "Medium"or POLEROT is less than 65 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout"or POLEROT is less than 80 for Pole Type "STRAIN" and Pole Category "Light"or POLEROT is less than 75 for Pole Type "STRAIN" and Pole Category "Medium"or POLEROT is less than 70 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout"PoleDecay_Deterioration is "High" when STEELCON is 3 or HVPOLICON is 3 or: POLEROT is less than 85 for Pole Type "Inter" and Pole Category "Light"or POLEROT is less than 82.5 for Pole Type "INTER" and Pole Category "Medium"or POLEROT is less than 80 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout"or or POLEROT is less than 88 for Pole Type "PLANT" and Pole Category "Light" or "Medium"or POLEROT is less than 82.5 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout"or POLEROT is less than 92 for Pole Type "STRAIN" and Pole Category "Light"or POLEROT is less than 88 for Pole Type "STRAIN" and Pole Category "Medium"or POLEROT is less than 85 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout"PoleDecay_Deterioration is "No Significant Decay/Deterioration" when STEELCON is 2 or HVPOLICON is 2 or: POLEROT is less than 92.5 for Pole Type "Inter" and Pole Category "Light"or POLEROT is less than 91.25 for Pole Type "INTER" and Pole Category "Medium"or POLEROT is less than 90 for Pole Type "INTER" and Pole Category "Stout" or "Extra Stout"or or POLEROT is less than 94.5 for Pole Type "PLANT" and Pole Category "Light" or "Medium"or POLEROT is less than 91.25 for Pole Type "PLANT" and Pole Category "Stout" or "Extra Stout"or POLEROT is less than 98 for Pole Type "STRAIN" and Pole Category "Light"or POLEROT is less than 94.5 for Pole Type "STRAIN" and Pole Category "Medium"or POLEROT is less than 92.5 for Pole Type "STRAIN" and Pole Category "Stout" or "Extra Stout"PoleDecay_Deterioration is "No Significant Decay/Deterioration" for any other cases.	REGdb	[APR16].[Condition_Dim]	attributeNameANDattributeValue	SELECT PoleDecay_Deterioration = CASEWHEN pt.PoleCategory = 'INTER' AND pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'INTER' and pcat.PoleCategory In ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 60 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 80 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 90 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory = 'Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'PLANT' and pcat.PoleCategory IN ('Stout', 'Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 65 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 82.5 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 91.25 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Light' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 80 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 92 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 98 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory ='Medium' THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 75 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 88 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 94.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDWHEN pt.PoleCategory = 'STRAIN' and pcat.PoleCategory IN ('Stout','Extra Stout') THEN CASE WHEN STEELCON = 4 or HVPOLICON = 4 or POLEROT < 70 THEN 'Very High' WHEN STEELCON = 3 or HVPOLICON = 3 or POLEROT < 85 THEN 'High' WHEN STEELCON = 2 or HVPOLICON = 2 or POLEROT < 92.5 THEN 'No Significant Decay/Deterioration' ELSE 'None' ENDELSE 'No Significant Decay/Deterioration'END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Fittings	M9DI1	AssetID		Latest data, per asset	EAM unique asset identifier created from the tower asset identifier	Created by concatenating the asset identification number of the tower and a suffix. Each tower will have between one and three fitting records, based on the equip_classifx4 field from Ellipse (MSF600 table). If equip_classifx4 from the tower record contains 34 then two unique records will be created: Asset ID + "-FIT1" and Asset ID + "-FIT2". If equip_classifx4 contains 35 then three unique records will be created: Asset ID + "-FIT1", Asset ID + "-FIT2" and Asset ID + "-FIT3". For any other cases only one record will be created: Asset ID + "-FIT1".	STGDW03 AND STGDW01	RRP.Age_Profile_Data_Inst_Date_2015_6 AND MSF600	Equip_No AND equip_classifx4	SELECT AssetID = CASE WHEN CirNo = 1 THEN AssetID+'-FIT1' WHEN CirNo = 2 THEN AssetID+'-FIT2' WHEN CirNo = 3 THEN AssetID+'-FIT3' ELSE AssetID END
EHV OHL Fittings	M9DI2	Route		Latest data, per asset	Route Name	Represented by "RouteNo" in the asset register	STGDW04	Equip_Dim	RouteNo	SELECT Routeno as [Route]
EHV OHL Fittings	M9DI3	RouteName		Latest data, per asset	Circuit Name	Extracted from the RouteName field	STGDW04	Equip_Dim	RouteName	SELECT RouteName as RouteName
EHV OHL Fittings	M9DI4	PlantNo.		Latest data, per asset	Asset Plant Number	Extracted from Plant Number field	STGDW04	Equip_Dim	plantno	SELECT plantno as [PlantNo.]
EHV OHL Fittings	M9DI5	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV OHL Support - Towers'	N/A	N/A	N/A	SELECT 'EHV OHL Fittings' as HealthIndexAssetCategory
EHV OHL Fittings	M9DI6	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row value: if "080" then "33kV Fittings", if "083" then "66kV Fittings"	STGDW03	RRP.Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '080' THEN '33kV Fittings' WHEN [ED1_Row] = '083' THEN '66kV Fittings' ELSE 'Error' END
EHV OHL Fittings	M9DI7	DistanceFromCoast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	[EHVSteelTowers_GIS]	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
EHV OHL Fittings	M9DI8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field. Any negative altitude is taken as 0	CFM	[EHVSteelTowers_GIS]	ALTITUDE(M)	SELECT Altitude = CASE WHEN Id.[ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
EHV OHL Fittings	M9DI9	CorrosionCategory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	[EHVSteelTowers_GIS]	CorrosionCategoryIndex	SELECT [CorrosionCategoryIndex] as CorrosionCategory
EHV OHL Fittings	M9DI10	Indoor_Outdoor	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
EHV OHL Fittings	M9DI11	Age	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Age of the fitting in years	Derived from the NPL_NonCritical_Dim table and depends on the fitting number. NPL_NonCritical_Dim contains records for maximum two fittings. Data for Fitting 1 is contained in the first record, Fitting 2 is contained in the second record and Fitting 3 is also recorded against the first record. The age is the calculated based on the FITTYEARC1 (or2) field and if emtpy then INSULYEARC1 (or 2) is used which if empty CCT1(or 2)DATE field is used. If these three fields are all empty then the installation date of the tower is used as the fitting date	STGDW04	[NPL_NonCritical_Dim]	attributeValue	SELECT Age = CASE WHEN CirNo IN (1,3) THEN abs(2016.0 - isnull(FITTYEARC1, isnull(INSULYEARC1, isnull(CCT1DATE,isnull(CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END,''))))) WHEN CirNo =2 THEN abs(2016.0 - isnull(FITTYEARC2, isnull(INSULYEARC2, isnull(CCT2DATE,isnull(CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END,'')))) else '' End

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Fittings	M9DI12	TowerFittingsCondition	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Condition of the tower fittings	Fitting related condition is stored as one or two records per tower. If the tower has only one set of fittings (see AssetID business rules) then one condition record will exist. If the tower has two or three fitting records then two condition records will exist. In cases where three sets of fittings exist then the first and third fitting conditions will be stored against the first condition record while the condition of the second fitting will be stored against the second condition record. The condition of the tower fittings is based on the worst latest condition (MeasureName is FITTWEA1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFECTFI1(or 2)). If FITTWEA1(or 2) is 1 then "As New", if 2 then "Normal Wear", if FITTWEA1(or 2) is 3 OR DEFECTFI1 is 4 then "Some Deterioration", if FITTWEA1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue AND MeasureName	TowerFittingsCondition = CASE WHEN CirNo IN (1,3) THEN CASE WHEN FITTWEA1 = '1' THEN 'As New' WHEN FITTWEA1 = '2' THEN 'Normal Wear' WHEN FITTWEA1 = '3' OR DEFECTFI1 >=0 THEN 'Some Deterioration' WHEN FITTWEA1 = '4' THEN 'Substantial Deterioration' ELSE ''END WHEN CirNo = 2 THEN CASE WHEN FITTWEA2 = '1' THEN 'As New' WHEN FITTWEA2 = '2' THEN 'Normal Wear' WHEN FITTWEA2 = '3' OR DEFECTFI2 >=0 THEN 'Some Deterioration' WHEN FITTWEA2 = '4' THEN 'Substantial Deterioration' ELSE ''END ELSE '' END
EHV OHL Fittings	M9DI13	ConductorFittingsCondition	Yes,Missing	Latest data, per asset	Condition of the conductor fittings	The condition of the conductor fittings is based on the worst latest condition recorded in Condition_Dim table (MeasureName is CONDFIT1(or 2)).If CONDFIT1(or 2) is 1 then "As New", if 2 then "Normal Wear", if 3 then "Some Deterioration", if 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValueANDMeasureName	SELECT ConductorFittingsCondition = CASEWHEN CirNo IN (1,3) THEN CASE WHEN CONDFIT1 = '1' THEN 'As New' WHEN CONDFIT1 = '2' THEN 'Normal Wear' WHEN CONDFIT1 = '3' THEN 'Some Deterioration' WHEN CONDFIT1 = '4' THEN 'Substantial Deterioration' ELSE ''ENDWHEN Base_tab.CirNo =2 THEN CASE WHEN CONDFIT2 = '1' THEN 'As New' WHEN CONDFIT2 = '2' THEN 'Normal Wear' WHEN CONDFIT2 = '3' THEN 'Some Deterioration' WHEN CONDFIT2 = '4' THEN 'Substantial Deterioration' ELSE '' ENDELSE '' END
EHV OHL Fittings	M9DI14	InsulatorsElectricalCondition	Operable,Inoperable	Latest data, per asset	Electrical condition of the insulators	The electrical condition of the insulators is based on the worst latest condition (MeasureName is INSCORR1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFECTIF1(or 2)). If INSCORR1(or 2) is 1 then "As New", if 2 then "Normal Wear", if INSCORR1(or 2) is 3 OR DEFECTIF1(or 2) is 4 then "Some Deterioration", if INSCORR1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue AND MeasureName	InsulatorsElectricalCondition =CASE WHEN CirNo IN (1,3) THEN CASE WHEN INSCORR1 = '1' THEN 'As New' WHEN INSCORR1 = '2' THEN 'Normal Wear' WHEN INSCORR1 = '3' OR DEFECTIF1 >=0 THEN 'Some Deterioration' WHEN INSCORR1 = '4' THEN 'Substantial Deterioration' ELSE ''END WHEN CirNo = 2 THEN CASE WHEN INSCORR2 = '1' THEN 'As New' WHEN INSCORR2 = '2' THEN 'Normal Wear' WHEN INSCORR2 = '3' OR DEFECTIF2 >=0 THEN 'Some Deterioration' WHEN INSCORR2 = '4' THEN 'Substantial Deterioration' ELSE ''END ELSE '' END
EHV OHL Fittings	M9DI15	InsulatorsMechanicalCondition		Latest data, per asset	Mechanical condition of the insulators	The mechanical condition of the insulators is based on the worst latest condition (MeasureName is CONDINST1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFINS1(or 2)). If CONDINST1(or 2) is 1 then "As New", if 2 then "Normal Wear", if CONDINST1(or 2) is 3 OR DEFINS1(or 2) is 4 then "Some Deterioration", if CONDINST1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue AND MeasureName	SELECT InsulatorsMechanicalCondition =CASE WHEN CirNo IN (1,3) THEN CASE WHEN CONDINST1 = '1' THEN 'As New' WHEN CONDINST1 = '2' THEN 'Normal Wear' WHEN CONDINST1 = '3' OR DEFINS1 >=0 THEN 'Some Deterioration' WHEN CONDINST1 = '4' THEN 'Substantial Deterioration' ELSE ''END WHEN CirNo = 2 THEN CASE WHEN CONDINST2 = '1' THEN 'As New' WHEN CONDINST2 = '2' THEN 'Normal Wear' WHEN CONDINST2 = '3' OR DEFINS2 >=0 THEN 'Some Deterioration' WHEN CONDINST2 = '4' THEN 'Substantial Deterioration' ELSE ''END ELSE '' END
EHV OHL Fittings	M9DI16	ThermalImaging		Latest data, per asset	UKPN does not currently collect this information	Always empty	N/A	N/A	N/A	SELECT '' as ThermalImaging
EHV OHL Fittings	M9DI17	DuctorTest		Latest data, per asset	UKPN does not currently collect this information	Always empty	N/A	N/A	N/A	SELECT '' as DuctorTest

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Fittings	M9DI18	ReliabilityFactorInput	Low,Medium,High	Latest data, per asset	The reliability of the asset	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityFactorInput
EHV OHL Fittings	M9DI19	ReliabilityCollarInput	Low,Medium,High	Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
EHV OHL Fittings	M9DI20	NoOfUnits		Latest data, per asset	Number of sets of fittings	Always 1	N/A	N/A	N/A	SELECT '1' as NoOfUnits
EHV OHL Fittings	M9DI21	TypeSafetyRating		Latest data, per asset	This addresses the principal characteristics of the equipment and its particular siting	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 2 THEN 'Medium' WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) IN (3,4) THEN 'High' ELSE '' END
EHV OHL Fittings	M9DI23	LocationSafetyRating	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_meas AND Measure_Value	SELECT LocationSafetyRating = CASE WHEN ESQCLOC IN ('3','4') THEN 'High' WHEN ESQCLOC = '2' THEN 'Medium' WHEN ESQCLOC = '1' THEN 'Low' ELSE '' END
EHV OHL Fittings	M9DI24	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	[EHVSteelTowers_Load]	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
EHV OHL Fittings	M9DI25	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType
EHV OHL Fittings	M9DI26	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' OR ESQCSpanLocationRiskCode LIKE '%L8%' OR ESQCSpanLocationRiskCode LIKE '%L9%' OR ESQCSpanLocationRiskCode LIKE '%LC%' OR ESQCSpanLocationRiskCode LIKE '%LG%' OR ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access' END
EHV OHL Fittings	M9DI27	TypeFinancialRating			Financial Type	Based on the value of the attrib_value field against the attribute_name values "CONFIG" OR "TOWERTYPE" from the Ellipse Nameplate table. If the attrib_value for "CONFIG" is in this list: 'TN','J','G' then "Tension", if "S" then "Suspension", if "TR" then "Terminal".If the attribute_value for "TOWERTYPE" is in this list: 'D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION' then "Tension", if in this list: 'DT','DT90','DTU','DX','RXS','ST','TERMINAL' then "Terminal", if different or missing then "Suspension".	STGDW01	NPL_NonCritical_Dim	attrib_valueANDattribute_name	SELECT TypeFinancialRating = CASE WHEN CONFIG IN ('TN','J','G') THEN 'Tension'WHEN CONFIG = 'S' THEN 'Suspension'WHEN CONFIG = 'TR' THEN 'Terminal'ELSE CASE --WHEN TOWERTYPE IN ('D','D10','D2','D2(S)','D2S','D3','DD10','DD2','DD2(S)','DD2S','DDT','DS','S10','S2','SUSPENSION','UNK') THEN 'Suspension' WHEN TOWERTYPE IN('D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION') THEN 'Tension' WHEN TOWERTYPE IN ('DT','DT90','DTU','DX','RXS','ST','TERMINAL') THEN 'Tension'--'Terminal' Terminal is not an allowable value for tower fitting ELSE 'Suspension' ENDEND

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Conductor (Tower Lines)	M10DI 1	AssetID			EAM unique asset identifier created from the tower asset identifier	Created by concatenating the asset identification number of the tower and a suffix. Each tower will have between one and three conductor records, based on the equip_classifx4 field from Ellipse (MSF600 table). If equip_classifx4 from the tower record contains 34 then two unique records will be created: Asset ID + "-CON1" and Asset ID + "-CON2". If equip_classifx4 contains 35 then three unique records will be created: Asset ID + "-CON1", Asset ID + "-CON2" and Asset ID + "-CON3". For any other cases only one record will be created: Asset ID + "-CON1".	[STGDW03] AND [STGDW01]	[RRP].[Age_Profile_Data_Inst_Date_2015_6] AND [PRD].[MSF600]	equip_no (as AssetID) AND equip_classifx4	SELECT AssetID = AssetID + case when cirNO = 1 then '-CON1' WHEN cirNO = 2 then '-CON2' WHEN CirNo = 3 then '-CON3' ELSE 'Error' END
EHV OHL Conductor (Tower Lines)	M10DI 2	Route			Route Name	Represented by "RouteNo" in the asset register	[STGDW04]	[DBO].Equip_Dim	Routeno	SELECT Routeno as [Route]
EHV OHL Conductor (Tower Lines)	M10DI 3	RouteName			Circuit Name	Extracted from the RouteName field	[STGDW04]	[DBO].Equip_Dim	routename	SELECT routename as RouteName
EHV OHL Conductor (Tower Lines)	M10DI 4	PlantNo.			Asset Plant Number	Extracted from Plant Number field	[STGDW04]	[DBO].Equip_Dim	plantno	SELECT plantno as [PlantNo.]
EHV OHL Conductor (Tower Lines)	M10DI 5	HealthIndexAssetCategory			CNAIM Health Index Asset Category	Always "EHV OHL Conductor (Tower Lines)"	N/A	N/A	N/A	SELECT 'EHV OHL Conductor (Tower Lines)' as HealthIndexAssetCategory
EHV OHL Conductor (Tower Lines)	M10DI 6	AssetRegisterCategory			CNAIM Asset Register Category	Based on ED1_Row value: if "080" then "33kV OHL (Tower Line) Conductor", if "083" then "66kV OHL (Tower Line) Conductor"	STGDW03	RRP.Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '080' THEN '33kV OHL (Tower Line) Conductor' WHEN [ED1_Row] = '083' THEN '66kV OHL (Tower Line) Conductor' ELSE 'Error' END
EHV OHL Conductor (Tower Lines)	M10DI 7	DistanceFromCoast			Distance of the asset from the coast, measured in km	Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset	CFM	dbo.[EHVSteelTowers_GIS]	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
EHV OHL Conductor (Tower Lines)	M10DI 8	Altitude			Altitude of the asset in metres	Extracted from the ALTITUDE(M) field. Any negative altitude is taken as 0	CFM	dbo.[EHVSteelTowers_GIS]	[ALTITUDE(M)]	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
EHV OHL Conductor (Tower Lines)	M10DI 9	CorrosionCategory			Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	dbo.[EHVSteelTowers_GIS]	CorrosionCategoryIndex	SELECT [CorrosionCategoryIndex] as CorrosionCategory
EHV OHL Conductor (Tower Lines)	M10DI 10	Indoor_Outdoor			Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Conductor (Tower Lines)	M10DI11	ExpectedLifeSubdivision			The type of conductor	Based on the values of attributeValue field against the conductor type (attributeValue = CONDTYPE(1 or 2, depending on the number of conductor sets - see AssetID business rules)). If the corresponding CONDTYPE value has the four characters starting from the 7th position equal to 'ACSR' then 'ACSR - greased', if 'AAAC' then 'AAAC', if 'HDAC' or 'ACCC' or the full value is 'Unknown' then 'Other'. '' for any other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeName AND attributeValue	SELECT ExpectedLifeSubdivision = CASE WHEN CirNo IN (1, 3) THEN CASE WHEN substring (CONDTYPE,7,4) = 'ACSR' or Substring (CONDTYPE1,7, 4) = 'ACSR' THEN 'ACSR - greased' WHEN substring (CONDTYPE,7,4) = 'AAAC' or substring (CONDTYPE1,7, 4) = 'AAAC' THEN 'AAAC' WHEN CONDTYPE = 'Unknown' OR substring (CONDTYPE,7,4) IN('HDAC','ACCC') Or substring (CONDTYPE1,7, 4) IN('HDAC','ACCC') THEN 'Other' ELSE '' END WHEN CirNo = 2 THEN CASE WHEN substring (CONDTYPE,7,4) = 'ACSR' or substring (CONDTYPE2,7, 4) = 'ACSR' THEN 'ACSR - greased' WHEN substring (CONDTYPE,7,4) = 'AAAC' or substring (CONDTYPE2,7, 4) = 'AAAC' THEN 'AAAC' WHEN CONDTYPE = 'Unknown' OR substring (CONDTYPE,7,4) IN('HDAC','ACCC') Or substring (CONDTYPE2,7, 4) IN('HDAC','ACCC') THEN 'Other' ELSE '' END ELSE '' END
EHV OHL Conductor (Tower Lines)	M10DI12	Age			Age of the conductor in years	Based on the conductor record number (see AssetID business rules). Extracted from the attributeValue field against records with attributeName = 'CCT1DATE' or 'CCT2DATE': the first record holds values for the first and third conductor set ('-CON1' AND '-CON3') while the last record ('CCT2DATE') refers to the second conductor set ('-CON2'). The age is calculated by subtracting the CCT(1 or 2)DATE from 2016-04-01. If there is no value then the tower installation date is used, provided it's not greater than '2016-04-01' in which case the age is 0.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeName AND attributeValue	SELECT Age = CASE WHEN CirNo IN (1, 3) THEN abs(2016.0 - isnull(CCT1DATE,CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END)) WHEN CirNo = 2 THEN abs(2016.0 - isnull(CCT2DATE,CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END)) else '' End
EHV OHL Conductor (Tower Lines)	M10DI13	VisualCondition			Conductor condition	Based on the condition values (MeasureValue) recorded against attributes (MeasureName) 'DEFECTCD1'(or 2) and 'DEFECTCI1'(or 2).If latest (up to 01/04/2016) worst values for DEFECTCI(1 or 2) OR DEFECTCD(1 or 2) are equal to 4 then 'Substantial Deterioration'. If value 4 has been recorded against those measures in the past (not the latest values) then 'Some Deterioration'. 'Normal Wear' for any other cases.	[STGDW04]	[DBO].[Condition_Dim]	MeasureNameANDMeasureValue	SELECT VisualCondition = CASEWHEN DEFECTCD1 = 4 or DEFECTCD2 = 4 or DEFECTCI1 =4 or DEFECTCI2 = 4 THEN 'Substantial Deterioration'WHEN DefHist > 1 THEN 'Some Deterioration'ELSE 'Normal Wear' END
EHV OHL Conductor (Tower Lines)	M10DI14	MidspanJoints			UKPN currently do not collect this asset information	Always empty	N/A	N/A	N/A	SELECT '' as MidspanJoints
EHV OHL Conductor (Tower Lines)	M10DI15	ConductorSampling			UKPN currently do not collect this asset information	Always empty	N/A	N/A	N/A	SELECT '' as ConductorSampling

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Conductor (Tower Lines)	M10DI16	CorrosionMonitoringSurvey			Survey result of the conductor corrosion	Based on the latest worst condition values (MeasureValue) recorded against attributes (MeasureName) 'CORMON1'(or 2). If 1 then 'Low', if 2 or 3 then 'Medium/Normal', if 4 then 'High'. Empty for any other cases.	REGdb	[APR16].[Condition_Dim]	MeasureName AND MeasureValue	CorrosionMonitoringSurvey = CASE WHEN CirNo IN (1,3) THEN CASE WHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) IN(2,3) THEN 'Medium/Normal' WHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) = 4 THEN 'High' else '' end WHEN CirNo = 2 THEN CASE WHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) IN(2,3) THEN 'Medium/Normal' WHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) = 4 THEN 'High' else '' end Else '' END
EHV OHL Conductor (Tower Lines)	M10DI17	ReliabilityFactorInput			The reliability of the asset	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityFactorInput
EHV OHL Conductor (Tower Lines)	M10DI18	ReliabilityCollarInput			A minimum limit of Health Score, which forms part of a Reliability Modifier	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
EHV OHL Conductor (Tower Lines)	M10DI19	NoOfUnits			Length of span in kilometres	Based on the attributeValue values corresponding to attributeName = 'SPANLENGTH1' or 'SPANLENGTH2', divided by 1000.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeName AND attributeValue	SELECT NoOfUnits = CASE WHEN CirNo IN (1, 3) THEN cast(SPANLENGTH1 as float)/1000 WHEN CirNo = 2 THEN cast(isnull(SPANLENGTH2, SPANLENGTH1) as float)/1000 else '' end
EHV OHL Conductor (Tower Lines)	M10DI20	TypeSafetyRating			This addresses the principal characteristics of the equipment and its particular siting	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) = 2 THEN 'Medium' WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) IN (3,4) THEN 'High' ELSE '' END
EHV OHL Conductor (Tower Lines)	M10DI22	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_measANDMeasure_Value	SELECT LocationSafetyRating = CASEWHEN ESQCLOCSP IN ('3','4') THEN 'High'WHEN ESQCLOCSP = '2' THEN 'Medium'WHEN ESQCLOCSP = '1' THEN 'Low'ELSE '' END
EHV OHL Conductor (Tower Lines)	M10DI23	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	[EHVSteelTowers_Load]	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
EHV OHL Conductor (Tower Lines)	M10DI24	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Conductor (Tower Lines)	M10DI25	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' OR ESQCSpanLocationRiskCode LIKE '%L8%' OR ESQCSpanLocationRiskCode LIKE '%L9%' OR ESQCSpanLocationRiskCode LIKE '%LC%' OR ESQCSpanLocationRiskCode LIKE '%LG%' OR ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Towers	M11DI 1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst _Date_2015_6	Equip_No	SELECT equip_no as AssetID
EHV OHL Support - Towers	M11DI 2	Route		Latest data, per asset	Route Name	Represented by "RouteNo" in the asset register	STGDW04	Equip_Dim	RouteNo	SELECT RouteNo as [Route]
EHV OHL Support - Towers	M11DI 3	RouteName		Latest data, per asset	Circuit Name	Extracted from the RouteName field	STGDW04	Equip_Dim	RouteName	SELECT RouteName
EHV OHL Support - Towers	M11DI 4	PlantNo.		Latest data, per asset	Asset Plant Number	Extracted from Plant Number field	STGDW04	Equip_Dim	plantno	SELECT plantno as [PlantNo.]
EHV OHL Support - Towers	M11DI 5	HealthIndexAs setCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV OHL Support - Towers'	N/A	N/A	N/A	SELECT 'EHV OHL Support - Towers' as HealthIndexAssetCategory
EHV OHL Support - Towers	M11DI 6	AssetRegisterC ategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row, if "080" then "33kV Tower", if "083" then "66kV Tower".	STGDW03	Age_Profile_Data_Inst _Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '080' THEN '33kV Tower' WHEN [ED1_Row] = '083' THEN '66kV Tower' ELSE 'Error' END
EHV OHL Support - Towers	M11DI 7	DistanceFrom Coast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	EHVSteelTowers_GIS	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
EHV OHL Support - Towers	M11DI 8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field.	CFM	EHVSteelTowers_GIS	ALTITUDE(M)	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
EHV OHL Support - Towers	M11DI 9	CorrosionCate gory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	EHVSteelTowers_GIS	CorrosionCategoryIndex	SELECT CorrosionCategoryIndex as CorrosionCategory
EHV OHL Support - Towers	M11DI 10	Indoor_Outdo or	Satisfactory,Some Deterioration,Substantia l Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
EHV OHL Support - Towers	M11DI 11	TowerExpecte dLifeSubdivisio n	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Tower - Expected Life Sub-division	Always 'Steelwork'	N/A	N/A	N/A	SELECT 'Steelwork' as TowerExpectedLifeSubdivision
EHV OHL Support - Towers	M11DI 12	TowerSteelwo rkAge	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Age of the tower steelwork in years	Taken as the number of years since the installation date of the asset (inst_date field).	STGDW03	Age_Profile_Data_Inst _Date_2015_6	inst_date	SELECT TowerSteelworkAge = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END
EHV OHL Support - Towers	M11DI 13	PaintworkExpe ctedLifeSubdiv ision	Yes,Missing	Latest data, per asset	The type of steelwork protective cover	Based on the installation date of the asset, if installed more than 30 years ago then "Paint System - Paint", if 30 years or less then "Paint System - Galvanising"	STGDW03	Age_Profile_Data_Inst _Date_2015_6	inst_date	SELECT PaintworkExpectedLifeSubdivision = case when (CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END) >30 then 'Paint System - Paint' WHEN (CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END) <=30 then 'Paint System - Galvanising' Else '' end
EHV OHL Support - Towers	M11DI 14	PaintworkAge	Operable,Inoperable	Latest data, per asset	Age of paintwork in years	Based on the date of the last completed paintwork work order (std_job_no is "LT3041" or "LT4005", completed_code is "AC"). If no paintwork work order exists then based on the asset installation date (inst_date field).	REGdb AND STGDW03	APR16.MSF620 AND Age_Profile_Data_Inst _Date_2015_6	closed_dt AND inst_date	SELECT PaintworkAge =isnull(CAST (Cast(datediff(DD,(convert (char (8),PaintDate, 111)),GetDate())/365.25 as int) as nvarchar(max)), CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END)

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Towers	M11DI 15	FoundationExpectedLifeSubdivision		Latest data, per asset	Foundation - Expected Life Sub-division	Based on the values of the attribute_value field against the attribute_name value "FOUNDTYPE" from the Ellipse Nameplate table. If attrib_value is in the following list: 'EG','MA','P','WPS','MP' then "Foundation - Earth Grillage", if in this list: 'RM','CR','RC','LB','HB','SC','SP','CSD','STP','MC', 'CBA','EC','PC' then "Foundation - Fully Encased Concrete". If value missing or not found then taken as "Foundation - Fully Encased Concrete".	STGDW01	MSF6A4	attrib_value	SELECT FoundationExpectedLifeSubdivision = Case WHEN FOUNDTYPE IN ('EG','MA','P','WPS','MP') THEN 'Foundation - Earth Grillage' WHEN FOUNDTYPE IN ('RM','CR','RC','LB','HB','SC','SP','CSD','STP','MC','CBA','EC','PC') THEN 'Foundation - Fully Encased Concrete' ELSE 'Foundation - Fully Encased Concrete' END
EHV OHL Support - Towers	M11DI 16	FoundationAge		Latest data, per asset	Age of foundation in years	Based on the installation date (inst_date field) of the asset unless there is a work order for foundation refurbishment (std_job_no = "LT4010"), in which case the WO completion date is used.	REGdbANDSTGDW03	APR16.MSF620 AND Age_Profile_Data_Inst_Date_2015_6	closed_dt ANDinst_date	SELECT PaintworkAge =isnull(CAST (Cast(datediff(DD,(convert (char (8),FoundationDate, 111)),GetDate())/365.25 as int) as nvarchar(max)),CASE WHEN inst_date > '2016-04-01' then 0ELSE datediff(DD, inst_date ,'2016-04-01')/365.25END)
EHV OHL Support - Towers	M11DI 17	TowerLegs		Latest data, per asset	Latest condition of Tower Legs	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	SELECT TowerLegs = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
EHV OHL Support - Towers	M11DI 18	Bracings	Low,Medium,High	Latest data, per asset	Latest condition of Bracings	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	SELECT Bracings = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
EHV OHL Support - Towers	M11DI 19	Crossarms	Low,Medium,High	Latest data, per asset	Latest condition of Crossarms	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	SELECT Crossarms = CASE WHEN CONDSTEEL IN (1,2) THEN 'Acceptable' WHEN CONDSTEEL IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
EHV OHL Support - Towers	M11DI 20	Peak		Latest data, per asset	Latest condition of peak	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	SELECT Peak = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
EHV OHL Support - Towers	M11DI 21	PaintworkCondition		Latest data, per asset	Latest condition of paint cover	Based on the values of the attribute_value field against the attribute_name value "PAINTCON" from the Condition_dim table. If MeasureValue is 1 then "As New", if 2 then "Slight Rust Breakthrough", if 3 then "Moderate Rust Breakthrough" , if 4 then "Severe Rust Breakthrough" .	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	PaintworkCondition = CASE WHEN PAINTCON = 1 THEN 'As New' WHEN PAINTCON = 2 THEN 'Slight Rust Breakthrough' WHEN PAINTCON = 3 THEN 'Moderate Rust Breakthrough' WHEN PAINTCON = 4 THEN 'Severe Rust Breakthrough' ELSE '' END
EHV OHL Support - Towers	M11DI 22	FoundationCondition	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	Latest condition of foundations	Based on the latest values of the MeasureValue field against the MeasureName values "TWRMUFF", "TWRHCELL" and "TWRTDM" from the Condition_dim table. If the maximum MeasureValue is 1 then "As New", if 2 then "Normal Wear", if 3 then "Some Deterioration" , if 4 then "Substantial Deterioration".	REGdb	APR16.[Condition_Dim]	MeasureValue AND MeasureName	SELECT FoundationCondition = CASE WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 1 THEN 'As New' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 2 THEN 'Normal Wear' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 3 THEN 'Some Deterioration' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 4 THEN 'Substantial Deterioration' ELSE '' END
EHV OHL Support - Towers	M11DI 23	ReliabilityFactorInput			The reliability of the asset	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityFactorInput

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV OHL Support - Towers	M11DI 24	ReliabilityCollarInput			A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for tower supports	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
EHV OHL Support - Towers	M11DI 25	NoOfUnits			Number of tower supports per record	Always 1 unit	N/A	N/A	N/A	SELECT 1 as NoOfUnits
EHV OHL Support - Towers	M11DI 26	TypeSafetyRating			This addresses the principal characteristics of the equipment and its particular siting.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 1 THEN 'Low' WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 2 THEN 'Medium' WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) IN (3,4) THEN 'High' ELSE '' END
EHV OHL Support - Towers	M11DI 28	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_meas AND Measure_Value	SELECT LocationSafetyRating = CASE WHEN ESQCLOC IN ('3','4') THEN 'High' WHEN ESQCLOC = '2' THEN 'Medium' WHEN ESQCLOC = '1' THEN 'Low' ELSE '' END
EHV OHL Support - Towers	M11DI 29	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	EHVSteelTowers_Load	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
EHV OHL Support - Towers	M11DI 30	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType
EHV OHL Support - Towers	M11DI 31	TypeFinancialRating			Financial Type	Based on the value of the attrib_value field against the attribute_name values "CONFIG" OR "TOWERTYPE" from the Ellipse Nameplate table. If the attribute_value for "CONFIG" is in this list: 'TN','J','G' then "Tension", if "S" then "Suspension", if "TR" then "Terminal". If the attribute_value for "TOWERTYPE" is in this list: 'D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION' then "Tension", if in this list: 'DT','DT90','DTU','DX','RXS','ST','TERMINAL' then "Terminal", if different or missing then "Suspension".	STGDW01	MSF6A4	attrib_value	SELECT TypeFinancialRating = CASE WHEN CONFIG IN ('TN','J','G') THEN 'Tension' WHEN CONFIG = 'S' THEN 'Suspension' WHEN CONFIG = 'TR' THEN 'Terminal' ELSE CASE WHEN TOWERTYPE IN('D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION') THEN 'Tension' WHEN TOWERTYPE IN ('DT','DT90','DTU','DX','RXS','ST','TERMINAL') THEN 'Terminal' ELSE 'Suspension' END
EHV OHL Support - Towers	M11DI 32	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASEWHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' ORESQCSpanLocationRiskCode LIKE '%L8%' ORESQCSpanLocationRiskCode LIKE '%L9%' ORESQCSpanLocationRiskCode LIKE '%LC%' ORESQCSpanLocationRiskCode LIKE '%LG%' ORESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing'ELSE 'Type A Criteria - Normal Access' END
EHV OHL Support - Towers	M11DI 33	OverallTowerAge			Age of the tower in years	Taken as the number of years since the installation date of the asset (inst_date field).	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	SELECT OverallTowerAge = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	Manual Preparation Logic Logic
132kV UG Cable (Gas)	M21DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Generated automatically in master spreadsheet	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI2	RouteName		Latest data, per asset	Name of route	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI3	CableSection		Latest data, per asset	CableSection	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI4	Voltage		Latest data, per asset	Voltage	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI5	HealthIndexAssetCategory	132kV UG Cable (Gas)	Latest data, per asset	CNAIM Health Index Asset Category	Default to 132kV UG Cable (Gas)	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI6	AssetRegisterCategory	132kV UG Cable (Gas)	Latest data, per asset	CNAIM Asset Register Category	Default to 132kV UG Cable (Gas)	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI7	Utilisation		Latest data, per asset	Utilisation of Asset i.e. capacity against demand	As per Common Framework Methodology - (Duty Factor 1) + (Duty Factor 2) / 2) - table 30	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI8	OperatingVoltageOverDesignVoltage		Latest data, per asset	OperatingVoltageOverDesignVoltage	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI9	ExpectedLifeSubdivision	Aluminium Sheath - Aluminium Conductor,Aluminium Sheath - Copper Conductor,Lead Sheath - Aluminium Conductor,Lead Sheath - Copper Conductor	Latest data, per asset	Material core and sheathh	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI10	Age		Latest data, per asset	Time since year of manufacture	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI12	Leakage	Leakage	Leakage	Leakage	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI13	ReliabilityFactorInput		Latest data, per asset	ReliabilityFactorInput	defulat to 1.5	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI14	ReliabilityCollarInput		Latest data, per asset	ReliabilityCollarInput	Defulat to blank	Manual	N/A	N/A	None
132kV UG Cable (Gas)	M21DI15	NoOfUnits		Latest data, per asset	Legnth of cable	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	convert meters to Kilometers

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	Manual Preparation Logic Logic
132kV UG Cable (Gas)	M21DI17	LocationSafetyRating	Buried,Exposed	Latest data, per asset	Burried or exposed	Populated manually in Master spreadsheet	Manual	Asset register of UKPN Gas cables (to be uploaded to SAP)	N/A	None
132kV UG Cable (Gas)	M21DI18	MaximumDemand	MaximumDemand	Maximum Demand	MaximumDemand	Populated manually in Master spreadsheet	Manual	PowerOn	N/A	None
132kV UG Cable (Gas)	M21DI19	NetworkType	Secure,Unsecure	Latest data, per asset	Secure or not	Defulat to Secure	Manual	N/A	N/A	None

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV UG Cable (Oil)	M14DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW04	Equip_Dim	EquipNo	SELECT EquipNo AS AssetID
EHV UG Cable (Oil)	M14DI2	GeneralInformation1		Latest data, per asset	GeneralInformation1					
EHV UG Cable (Oil)	M14DI3	GeneralInformation2		Latest data, per asset	GeneralInformation2					
EHV UG Cable (Oil)	M14DI4	GeneralInformation3		Latest data, per asset	GeneralInformation3					
EHV UG Cable (Oil)	M14DI5	HealthIndexAssetCategory	EHV UG Cable (Oil)	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV UG Cable (Oil)'	N/A	N/A	N/A	Select 'EHV UG Cable (Oil)' AS HealthIndexAssetCategory
EHV UG Cable (Oil)	M14DI6	AssetRegisterCategory	33kV UG Cable (Oil),66kV UG Cable (Oil)	Latest data, per asset	CNAIM Asset Register Category	Based on OPVolts if 22kV then '33kV UG Cable (Oil)', if 25kV then '33kV UG Cable (Oil)', if 33kV then '33kV UG Cable (Oil)', if 66kV then '66kV UG Cable (Oil)' all else set to blank	STGDW04	Equip_Dim	OPVolts	SELECT AssetRegisterCategory = CASE WHEN PED.OPVolts IN ('22kV','25kV','33kV') THEN '33kV UG Cable (Oil)' WHEN PED.OPVolts = '66kV' THEN '66kV UG Cable (Oil)' ELSE '' END
EHV UG Cable (Oil)	M14DI7	Utilisation		Latest data, per asset	Utilisation	Always ''	N/A	N/A	N/A	SELECT '' AS Utilisation
EHV UG Cable (Oil)	M14DI8	OperatingVoltageOverDesignVoltage		Latest data, per asset	Operating Voltage Over Design Voltage	Always '1'	N/A	N/A	N/A	SELECT '1' AS Utilisation
EHV UG Cable (Oil)	M14DI9	ExpectedLife Subdivision	Aluminium Sheath - Aluminium Conductor,Aluminium Sheath - Copper Conductor,Lead Sheath - Aluminium Conductor,Lead Sheath - Copper Conductor	Latest data, per asset	Expected Life Sub Division	Based on SHEATHTYPE and MATERIAL CORE if SHEATHTYPE is LEAD and MATERIALCORE is Aluminium then 'Lead Sheath Aluminium Conductor', if SHEATHTYPE is LEAD and MATERIALCORE is Copper then 'Lead Sheath Copper Conductor', if SHEATHTYPE is Aluminium and MATERIALCORE is Aluminium then 'Aluminium Sheath Aluminium Conductor', if SHEATHTYPE is Aluminium and MATERIALCORE is Copper then 'Aluminium Sheath Copper Conductor'	STGDW04	NPL_NonCritical_Dim	AttributeName AS SHEATHTYPE and AS MATERIALCORE	SELECT ExpectedLifeSubDivision = CASE WHEN NCD.SHEATHTYPE = 'Lead' AND NCD.MATERIALCORE = 'Aluminium' THEN 'Lead Sheath - Aluminium Conductor' WHEN NCD.SHEATHTYPE = 'Lead' AND NCD.MATERIALCORE = 'Copper' THEN 'Lead Sheath - Copper Conductor' WHEN NCD.SHEATHTYPE = 'Aluminium' AND NCD.MATERIALCORE = 'Aluminium' THEN 'Aluminium Sheath - Aluminium Conductor' WHEN NCD.SHEATHTYPE = 'Aluminium' AND NCD.MATERIALCORE = 'Copper' THEN 'Aluminium Sheath - Copper Conductor' ELSE ''END
EHV UG Cable (Oil)	M14DI10	Age		Latest data, per asset	Calculated Age from asset commission date or manufacture date	When Year Manufactured is null or 0 default asume manufactured in 1961 and default to 55 otherwise calculate age in years from current date	STGDW04	Equip_Dim	YearManuf	SELECT Age = CASE WHEN ED.YearManuf IS NULL OR ED.YearManuf = 0 THEN 55 --(2016 - 1961) assuming manufactured in 1961 ELSE CAST (DATEDIFF(DD,(CONVERT(CHAR(4),(ED.YearManuf * 1),111)),GetDate())/365.25 AS INT) END
EHV UG Cable (Oil)	M14DI12	Leakage	Low/Moderate,High,No (or Very Low) Historic Leakage Recorded,Very High	Latest data, per asset	Leakage	Based on the average number of visits per year to replace lost oil in the last five years. If 0 to 0.4 then 'No (or Very Low) Historic Leakage Recorded'. If 0.4 to 0.8 then 'Low/Moderate', if 0.8 to 2.0 then 'High'. If over 2.0 then 'Very High'	STGDW04	Condition_Dim	CAST(COUNT(CD.EquipNo) AS FLOAT)/5 AS AvgVisits	SELECT Leakage = CASE WHEN CD.AvgVisits IS NULL OR CD.AvgVisits < 0.4 THEN 'No (or Very Low) Historic Leakage Recorded' WHEN CD.AvgVisits >= 0.4 AND CD.AvgVisits < 0.8 THEN 'Low/Moderate' WHEN CD.AvgVisits >= 0.8 AND CD.AvgVisits < 2.0 THEN 'High' WHEN CD.AvgVisits >= 2.0 THEN 'Very High' ELSE ''

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV UG Cable (Oil)	M14DI13	ReliabilityFactorInput		Latest data, per asset	The reliability of the asset	The reliability of the asset depends on the length and the number of joints. If the cable if Mollerhoj then reliability factor =1.5. If either the length or number of joins is 0 or is null the reliability is left blank. If the length divided by the number of joints + 1 is <= 150 then the reliability factor is 1.12. Otherwise the reliability factor is left blank	STGDW04	NPL_NonCritical_Dim	Attribute Name AS MOLLERHOJ and AS NOJOINTS and AS LENGTH	SELECT ReliabilityFactorInput = CASE WHEN NCD.MOLLERHOJ = 'Y' THEN '1.5' WHEN NCD.[LENGTH] IS NULL OR NCD.[LENGTH] = 0 OR NCD.NOJOINTS IS NULL OR NCD.NOJOINTS = 0 THEN '' WHEN (CAST(NCD.[LENGTH] AS FLOAT)/(CAST(NCD.NOJOINTS AS FLOAT) + 1)) <= 150 THEN '1.12' ELSE '' END
EHV UG Cable (Oil)	M14DI14	ReliabilityCollarInput		Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for Linkbox	Always ''	N/A	N/A	N/A	SELECT '' AS ReliabilityCollarInput
EHV UG Cable (Oil)	M14DI15	NoOfUnits		Latest data, per asset	Number of 1000m lengths of cable	As cable is a linear asset the number of 1000m lengths is used in place of Number of Units. If length I zero or null Number of Units is left blank. If the length is less than 1m the length is entered. Otherwise the length is divided by 1000	STGDW04	NPL_NonCritical_Dim	Attribute Name AS length	SELECT NoOfUnits = CASE WHEN NCD.[LENGTH] = 0 OR NCD.[LENGTH] IS NULL THEN '' WHEN NCD.[LENGTH] < 1 THEN NCD.[LENGTH] ELSE CAST(CONVERT(DECIMAL(10,3),(CAST(NCD.[LENGTH] AS FLOAT)/1000)) AS NVARCHAR) END
EHV UG Cable (Oil)	M14DI17	LocationSafetyRating	Buried,Exposed	Latest data, per asset	Determined by whether the cable is underground	If the cable is underground then it is 'Burried' otherwise it is 'exposed'	STGDW04	Equip_Dim	EquipSituation	SELECT LocationSafetyRating = CASE WHEN ED.EquipSituation = 'Underground' THEN 'Buried' ELSE 'Exposed' END
EHV UG Cable (Oil)	M14DI18	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	ProximityRating	Taken from Proximity rating	CFM	CableOil_ProximityRating	Distance	SELECT Distance as ProximityRating
EHV UG Cable (Oil)	M14DI19	MaximumDemand		Latest data, per asset	MaximumDemand	Taken from Maximum Demand	CFM	CableOil_Load	Maximum Demand Load	SELECT [Maximum Demand Load] AS MaximumDemand
EHV UG Cable (Oil)	M14DI20	NetworkType	Secure,Unsecure	Latest data, per asset	NetworkType	Always 'Secure'	N/A	N/A	N/A	SELECT 'Secure' AS NetworkType

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Switchgear (GM)	M16DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT EquipNo AS AssetID
EHV Switchgear (GM)	M16DI2	SiteName		Latest data, per asset	Name of the site location of the asset	Extracted from the Sitename field in the Equip_Dim table	STGDW04	DBO.Equip_Dim	Sitename	SELECT SiteName AS SiteName
EHV Switchgear (GM)	M16DI3	AssetName		Latest data, per asset	Asset name	Extracted from the AssetName field in the Equip_Dim table	STGDW04	DBO.Equip_Dim	AssetName	SELECT AssetName AS AssetName
EHV Switchgear (GM)	M16DI4	Manufacturer_Model		Latest data, per asset	The manufacturer and model names of the asset	Created by concatenating the Manufacturer name and model with a dash in-between	STGDW04	DBO.Equip_Dim	Manufacturer AND ManufModel	SELECT Manufacturer + '-' + ManufModel AS Manufacturer_Model
EHV Switchgear (GM)	M16DI5	HealthIndexAssetCategory	EHV Switchgear (GM)	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV Switchgear (GM)'	N/A	N/A	N/A	Select 'EHV Switchgear (GM)' AS HealthIndexAssetCategory
EHV Switchgear (GM)	M16DI6	AssetRegisterCategory	33kV CB (Air Insulated Busbars)(OD)(GM),33 kV CB (Gas Insulated Busbars)(ID)(GM),33k V CB (Gas Insulated Busbars)(OD)(GM),33 kV RMU,33kV Switch (GM),66kV CB (Air Insulated Busbars)(ID)(GM),66k V CB (Air Insulated Busbars)(OD)(GM),66 kV CB (Gas Insulated Busbars)(ID)(GM),66k V CB (Gas Insulated Busbars)(OD)(GM),33 kV CB (Air Insulated Busbars)(ID)(GM)	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row: If 092 then '33kV CB (Air Insulated Busbars)(ID)(GM)' 093 then '33kV CB (Air Insulated Busbars)(OD)(GM)' 094 then '33kV CB (Gas Insulated Busbars)(ID)(GM)' 095 then '33kV CB (Gas Insulated Busbars)(OD)(GM)' 099 then '33kV RMU' 096 then '33kV Switch (GM)' 100 then '66kV CB (Air Insulated Busbars)(OD)(GM)' 101 then '66kV CB (Air Insulated Busbars)(ID)(GM)' 102 then '66kV CB (Gas Insulated Busbars)(OD)(GM)' 103 then '66kV CB (Gas Insulated Busbars)(ID)(GM)'	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN ED1_Row = '092' THEN '33kV CB (Air Insulated Busbars)(ID)(GM)' WHEN ED1_Row = '093' THEN '33kV CB (Air Insulated Busbars)(OD)(GM)' WHEN ED1_Row = '094' THEN '33kV CB (Gas Insulated Busbars)(ID)(GM)' WHEN ED1_Row = '095' THEN '33kV CB (Gas Insulated Busbars)(OD)(GM)' WHEN ED1_Row = '099' THEN '33kV RMU' WHEN ED1_Row = '096' THEN '33kV Switch (GM)' WHEN ED1_Row = '100' THEN '66kV CB (Air Insulated Busbars)(OD)(GM)' WHEN ED1_Row = '101' THEN '66kV CB (Air Insulated Busbars)(ID)(GM)' WHEN ED1_Row = '102' THEN '66kV CB (Gas Insulated Busbars)(OD)(GM)' WHEN ED1_Row = '103' THEN '66kV CB (Gas Insulated Busbars)(ID)(GM)' END
EHV Switchgear (GM)	M16DI7	DistanceFromCoast		Latest data, per asset	Distance from coast to asset	Extracted from the DISTNCEFROMCOAST(KM) field	CFM	EHV_Switchgear_(GM)_GIS	DISTANCEFROMCOAST(KM)	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
EHV Switchgear (GM)	M16DI8	Altitude		Latest data, per asset	Altitude	Extracted from the [ALTITUDE(M)] field	CFM	EHV_Switchgear_(GM)_GIS	[ALTITUDE(M)]	SELECT [ALTITUDE(M)] AS Altitude
EHV Switchgear (GM)	M16DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	Extracted from the [CorrosionCategoryIndex] field	CFM	EHV_Switchgear_(GM)_GIS	[CorrosionCategoryIndex]	SELECT [CorrosionCategoryIndex] AS CorrosionCategory
EHV Switchgear (GM)	M16DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Determines situation of asset to be indoors or outdoors	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE '' END
EHV Switchgear (GM)	M16DI11	SwitchgearNumberofOperations	Normal/Low,High (e.g. Auto-Reclosers)	Latest data, per asset	Determines if switchgear operations are high or normal/low	If CircuitBreakerFunction = B then number of operations is 'High (e.g. Auto-Reclosers)'. If CircuitBreakerFunction = D F or T then the number of operations is 'Normal/Low'. Otherwise leave blank	STGDW04	Equip_Dim	CircuitBreakFunction	SELECT SwitchgearNumberofOperations = CASE WHEN CircuitBreakFunction = 'B' THEN 'High (e.g. Auto-Reclosers)' WHEN CircuitBreakFunction IN ('D','F','T') THEN 'Normal/Low' ELSE '' END
EHV Switchgear (GM)	M16DI12	Age		Latest data, per asset	Age of asset in years	Calculate the age in years from the current date and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6 otherwise set Age to blank	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	Age = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Switchgear (GM)	M16DI13	SwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the Switchgear	Based on the defects and latest condition values against the asset: If (CONDCONTB = 4 AND CABLEBOX = 4) OR CONDHOUS = 4 OR CONDBUSH = 4 OR CONDEXBUSH = 4 OR DEFBUSH = 4 THEN 'Substantial Deterioration' If CONDBUSH = 3 OR CONDEXBUSH = 3 or CONDHOUS = 3 OR CONDCONTB > 2 OR CABLEBOX > 2 OR DEFECTCOM = 4 OR DEFECTCAB = 4 OR DEFECTECO = 4 THEN 'Some Deterioration' If CONDBUSH = 2 OR CONDEXBUSH = 2 or CONDHOUS = 2 OR CONDCONTB = 2 OR CABLEBOX = 2 THEN 'Normal Wear' If CONDBUSH = 1 AND CONDEXBUSH = 1 AND CONDHOUS = 1 AND DEFBUSH = 1 THEN 'As New' Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT SwitchgearExternalCondition =CASE WHEN (CONDCONTB = 4 AND CABLEBOX = 4) OR CONDHOUS = 4 OR CONDBUSH = 4 OR CONDEXBUSH = 4 OR DEFBUSH = 4 THEN 'Substantial Deterioration' WHEN CONDBUSH = 3 OR CONDEXBUSH = 3 or CONDHOUS = 3 OR CONDCONTB > 2 OR CABLEBOX > 2 OR DEFECTCOM = 4 OR DEFECTCAB = 4 OR DEFECTECO = 4 THEN 'Some Deterioration' WHEN CONDBUSH = 2 OR CONDEXBUSH = 2 or CONDHOUS = 2 OR CONDCONTB = 2 OR CABLEBOX = 2 THEN 'Normal Wear' WHEN CONDBUSH = 1 AND CONDEXBUSH = 1 AND CONDHOUS = 1 AND DEFBUSH = 1 THEN 'As New' ELSE '' END
EHV Switchgear (GM)	M16DI14	OilLeaks_GasPressure	Good,Slight Leak,Poor,Severe Leak	Latest data, per asset	Identifies the presence of an oil leak at the asset	Based on the latest condition, defects, attributes (GASCAP), and latest gas readings (CUM_VALUE):If DEFSEVOIL = 4 OR OILCONTA = 4 OR SF6PRESS > 2 OR CUM_Value > GASCAP THEN 'Severe Leak'If OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR P.DEFECTOLE = 4 OR SF6PRESS = 2 THEN 'Poor'If OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 OR SF6PRESS = 1 THEN 'Slight Leak'If OILCONTA = 1 OR CONDITION > 1 OR SF6PRESS = 0 THEN 'Good'	REGdbANDSTGDW04ANDSTGDW01	APR16.Condition_DimANDNPL_NonCritical_DimANDMSF400	MeasureNameANDMeasureValueANDCUM_VALUEANDstat_typeANDSTAT_DATE	SELECT cd.equip_no, cd.CUM_VALUE FROM (SELECT CD.Equip_No, MAX(CD.[STAT_DATE]) AS [MAX_STAT_DATE] FROM #AssetCategoryList ED INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on ED.Equip_NO = CD.Equip_No AND CD.[STAT_DATE] < 20160401 AND CD.stat_type = 'ST' GROUP BY CD.Equip_No) X INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on x.Equip_NO = cd.equip_no and x.[MAX_STAT_DATE] = cd.Stat_DateSELECT OilLeaks_GasPressure = CASEWHEN DEFSEVOIL = 4 OR OILCONTA = 4 OR SF6PRESS > 2 OR CUM_Value > GASCAP THEN 'Severe Leak'WHEN OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR P.DEFECTOLE = 4 OR SF6PRESS = 2 THEN 'Poor'WHEN OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 OR SF6PRESS = 1 THEN 'Slight Leak'WHEN OILCONTA = 1 OR CONDITION > 1 OR SF6PRESS = 0 THEN 'Good'
EHV Switchgear (GM)	M16DI15	ThermographicAssessment	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Thermographic Assessment	Always blank	N/A	N/A	N/A	SELECT '' AS ThermographicAssessment
EHV Switchgear (GM)	M16DI16	SwitchgearInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the Switchgear	Based on latest condition values and any defects: If CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 OR SELECTOPE = 4 THEN 'Substantial Deterioration' If CONDITION = 3 OR CONDINTER = 3 OR OPERATION = 3 OR DEFSEVCOR = 4 OR CONDCON = 4 OR DEFOPMECH = 4 OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 4 OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS = 4 THEN 'Some Deterioration' If CONDITION = 2 OR CONDINTER = 2 OR OPERATION = 2 THEN 'Normal Wear' If CONDITION = 1 AND CONDINTER = 1 AND OPERATION = 1 THEN 'As New' Blank for any other cases	STGDW04 (for defects) AND REGdb (for condition)	DBO.Condition_Dim (for defects) AND APR16.Condition_Dim (for condition)	MeasureName AND MeasureValue	SELECT SwitchgearInternalCondition_Operation = CASE WHEN CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 OR SELECTOPE = 4 THEN 'Substantial Deterioration' WHEN CONDITION = 3 OR CONDINTER = 3 OR OPERATION = 3 OR DEFSEVCOR = 4 OR CONDCON = 4 OR DEFOPMECH = 4 OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 4 OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS = 4 THEN 'Some Deterioration' WHEN CONDITION = 2 OR CONDINTER = 2 OR OPERATION = 2 THEN 'Normal Wear' WHEN CONDITION = 1 AND CONDINTER = 1 AND OPERATION = 1 THEN 'As New' ELSE ''END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Switchgear (GM)	M16DI17	IndoorEnvironment	Better than Expected,As Expected,Deteriorated Environment,Severely Deteriorated Environment	Latest data, per asset	Determines the condition of the assets environment	If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 4 'Severely Deteriorated Environment'If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 3 'Deteriorated Environment'If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =2 'As Expected'If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =1 'Better Than Expected' Otherwise set to blank	STGDW04 (for defects)ANDREGdb (for condition)	DBO.Condition_Dim (for defects)ANDAPR16.Condition_Dim (for condition)	MeasureNameANDMeasureValue	SELECT IndoorEnvironment = CASE WHEN CONDEXKIO = 4 OR CONSUPPOR = 4 OR DEFECTSUB = 4 OR DEFECTCCU = 4 THEN 'Severely Deteriorated Environment' WHEN CONDEXKIO = 3 OR CONSUPPOR = 3 OR DEFECTSUB = 3 OR DEFECTCCU = 3 THEN 'Deteriorated Environment' WHEN CONDEXKIO = 2 OR CONSUPPOR = 2 OR DEFECTSUB = 2 OR DEFECTCCU = 2 THEN 'As Expected' WHEN CONDEXKIO = 1 OR CONSUPPOR = 1 OR DEFECTSUB = 1 OR DEFECTCCU = 1 THEN 'Better Than Expected' ELSE '' END
EHV Switchgear (GM)	M16DI18	SupportStructures	No Deterioration,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Provides information on structure condition	Based on CONSUPPOR 4 'Substantial Deterioration' 3 'Some Deterioration' 2 'Normal Wear' 1 'No Deterioration'	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT SupportStructures = CASE WHEN CONSUPPOR = 4 THEN 'Substantial Deterioration' WHEN CONSUPPOR = 3 THEN 'Some Deterioration' WHEN CONSUPPOR = 2 THEN 'Normal Wear' WHEN CONSUPPOR = 1 THEN 'No Deterioration' ELSE '' END
EHV Switchgear (GM)	M16DI19	PartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	Provides information on any electrical discharge from the asset resulting from insulation breakdown or insufficiency	Based on the latest condition (p.CONDDISC) and all past conditions (dh.CONDDISC) of the asset. If p.CONDDISC is 4 OR dh.CONDDISC is equal or greater than 4 then it's "High (Confirmed)" If p.CONDDISC is 4 OR dh.CONDDISC is less than 4 then it's "High (Confirmed)" If dh.CONDDISC greater than 1 then "Medium" If p.CONDDISC is NULL AND dh.CONDDISC is less or equal to 1 then "Low" Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT PartialDischarge = CASE WHEN p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)' WHEN p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)' WHEN dh.CONDDISC > 1 THEN 'Medium' WHEN dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low' ELSE '' END
EHV Switchgear (GM)	M16DI20	DuctorTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Provides information on the results of a ductor test	Based on the ductor test result which is calculated from the DUCTORREA, DUCTORREB and DUCTORREC latest condition values. When their average value is greater than 0 and their minimum value is not equal to zero then the NumericResult is set to the sum of minimum and maximum values derived by the average then mutiplied by one hundred. NumericResult is set to zero for any other cases.If the Ductor test result is above 100 '> 10% Deterioration from New'If the Ductor test result is above 20 but less than or equal to 100 'Up to 10% Deterioration from New'If the Ductor test result is above 0 but less than or equal to 20 'As New' . Otherwise leave blank	REGdb	APR16.Condition_Dim	MeasureNameANDMeasureValue	SELECT b.EQUIPNO, DuctorTest = CASEWHEN b.NumericResult > 100 THEN '> 10% Deterioration from New'WHEN b.NumericResult > 20 AND b.NumericResult <= 100 THEN 'Up to 10% Deterioration from New'WHEN b.NumericResult > 0 AND b.NumericResult <= 20 THEN 'As New'ELSE '' ENDINTO #DuctorTestFROM (SELECT EQUIPNO, CASE WHEN AVG(MeasureValue) > 0 AND MIN(MeasureValue) <> 0 THEN ((MAX(MeasureValue) - MIN(MeasureValue)) / AVG(MeasureValue)) * 100 ELSE 0 END AS NumericResult FROM (SELECT EQUIPNO, MeasureName, MeasureValue FROM (SELECT EQUIPNO, DUCTORREA, DUCTORREB, DUCTORREC FROM #PivotCond) p UNPIVOT (MeasureValue FOR MeasureName IN (DUCTORREA, DUCTORREB, DUCTORREC)) AS unpvt) a group by a.EquipNo) b
EHV Switchgear (GM)	M16DI21	IRTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	IR Test	Always blank	N/A	N/A	N/A	SELECT '' AS IRTest
EHV Switchgear (GM)	M16DI22	OilTests_GasTests	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Converts output of oil testing into qualitative descripton	125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue <= 50 'As New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue is between 51 and 500 'Up to 10% Deterioration from New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue > 500 ' 10% Deterioration from New', If AcidityValue, MoistureValue or BreakdownValue = '' leave blank	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	See Appendix 4

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Switchgear (GM)	M16DI23	Temperature Readings	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Temperature reading for asset	If DEFECTTEM = 4 'Substantially Above Ambient' If DEFECTTEM = 1 'Ambient or Below' Otherwise 'Ambient or Below'	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT TemperatureReading = CASE WHEN DEFECTTEM = 4 THEN 'Substantially Above Ambient' WHEN DEFECTTEM = 1 THEN 'Ambient or Below' ELSE 'Ambient or Below' END
EHV Switchgear (GM)	M16DI24	TripTest	Fail,Pass	Latest data, per asset	Reports pass fail for trip testing	Based on the latest condition measure of the TRIPVALU1 and the trip time of the switchgear (Value). If TRIPVALU1 is equal or greater than 10 AND less or equal to the Value then 'PASS' If TRIPVALU1 is equal or greater than 10 AND greater than Value then 'FAIL' Blank for any other cases	REGdb (for TRIPVALU1) AND CFM	APR16.Condition_Dim (for TRIPVALU1) AND DBO.SwitchgearTripTime	MeasureValue (for TRIPVALU1) AND Value	SELECT TripTest = CASE WHEN TRIPVALU1 >= 10 AND TRIPVALU1 <= Value THEN 'Pass' WHEN TRIPVALU1 >= 10 AND TRIPVALU1 > Value THEN 'Fail' ELSE '' END
EHV Switchgear (GM)	M16DI25	ReliabilityFactorInput		Latest data, per asset	Modifier applied to Health Score based on specific knowledge of asset	Based on the CBReliability field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	CBReliability	SELECT [CBReliability] as ReliabilityFactorInput
EHV Switchgear (GM)	M16DI26	ReliabilityCollarInput		Latest data, per asset	Minimum health score used as an overide	Based on the ReliabilityCollar field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	ReliabilityCollar	SELECT [ReliabilityCollar] as ReliabilityCollarInput
EHV Switchgear (GM)	M16DI27	NoOfUnits		Latest data, per asset	Number of units per record	1 per record	N/A	N/A	N/A	SELECT 1 AS NoOfUnits
EHV Switchgear (GM)	M16DI28	TypeSafetyRating	Low,Medium,High	Latest data, per asset	Provides the safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESCEquipRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESCEquipRisk	SELECT TypeSafetyRating = Case WHEN ESCEquipRisk = '1 - LOW' THEN 'Low' WHEN ESCEquipRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESCEquipRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
EHV Switchgear (GM)	M16DI29	LocationSafetyRating	Low,Medium,High	Latest data, per asset	Provides the locational safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESQCLocationRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESQCLocationRisk	SELECT LocationSafetyRating = CASE WHEN ESQCLocationRisk = '1 - LOW' THEN 'Low' WHEN ESQCLocationRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESQCLocationRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
EHV Switchgear (GM)	M16DI30	TypeEnvironmentRating	Oil,SF6,Neither	Latest data, per asset	Environment rating	Based on the AttributeValue against the AttributeName equal to "INSULATION": If AttributeValue = 'SF6 GAS' THEN 'SF6' If AttributeValue = 'Oil' Then 'Oil' If AttributeValue = Air or AttributeValue = Resin then 'Neither' Otherwise leave blank	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT TypeEnvironmentRating = CASE WHEN INSULATION = 'SF6 GAS' THEN 'SF6' WHEN INSULATION = 'Oil' THEN 'Oil' WHEN INSULATION IN ('Air', 'Resin') THEN 'Neither' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Switchgear (GM)	M16DI31	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	Proximity to water	Based on the type of insulation (AttributeValue against AttributeName equal to "INSULATION") and the values from the [PROXIMITYRATING(M)] field: If INSULATION is different to "Oil" then "Not Close to Water Course (>120m) or No Oil" If INSULATION is null then blank If [PROXIMITYRATING(M)] is greater than 120 then "Not Close to Water Course (>120m) or No Oil" If [PROXIMITYRATING(M)] is between 80 and 120 then "Moderately Close to Water Course (between 80m and 120m)" If [PROXIMITYRATING(M)] is greater or equal to 40 and less than 80 then "Close to Water Course (between 40m and 80m)" If [PROXIMITYRATING(M)] is less than 40 then "Very Close to Water Course (<40m)" Blank for any other cases	STGDW04 AND CFM	NPL_NonCritical_Dim AND EHV_Switchgear_(GM)_GIS	AttributeValue AND [PROXIMITYRATING(M)]	SELECT ProximityRating = CASE When INSULATION <> 'Oil' then 'Not Close to Water Course (>120m) or No Oil' When INSULATION is NUll then '' When [PROXIMITYRATING(M)]>120 then 'Not Close to Water Course (>120m) or No Oil' When [PROXIMITYRATING(M)]<=120 AND [PROXIMITYRATING(M)]>=80 then 'Moderately Close to Water Course (between 80m and 120m)' When [PROXIMITYRATING(M)]<80 AND [PROXIMITYRATING(M)]>=40 then'Close to Water Course (between 40m and 80m)' When [PROXIMITYRATING(M)]<40 then'Very Close to Water Course (<40m)' Else '' End
EHV Switchgear (GM)	M16DI32	MaximumDemand		Latest data, per asset	Maximum Demand	Based on the [Maximum Demand Load] field from the EHV_Switchgear_(GM)_Load table	CFM	DBO.EHV_Switchgear_(GM)_Load	[Maximum Demand Load]	SELECT [Maximum Demand Load] AS MaximumDemand
EHV Switchgear (GM)	M16DI33	NetworkType	Secure,Unsecure	Latest data, per asset	NetworkType	Always 'Secure'	N/A	N/A	N/A	SELECT 'Secure' AS NetworkType
EHV Switchgear (GM)	M16DI34	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	Determine access condition of asset	If EquipSituation is 'Outdoor' or 'GRP' or ConfinedSpace is 'Type A Confined Space' or 'No Confined Space' the access rating is 'Type A Criteria - Normal Access'. If ConfinedSpace is 'Type B (24 Hours)' or 'Type B (Out Of Hours)' the access rating is 'Type B Criteria - Constrained/Confined'. If ConfinedSpace is 'Type C Confined Space' then the access rating is 'Type C Criteria - Underground'. otherwise blank	STGDW04	Equip_Dim and Location_Dim	EquipSituation and ConfinedSpace	SELECT AccessFinancialRating = CASE WHEN EquipSituation IN ('Outdoor', 'GRP') OR ConfinedSpace IN ('Type A Confined Space', 'No Confined Space') THEN 'Type A Criteria - Normal Access' WHEN ConfinedSpace IN ('Type B (24 Hours)', 'Type B (Out Of Hours)') THEN 'Type B Criteria - Constrained/Confined' WHEN ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' ELSE '' END
EHV Switchgear (GM)	M16DI35	Bunding	Bunded,Not Bunded	Latest data, per asset	Determines if the asset is not bunded	Determine if bunding exists for the selected asset classes	STGDW04	Equip_Dim	EqipClass, EquipStatus	SELECT DISTINCT EDM.EQUIP_NO, Bunding = CASE WHEN EDM.Equip_NO IS Not NULL THEN 'Bunded' ELSE 'Not Bunded' END FROM #AssetCategoryList EDM INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] ED ON EDM.EQUIP_NO = ED.EquipNo and ED.IsRowCurrent = 1 INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] BD ON ED.SiteNo = BD.SiteNo and ed.DstrctCode = BD.DstrctCode AND BD.EquipClass = 'BN' AND BD.IsRowCurrent = 1
EHV Switchgear (GM)	M16DI36	ReplacedMovingPortion	Yes,No	Latest data, per asset	Determines if the moving portion of the switchgear has been replaced	If AttributeValue =Y then 'Yes', if AttributeValue = N then 'No' Blank for any other cases	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT ReplacedMovingPortion = CASE WHEN AttributeValue = 'Y' THEN 'YES' WHEN AttributeValue = 'N' THEN 'NO' ELSE '' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI1	TXAssetID		Latest data, per asset	TXAssetID	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2014_5	Equip_No	SELECT Equip_No AS Asset ID
EHV Transformer	M17DI57	TCAssetID		Latest data, per asset	TCAssetID	Represented by the asset register asset identification number of the TAP Changer (TC) where the TC is the Child of the TX and Commissioned	STGDW04	EQUIP_DIM	Equip_No	INNER JOIN [EGRPSQL01].[STGDW04].[dbo].[EQUIP_Dim] edco on ed.equip_NO = edco.ParentEquip and edco.EQUIPClass='CO' and edco.Equipstatus = 'CO' and edco.isrowcurrent =1
EHV Transformer	M17DI2	SiteName		Latest data, per asset	SiteName	Name of the Site and the DNO	STGDW04	EQUIP_DIM + Age_Profile_Data_Inst_Date_2015_6	EQUIP_Dim Site No + Age Profile DNO	eqd.Sitename + ' ' + edd.DNO AS Site Name
EHV Transformer	M17DI3	AssetName		Latest data, per asset	AssetName	Name of the asset and equipment Class	STGDW04	EQUIP_DIM	Asset name + Asset Class	eqd.AssetName + ' ' + eqd.equipclass AS Asset Name,
EHV Transformer	M17DI4	TapChanger Manufacturer_Model		Latest data, per asset	TapChangerManufacturer_Model	Name of the make and model of the TC	STGDW04	EQUIP_Dim	Manufacturer + ManufModel	tcd.[Manufacturer] + ' ' + tcd.[ManufModel] AS TapChangerManufacturer_Model,
EHV Transformer	M17DI5	HealthIndexAssetCategory	EHV Transformer	Latest data, per asset	HealthIndexAssetCategory	Always '132kV Transformer' as selected as OFGEMRow = 101 from Age profile 2014/15	RegDB	Age_Profile_Data_Inst_Date_2014_5	Ofgem_row	WHEN ofgem_Row = '101' Then '132kV Transformer'
EHV Transformer	M17DI6	AssetRegisterCategory	33kV Transformer (GM),66kV Transformer (GM)	Latest data, per asset	AssetRegisterCategory	Based on Voltage it will always be 132kV Transformer (GM)	STGDW04	NonCriticalDIM	Where attribute name = PWV1 (Primary winding Voltage 1)	AssetRegisterCategory = Case when ncd.attributevalue = '132kV' then '132kV Transformer (GM)'when ncd.attributevalue = '33kV' then '33kV Transformer (GM)'when ncd.attributevalue = '66kV' then '66kV Transformer (GM)'when ncd.attributevalue = '22kV' then '33kV Transformer (GM)'when ncd.attributevalue = '20kV' then '33kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '33kV' then '33kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '66kV' then '66kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '132kV' then '132kV Transformer (GM)'Else ncd.attributevalueEnd,
EHV Transformer	M17DI7	DistanceFromCoast		Latest data, per asset	DistanceFromCoast	Distance from coast to asset	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
EHV Transformer	M17DI8	Altitude		Latest data, per asset	Altitude	From External list created by TCS Lookup on Equipment ID	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	within SQL it is (SELECT '' AS Altitude) to give blank space
EHV Transformer	M17DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	From External list created by TCS Lookup on Equipment ID	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT '' AS CorrosionCategory
EHV Transformer	M17DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Indoor_Outdoor	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE 'Outdoor' END
EHV Transformer	M17DI11	Utilisation		Latest data, per asset	Utilisation	The demand for the site divided by the number of transformers on the site divided by the Transformer rating.	STGDW04	rating from Noncritical DIM	See prep spread sheet for data quality selection of Rating value from (MAXRATING, ONANRATING, OFAFRATING etc.)	

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI12	Avg.NumberTapsperDay		Latest data, per asset	Avg.NumberTapsperDay	From the OPSTATS Table the First and last Tapchange records are used The Average is Calculated from the Cummalative values If the Average is out of Range (0-100) then the Aveage between the last two readings is Used If this is also out of range then the BLANK (for 2014/15 measures before 20150401 are excluded)	STGDW04	Condition_dim	where meaurename = TAPREADIN	See Appendix 2
EHV Transformer	M17DI13	TransformerExpectedLifeSubdivision	Transformer - Pre 1980,Transformer - Post 1980	Latest data, per asset	TransformerExpectedLifeSubdivision	Set as Either Pre 1980 or Post 1980 based on Year of manufacture. If Year MANUF (YYYY) is less than 1980 then "Pre1980" else Post 1980	STGDW04	Equip_Dim	YEARMANUF	TransformerExpectedLifeSubdivision = CASE WHEN left (edd.inst_date, 4) < 1980 THEN 'Transformer - Pre 1980' ELSE 'Transformer - Post 1980' END,
EHV Transformer	M17DI14	TransformerAge		Latest data, per asset	TransformerAge	Calculate the age in years from the current date and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6 otherwise use Comm date (AGE CAN NOT BE blank	STGDW04	Age_Profile_Data_Inst_Date_2015_6 or EQUIP_Dim if Instdate is NULL	Inst date /Commdate	TransformerAge = Case when edd.inst_date is Null then ISNULL(CAST (datediff(DD,(convert (char (8),eqd.commdate, 111)),GetDate())/365.25 as float), '') else cast (datediff(DD, edd.inst_date ,'2015-04-01')/365.25 as float)end ,
EHV Transformer	M17DI15	TapchangerAge		Latest data, per asset	TapchangerAge	As there is no Instdate for Tap changers the rule is different than that for Transformers If the 8 digit Commdate is the same year as the 4 digit Year of manufacture we use the Commdate to calculate age Otherwise We use the Year of Manufacture unless it is NULL in which case we use the Commdate	STGDW04	EQUIP_DIM	YearManuf, Commdate	TapchangerAge = Case when tc.Yearmanuf = left(tc.commdate, 4) then cast (datediff(DD,(convert (char (8),(tc.CommDate*1), 111)),'2015-04-01')/365.25 as FLOAT) when tc.Yearmanuf is not NULL then cast (datediff(DD,(convert (char (4),(tc.Yearmanuf*1), 111)),'2015-04-01')/365.25 as FLOAT) when tc.Yearmanuf is NULL and tc.CommDate is not NULL then cast (datediff(DD,(convert (char (8),(tc.commdate), 111)),'2015-04-01')/365.25 as FLOAT) when tc.CommDate is NULL and tc.Yearmanuf is NULL then '' Else '' end ,
EHV Transformer	M17DI16	MainTankCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	MainTankCondition	**Main Tank External Condition rule** Where Either the Oil containment Condition is 4 or the Housing condition is 4 then Substantial Deterioration Where the above is Not true but the Weighted Top up values in the previous 10 years exceed 1435 then "Substantial Deterioration" Else Where Either the Oil containment Condition is 3 or the Housing condition is 3 then "Some Deterioration" Where the above is Not true but the Weighted Top up values in the previous 10 years exceed 410 then "Some Deterioration" Else Where the two condition items are no more than 2 and there is either no top up values or the Weighted Top up values in the previous 10 years is <=410 then Normal	STGDW04	Condition_Dim	MeasureName AS OILCONTA and DEFECTCOM and DEFECTGSK and DEFECTSIT and DEFECTOLE	See Appendix 3

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI17	Coolers_RadiatorCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Coolers_RadiatorCondition	Using only the Condition measures recorfe3d against the TX's Cooler equipment record. **Substantial deterioration** exist if ANY of the Four Condition Points "Oil Containment", "Condition of Housing " or "Condition of Cooler" or "Fan condition" is a 4 OR If three of the above four condition points have a value of 3 or More **Some deterioration** exist if any of the above four condition points have a value of 3 or more OR if there is an outstanding pump defect , or Severe Oil leak defect or fan defect or Pump defect**Normal Wear** is Identified by the presence of only values 1 or 2 for Condition and no outstanding defects . Otherwise BLANK	STGDW04	Condition_Dim		SELECT p.TXAssetID,'CoolerCondition' = case When p.OILCONTA = 4 or P.CONDHOUS = 4 or p.CONDCOOL = 4 or p.CONDPPFAN = 4 then 'Substantial Deterioration' When P.CONDHOUS >2 and p.CONDCOOL >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and p.CONDCOOL >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and P.CONDHOUS >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and P.CONDHOUS >2 and p.CONDCOOL >2 then 'Substantial Deterioration' When p.OILCONTA >2 or P.CONDHOUS >3 or p.CONDFAN >2 or p.CONDOPUMP >2 or p.CONDCOOL >2 or p.CONDPPFAN >2 or p.DEFSEVOIL = 4 or p.DEFECTCOF = 4 or p.DEFECTCOL = 4 or p.DEFWPUMP = 4 then 'Some Deterioration' When p.OILCONTA = 2 or P.CONDHOUS = 2 or p.CONDFAN = 2 or p.CONDOPUMP = 2 or p.CONDCOOL = 2 or p.CONDPPFAN = 2 then 'Normal Wear' When p.OILCONTA = 1 or P.CONDHOUS = 1 or p.CONDFAN = 1 or p.CONDOPUMP = 1 or p.CONDCOOL = 1 or p.CONDPPFAN = 1 then 'Normal Wear' Else '' End
EHV Transformer	M17DI18	BushingsCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	BushingsCondition	Substantial deterioration exists if either there is a Condition 4 or an outstanding defect for the Bushings Otherwise if the Bushing condition is 3 then there is some deterioration otherwise a Value of 2 or 1 indicates normal wear	STGDW04	Condition_Dim		,BushingsCondition = Case When ptxc.CONDBUSH = 4 or ptxc.DEFBUSH = 4 then 'Substantial Deterioration' When ptxc.CONDBUSH = 3 then 'Some Deterioration' When ptxc.CONDBUSH IN (1,2) then 'Normal Wear' Else '' End
EHV Transformer	M17DI19	KioskCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	KioskCondition	If Kiosk condition is 4 then "substantial Deterioration " if Kiosk condition is 3 then "Some deterioration" if the condition is 1 or 2 then "Normal Wear " otherwise Blank	STGDW04	Condition_Dim		, KioskCondition = Case When ptxc.CONDEXKIO = 4 then 'Substantial Deterioration' When ptxc.CONDEXKIO = 3 then 'Some Deterioration' When ptxc.CONDEXKIO IN (1,2) then 'Normal Wear' Else '' End
EHV Transformer	M17DI20	CableBoxesCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	CableBoxesCondition	Where the TX has the following defect(DEFECTCAB defective cable box) the Value is "substantial deterioration" Where the TX has the following defects the Value is Some deterioration (DEFECTCOM - Compound leak DEFSEVCOM Severe Compoundleak DEFECTCLE defective cables/Cable cleats) Otherwise 'Normal Wear'	STGDW04	Condition_Dim	Measurename as DEFECTCAB, DEFECTCOM, DEFSEVCOM,DEFECTCLE	CableBoxesCondition = Case When ptxc.DEFECTCAB = 4 then 'Substantial Deterioration' When ptxc.DEFECTCOM = 4 then 'Some Deterioration' When ptxc.DEFSEVCOM = 4 then 'Some Deterioration' When ptxc.DEFECTCLE = 4 then 'Some Deterioration' Else 'Normal Wear' End,
EHV Transformer	M17DI21	TapchangerExternalCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	TapchangerExternalCondition	Where either the condition of the Housing, or the oil Containment is 4 or there is an outstanding defect for SEVERE Oil leaks' or SEVERE corrosion then It is "Substantial deterioration" otherwise if the Oil containment is 2 or 3 or the Housing is condition 3 or there is a defect with either the Fluid sight glass of Conservator sight glass then there is "some deterioration" otherwise if the values are 1 for the condition measures it is "normal wear" else BLANK if we have no condition measure value at all.	STGDW04	Condition_Dim	MeasureName AS CONDHOUSE, DEFSEVCOR, DEFSEVOIL,OILCONTA ,,DEFECTOLE	TapchangerExternalCondition = Case When ptcc.CONDHOUS = 4 then 'Substantial Deterioration' When ptcc.DEFSEVCOR = 4 then 'Substantial Deterioration' When ptcc.DEFSEVOIL = 4 then 'Substantial Deterioration' When ptcc.OILCONTA = 4 then 'Substantial Deterioration' When ptcc.DEFECTSIT = 4 then 'Some Deterioration' When ptcc.DEFCONSIT = 4 then 'Some Deterioration' When ptcc.DEFECTOLE = 4 then 'Some Deterioration' When ptcc.OILCONTA in (2,3) then 'Some Deterioration' When ptcc.CONDHOUS = 3 then 'Some Deterioration' When ptcc.CONDHOUS IN (1,2) or ptcc.OILCONTA =1 then 'Normal Wear' Else '' End,

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17D I22	InternalCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	InternalCondition	Tap changer Internal condition is Substantial deterioration if More than one Condition point is Condition 4. If two out of the following are condition 4 Carbonisation of Old Oil Sludging of Old Oil Condition of Transistor Resistor Tap changer Change-over Switch Condition Otherwise if any of the above conditions are greater than one or there is an outstanding defect on Tap changer operation then then it is "Some Deterioration' if we have the value of 1 for all conditions and no outstanding defect it is Normal wear otherwise it is BLANK	STGDW04	Condition_Dim	MeasureName AS CONDSLU, CONDTCCO, CONDTRRES,OILCARBON,DEFECTTAP	InternalCondition = case When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.CONDTCCO = 4 then 'Substantial Deterioration' When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.CONDTRRES = 4 then 'Substantial Deterioration' When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDTCCO = 4 and ptcc.CONDTRRES = 4 then 'Substantial Deterioration' When ptcc.CONDTCCO = 4 and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDTRRES = 4 and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDSLU >1 or ptcc.CONDTCCO >1 or ptcc.CONDTRRES >1 or ptcc.OILCARBON >1 or DEFECTTAP = 4 then 'Some Deterioration' When ptcc.CONDSLU =1 or ptcc.CONDTCCO =1 or ptcc.CONDTRRES =1 or ptcc.OILCARBON =1 or DEFECTTAP = 1 then 'Normal Wear' Else '' End ,
EHV Transformer	M17D I23	DriveMechanismCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	DriveMechanismCondition	If the "Condition of Motorbrake"or "Condition of TapchangerMotor" or the "mechanism wear" is a 4 then "Substantial Deterioration" otherwise ...If the "Condition of Motor brake" or "Condition of TapchangerMotor" or the "mechanism wear" is a 3 or there is an outstanding defect for "Drive Couplings Defective" or "Drive Shaft Defective" then "Some deterioration" otherwise ...If any condition points is "2" then Normal wear Otherwise ... If any condition points is "1" then "As New "	STGDW04	Condition_Dim	MeasureName AS CONDMOBRA, CONDTCMOT, MECHWEAR,DEFDRCUP,DEFDRVSHA	DriveMechanismCondition = CASE When ptcc.CONDMOBRA = 4 or ptcc.CONDTCMOT = 4 or ptcc.MECHWEAR = 4 then 'Substantial Deterioration' When ptcc.CONDMOBRA = 3 or ptcc.CONDTCMOT = 3 or ptcc.MECHWEAR = 3 or ptcc.DEFDRVCUP = 4 or ptcc.DEFDRVSHA = 4 or ptcc.DEFECTMOT = 4 then 'Some Deterioration' When ptcc.CONDMOBRA = 2 or ptcc.CONDTCMOT = 2 or ptcc.MECHWEAR = 2 then 'Normal Wear' When ptcc.CONDMOBRA = 1 or ptcc.CONDTCMOT = 1 or ptcc.MECHWEAR = 1 then 'As New' Else '' End ,
EHV Transformer	M17D I24	ConditionofSelector_DivertorContacts	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	ConditionofSelector_DivertorContacts	IF either the condition of "Selector-Condition of Contacts" or "Divertor-Condition of Contacts" is 4 then "Substantial Deterioration" Otherwise if either of them have a Value of 3 then "Some Deterioration " Otherwise if either have a Value of 2 then "Normal Wear" otherwise if either have a Value of 1 then "As New" otherwise BLANK	STGDW04	Condition_Dim	MeasureName AS CONDFLEX, CONDFLEXD, CONDFLEXS	ConditionofSelector_DivertorContacts = Case When ptcc.CONDCOND = 4 or ptcc.CONDCONS = 4 then 'Substantial Deterioration' When ptcc.CONDCOND = 3 or ptcc.CONDCONS = 3 then 'Some Deterioration' When ptcc.CONDCOND = 2 or ptcc.CONDCONS = 2 then 'Normal Wear' When ptcc.CONDCOND = 1 or ptcc.CONDCONS = 1 then 'As New' Else '' End ,
EHV Transformer	M17D I25	ConditionofSelector_DivertorBraids	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	ConditionofSelector_DivertorBraids	IF either the condition of "Selector-Condition of flexible Braids" or "Divertor-Condition of Flexible Braids" or "condition of Flexible Braids" is 4 then "Substantial Deterioration" Otherwise if any of them have a Value of 3 then "Some Deterioration " Otherwise if any have a Value of 2 then "Normal Wear" otherwise if any have a Value of 1 then "As New" otherwise BLANK	STGDW04	Condition_Dim	MeasureName AS CONDFLEX, CONDFLEXD, CONDFLEXS	ConditionofSelector_DivertorBraids = Case When ptcc.CONDFLEX = 4 or ptcc.CONDFLEXD = 4 or ptcc.CONDFLEXS = 4 then 'Substantial Deterioration' When ptcc.CONDFLEX = 3 or ptcc.CONDFLEXD = 3 or ptcc.CONDFLEXS = 3 or ptcc.DEFBRAID = 4 then 'Some Deterioration' When ptcc.CONDFLEX = 2 or ptcc.CONDFLEXD = 2 or ptcc.CONDFLEXS = 2 then 'Normal Wear' When ptcc.CONDFLEX = 1 or ptcc.CONDFLEXD = 1 or ptcc.CONDFLEXS = 1 then 'As New' Else '' End,

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI26	MainTransformerPartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	MainTransformerPartialDischarge	For the Transformer equipment item where there is an Outstanding CONDDISC defect then the value is at least "High Not Confirmed " but if additionally the Count of count of the "CONDDISC" measure with a Value of 4 overtime excess 3 then it is "High Confirmed" Else if there is no outstanding defect and the Count of CONDISC measures with a Value of 4 is more than 1 then Medium Else if there is a closed defect then "Low" Else Blank	STGDW05	Condition_Dim	Conddisc	Select * , PartialDischarge = Case When LastDEFECTValue = 4 and Countof4 >= 3 then 'High (Confirmed)' When LastDEFECTValue = 4 and Countof4 < 3 then 'High (Not Confirmed)' When LastDEFECTValue is NULL and Countof4 >= 4 then 'High (Not Confirmed)' ---- added line to compensate for poor data quality on isrowcurrent When Countof4 > 1 then 'Medium' When LastDEFECTValue = 1 then 'Low' Else '' EndFROM (SELECT ap.Equip_No ,count (cdA.Measuredatekey) as 'Countof4' ,cdC.MeasureValue as 'LastDEFECTvalue' FROM [STGDW03].[RRP].[Age_Profile_Data_Inst_Date_2014_5] ap Left join [STGDW04].[dbo].[Condition_dim] cdA on cdA.equipno = ap.equip_no and cdA.measurename = 'CONDDISC' and cdA.Measurevalue = 4 and cdA.islatestmeasure <> 1 ---Get all inspections (not defects) Left join [STGDW04].[dbo].[Condition_dim] cdC on cdC.equipno = ap.equip_no and cdC.measurename = 'CONDDISC' and cdC.islatestmeasure = 1 ----get last where ap.ofgem_row in ('101') group by ap.Equip_No , cdC.measurevalue)b
EHV Transformer	M17DI27	Temperature Readings	Normal,Moderately High,Very High	Latest data, per asset	TemperatureReadings	If we do not have a Winding temperature and we do not have Winding Trip Temperatures or an alarm value Then BLANK However , If we have a Winding temperature and a Both Winding Trip Temperature Settings or an alarm value then. If the Temperature is equal to higher than either Trip value or alarm value then "Very High" If the WINTEMP is 90% or more than the Alarm value then Moderately High Ith the WINTEMP is 80% or more than the Trip values then Moderately High	STGDW04	Condition_Dim		TemperatureReadings = case When Ptxc.WINTEMP is Null or ptxc.WINTEMP = 0 then '' When (ptxc.WTI1ALARM is NULL or ptxc.WTI1ALARM = 0) and (ptxc.WTI2ALARM is NULL or ptxc.WTI2ALARM = 0) and (ptxc.TRIPWTI1 is NULL or ptxc.TRIPWTI1 = 0) and (ptxc.TRIPWTI2 is NULL or ptxc.TRIPWTI2 = 0) then '' when ptxc.WINTEMP >= ptxc.TRIPWTI1 then 'Very High' when ptxc.WINTEMP >= ptxc.TRIPWTI2 then 'Very High' when ptxc.WINTEMP >= ptxc.WTI1ALARM then 'Very High' when ptxc.WINTEMP >= ptxc.WTI2ALARM then 'Very High' when ptxc.WINTEMP >= 0.9* ptxc.WTI1ALARM or ptxc.WINTEMP >= ptxc.WTI2ALARM*.9 then 'Moderately High' when ptxc.WINTEMP >= 0.8* ptxc.TRIPWTI1 or ptxc.WINTEMP >= ptxc.TRIPWTI2*.8 then 'Moderately High' else 'Normal' End

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI28	TapchangerPartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	TapchangerPartialDischarge	For the tap changer equipment item where there is an Outstanding CONDDISC defect then the value is at least "High Not Confirmed " but if additionally the Count of count of the "CONDDISC" measure with a Value of 4 overtime excess 3 then it is "High Confirmed" Else if there is no outstanding defect and the Count of CONDISC measures with a Value of 4 is more than 1 then Medium Else if there is a closed defect then "Low" Else Blank	STGDW04	Condition_Dim	CONDDISC	Select * , PartialDischarge = Case When LastDEFECTValue = 4 and Countof4 >= 3 then 'High Confirmed' When LastDEFECTValue = 4 and Countof4 < 3 then 'High (Not Confirmed)' When LastDEFECTValue is NULL and Countof4 >= 4 then 'High (Not Confirmed)' ---- added line to compensate for poor data quality on isrowcurrent When Countof4 > 1 then 'Medium' When LastDEFECTValue = 1 then 'Low' Else '' EndFROM (SELECT ed.EquipNo ,count (cdA.Measuredatekey) as 'Countof4' ,cdC.MeasureValue as 'LastDEFECTvalue' FROM [STGDW04].[dbo].[Equip_Dim] ed Left join [STGDW04].[dbo].[Condition_dim] cdA on cdA.equipno = ed.equipno and cdA.measurename = 'CONDDISC' and cdA.Measurevalue = 4 and cdA.islatestmeasure <> 1 ---Get all inspections (not defects) Left join [STGDW04].[dbo].[Condition_dim] cdC on cdC.equipno = ed.equipno and cdC.measurename = 'CONDDISC' and cdC.islatestmeasure = 1 -----get last where Ed.equipclass = 'TC' group by ed.EquipNo , cdC.measurevalue)b
EHV Transformer	M17DI29	TransformerTestDate		Latest data, per asset	TransformerTestDate	This the most recent date associated with Dissolved gas readings and Moisture readings	STGDW04	Condition_Dim		Select into Pivot .....cdo.measureName IN('17H2O','04H2O_COR','19ACIDITY','24BDVIEC') and cdo.COMPPOSDATA = ' BMT DG' .....Of the most recent date … .....substring(convert(varchar(14),ttd.TxTestDate) ,7,2)+'/'+substring(convert(varchar(14),ttd.TxTestDate) , 5,2) +'/'+substring(convert(varchar(14),ttd.TxTestDate) ,3,2) as TxTestDate
EHV Transformer	M17DI30	Transformer OilMoisture		Latest data, per asset	TransformerOilMoisture	To cater for the different readings held over time there are two possible values Therefore TransformerOilMoisture is the latest value for measure 17H2O if we have it otherwise the latest value for 04H2O Otherwise BLANK	STGDW04	Condition_Dim		TransformerOilMoisture = Case When ptxc.X04H2O_COR is Null and ptxc.X17H2O is not NULL THEN ptxc.X17H2O When ptxc.X17H2O is NULL and ptxc.X04H2O_COR is NOt NULL THEN ptxc.X04H2O_COR ELSE '' END,
EHV Transformer	M17DI31	Transformer OilAcidity		Latest data, per asset	TransformerOilAcidity	To cater for the different readings held over time there are two possible values Therefore Transformer- Oil Acidity is the latest value for measure 19ACIDITY if we have it otherwise the latest value for OILDGAACI Otherwise BLANK	STGDW04	Condition_Dim		TransformerOilAcidity = Case WHEN ptxc.X19ACIDITY <= 1 then ptxc.X19ACIDITY WHEN (ptxc.X19ACIDITY is Null or Ptxc.X19ACIDITY >1)and ptxc.OILDGAACI is not NULL and ptxc.OILDGAACI <1 THEN ptxc.OILDGAACI ELSE '' End,
EHV Transformer	M17DI32	Transformer OilBreakdown		Latest data, per asset	TransformerOilBreakdown	The latest Transformer oil breakdown measure is used unless it is out of Range i.e. not with 0 to 100 (e.g. 000000105330 has a value of 742 [70+ instances raised, BSSG advised Feb2016])	STGDW04	Condition_Dim		TransformerOilBreakdown = Case WHEN ptxc.X24BDVIEC >= 0 and ptxc.X24BDVIEC <=100 THEN ptxc.X24BDVIEC ELSE '' End,
EHV Transformer	M17DI33	TapchangerTestDate		Latest data, per asset	TapchangerTestDate	The Test Date is the Maximum last date (before 20150401 for 2014/15 model) for one of the any of the following Measures ('04H2O_COR','19ACIDITY','24BDVIEC','17H2O','OILDGAACI') used for Acidity, Moisture or Oil Breakdown against the Tap changer where the measuring point is ' BUCH DG'	STGDW04	Condition_Dim	TC values for	SELECT a.EquipNo, substring(convert(varchar(14),a.MeasureDateKey) ,7,2)+'/'+substring(convert(varchar(14),a.MeasureDateKey) , 5,2) +'/'+substring(convert(varchar(14),a.MeasureDateKey) ,3,2) as TapchangerTestDate INTO #PivotTCDate FROM (SELECT Equip_No, MAX(MeasureDateKey) AS MeasureDateKey FROM EGRPSQL01.[Regdb].[APR16].Condition_Dim CD WHERE (CD.MeasureName IN ('04H2O_COR','19ACIDITY','24BDVIEC','17H2O','OILDGAACI') AND CD.CompPosData <> ' BUCH DG') ---- AND CD.MeasureDateKey < 20150401 removed as does not work with is latest measure GROUP BY cd.EquipNo

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI34	TapchangerOilMoisture		Latest data, per asset	TapchangerOilMoisture	Tap changer moisture is not recorded if all values for both 04H2O_COR and 17H2O are either Null or Zero If both measures are present then 04H2O_COR is used in preference to 17H2O (see Appendix 4 for examples) .If only one of the values are present then that value is there.	STGDW04	Condition_Dim	TC values for	TapchangerOilMoisture = Case When (ptcc.X04H2O_COR = 0 or ptcc.X04H2O_COR is NULL) and (ptcc.X17H2O = 0 or ptcc.X17H2O is NULL) then '' When ptcc.X04H2O_COR is not Null then cast (ptcc.X04H2O_COR as Varchar) When ptcc.X04H2O_COR is Null and ptcc.X17H2O is not NULL then cast (ptcc.X17H2O as Varchar) Else '' End,
EHV Transformer	M17DI35	TapchangerOilAcidity		Latest data, per asset	TapchangerOilAcidity	Tap changer acidity is not recorded if all values for both 19Acidity and OILDGAACI are either Null or Zero If both measures are present then 19Acidity is used in preference to OILDGAACI .If only one of the values are present then that value is there.	STGDW04	Condition_Dim	TC values for	TapchangerOilAcidity = Case When (ptcc.X19ACIDITY = 0 or ptcc.X19ACIDITY is NULL) and (OILDGAACI = 0 or OILDGAACI is NULL) then '' When ptcc.X19ACIDITY is not Null and cast(ptcc.X19ACIDITY as FLOAT) <10 then cast (ptcc.X19ACIDITY as Varchar) When ptcc.X19ACIDITY is Null and OILDGAACI is not NULL and OILDGAACI <10 then cast (OILDGAACI as Varchar) else '' End,
EHV Transformer	M17DI36	TapchangerOilBreakdown		Latest data, per asset	TapchangerOilBreakdown	The latest tap changer oil breakdown measure is used unless it is out of Range i.e. not with 0 to 100 (see TX rule M25DI32)	STGDW04	Condition_Dim	TC values for	TapchangerOilBreakdown = Case When ptcc.X24BDVIEC is not Null and cast (ptcc.X24BDVIEC as FLOAT) >= 0 and cast (ptcc.X24BDVIEC as float) <=100 then cast (ptcc.X24BDVIEC as Varchar) else '' End
EHV Transformer	M17DI37	FFATestDate		Latest data, per asset	FFATestDate	The Test Date is the Maximum last date (before 20150401 for 2014/15 model)	STGDW04	Condition_Dim	TC values for	Where measurename = '28FFA' and measuredatekey > 20050400 and measuredatekey < 20150400 and CompPosdata = ' BMT DG' and measurevalue <> 0 order by equipno, measuredatekey
EHV Transformer	M17DI38	FFAppm		Latest data, per asset	FFAppm	The FFA Value is taken from the Measure 28FFA against the Transformer where the measuring point is ' BMT DG' against the Transformer NO measure over 10 years old is Included. The Average FFA is used , unless the last measure is Higher than the Average in which case the latest measure is used (See appendix 5 for example logic)	STGDW04	Condition_Dim		Where measurename = '28FFA' and measuredatekey > 20050400 and measuredatekey < 20150400 and CompPosdata = ' BMT DG' and measurevalue <> 0 order by equipno, measuredatekey (FOR FURTHER LOGIC SEE APPENDIX 5)
EHV Transformer	M17DI39	ReliabilityFactorInput		Latest data, per asset	ReliabilityFactorInput	Always blank	N/A	N/A	N/A	N/A
EHV Transformer	M17DI40	ReliabilityCollarInput		Latest data, per asset	ReliabilityCollarInput	Always Blank	N/A	N/A	N/A	N/A
EHV Transformer	M17DI41	NoOfUnits		Latest data, per asset	NoOfUnits	Always 1	N/A	N/A	N/A	N/A
EHV Transformer	M17DI42	OilSampleDate		Many Rows Per Asset	OilSampleDate	The latest date associated with one of the following measures against the transformer ('05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6') where the measuring point is = ' BMT DG') Converted to format DD/MM/YYYY	STGDW04	Condition_Dim	'05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6'	,'OilSampleDate' = Case when aa.measuredatekey is Null then '' when aa.measuredatekey = 0 then '' Else RIGHT (aa.measuredatekey ,2) +'/'+ Substring(Cast(aa.measuredatekey as VARCHAR),5,2) + '/' + Left(aa.measuredatekey,4) End ……..... ..... (cd.Measurename IN ('05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6') and cd.CompPosData = ' BMT DG') and cd.measuredatekey > 20060000 and cd.measuredatekey < 20150401
EHV Transformer	M17DI43	HydrogenH2		Many Rows Per Asset	HydrogenH2	The latest valid value for '05DG_H2' in the last 10 Years	STGDW05	Condition_Dim	05DG_H2	, HydrogenH2 = Case when aa.measurevalue >= 0 and aa.measurevalue is not NULL then aa.MeasureValue else '' end
EHV Transformer	M17DI44	AcetyleneC2H2		Many Rows Per Asset	AcetyleneC2H2	The latest valid value for '09DG_C2H2' in the last 10 Years	STGDW06	Condition_Dim	09DG_C2H2	, AcetyleneC2H2 = Case when cast (P.X09DG_C2H2 as FLOAT) >= 0 and P.X09DG_C2H2 is not NULL then P.X09DG_C2H2 else '' end

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI45	EthyleneC2H4		Many Rows Per Asset	EthyleneC2H4	The latest valid value for '08DG_C2H4' in the last 10 Years	STGDW07	Condition_Dim	08DG_C2H4	, EthyleneC2H4 = Case when cast (P.X08DG_C2H4 as FLOAT) >= 0 and P.X08DG_C2H4 is not NULL then P.X08DG_C2H4 else '' end
EHV Transformer	M17DI46	MethaneCH4		Many Rows Per Asset	MethaneCH4	The latest valid value for '06DG_CH4' in the last 10 Years	STGDW08	Condition_Dim	06DG_CH4'	, MethaneCH4 = Case when cast (P.X06DG_CH4 as FLOAT) >= 0 and P.X06DG_CH4 is not NULL then P.X06DG_CH4 else '' end
EHV Transformer	M17DI47	EthaneC2H6		Many Rows Per Asset	EthaneC2H6	The latest valid value for '07DG_C2H6' in the last 10 Years	STGDW09	Condition_Dim	07DG_C2H6	,EthaneC2H6 = Case when cast (P.X07DG_C2H6 as FLOAT) >= 0 and P.X07DG_C2H6 is not NULL then P.X07DG_C2H6 else '' end
EHV Transformer	M17DI48	TypeSafetyRating	Low,Medium,High	Latest data, per asset	TypeSafetyRating	EquipTypeSafetyRating is calculated as 'Low' if the ESCEquipRisk for the asset, is 'Low', 'Medium' if the ESCEquipRisk for the asset, is 'Medium' and 'High' if the ESCEquipRisk for the assets 'High', Note 'Very High' is transformed to 'High' as per data specification. otherwise it is left blank.	STGDW04	ESQCMeasures_Dim		TypeSafetyRating = Case when esq.ESCEquipRisk = '1 - LOW' then 'Low' when esq.ESCEquipRisk = '2 - MEDIUM' then 'Medium' when esq.ESCEquipRisk = '3 - HIGH' then 'High' when esq.ESCEquipRisk = '4 - V.HIGH' then 'High' Else '' END,
EHV Transformer	M17DI49	LocationSafetyRating	Low,Medium,High	Latest data, per asset	LocationSafetyRating	EquipLocationSafetyRating is calculated as 'Low' if the ESQCLocationRisk for the asset, is 'Low', 'Medium' if the ESQCLocationRisk for the asset, is 'Medium' and 'High' if the ESQCLocationRisk for the asset, is 'High', Note 'Very High' is transformed to 'High' as per data specification. otherwise it is left blank.	STGDW04	ESQCMeasures_Dim		LocationSafetyRating = Case when esq.ESQCLocationRisk = '1 - LOW' then 'Low' when esq.ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when esq.ESQCLocationRisk = '3 - HIGH' then 'High' when esq.ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' END,
EHV Transformer	M17DI50	SizeEnvironmentRating	33/20kV >20MVA CMR equivalent,33/20kV >10MVA and <=20MVA CMR equivalent,33/20kV <=10MVA CMR equivalent,33/11 or 6.6kV >20MVA CMR equivalent,33/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,33/11 or 6.6kV <=10MVA CMR equivalent,66/20kV >20MVA CMR equivalent,66/20kV >10MVA and <=20MVA CMR equivalent,66/20kV <=10MVA CMR equivalent,66/33kV,66/11/11kV,66/11 or 6.6kV >20MVA CMR equivalent,66/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,66/11 or 6.6kV <=10MVA CMR equivalent	Latest data, per asset	SizeEnvironmentRating	Based on the Value of ; PWV1 and the First Secondary Winding Voltage The Maximum Rating (RATINGMAXCON) and The second secondary winding Voltage The Size environment rating is determined (see table Appendix 6)	STGDW04	NPL_NonCritical_Dim	PWV1 SWKV1 SWKV2 RATINGMAXCON	See Appendix 6

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17DI51	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	ProximityRating		Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets
EHV Transformer	M17DI52	Bunding	Bunded,Not Bunded	Latest data, per asset	Bunding	Determine if bunding exists for the TX by comparing Plant numbers (excluding the first two characters) for the Bund on the site to the TX on the Site When Know exceptions exist they are catered for e.g. Certain site numbers and Equipment Numbers	N/A	N/A	N/A	SELECT ed.Equip_No, Bunded = Case When bd.plantno is Not Null then 'Bunded' When tx.Siteno in ('008457','008458','008468','008527','008563','0H4015','0H8051') then 'Bunded' -----Known Sites where Bund holds "T1/T2" or something else that identifies a Holistic Bund in Name When ed.equip_no in ('000000103234', '000003218989') then 'Bunded' ------ Peculiar site with many bunds and TX and data errors rendering it not programmatically discernible. Else 'Not Bunded' End FROM [EGRPSQL01].[STGDW03].[RRP].[Age_Profile_Data_Inst_Date_2014_5] ed LEFT JOIN [EGRPSQL01].[STGDW04].[dbo].[Equip_Dim] TX on ed.equip_NO = tx.equipNO and tx.IsRowCurrent = 1 LEFT JOIN [EGRPSQL01].[STGDW04].[dbo].[Equip_Dim] bd on bd.Equipclass = 'BN' and (RIGHT(bd.Plantno,2) = RIGHT(tx.Plantno,2)) and tx.siteno = bd.siteno and bd.isrowcurrent = 1 and bd.equipstatus = 'CO'
EHV Transformer	M17DI53	MaximumDemand		Latest data, per asset	MaximumDemand	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENmAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENmAC analysis in Alfresco spreadsheets
EHV Transformer	M17DI54	NetworkType	Secure,Unsecure	Latest data, per asset	NetworkType	Always 'Secure'	N/A	N/A	N/A	SELECT 'Secure' AS NetworkType

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
EHV Transformer	M17D I55	TypeFinancialRating	33/20kV >20MVA CMR equivalent,33/20kV >10MVA and <=20MVA CMR equivalent,33/20kV <=10MVA CMR equivalent,33/11 or 6.6kV >20MVA CMR equivalent,33/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,33/11 or 6.6kV <=10MVA CMR equivalent,66/20kV >20MVA CMR equivalent,66/20kV >10MVA and <=20MVA CMR equivalent,66/20kV <=10MVA CMR equivalent,66/33kV,66/11/11kV,66/11 or 6.6kV >20MVA CMR equivalent,66/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,66/11 or 6.6kV <=10MVA CMR equivalent	Latest data, per asset	TypeFinancialRating	Transformers this is the same value as same as Size Environment rating	STGDW04	NPL_NonCritical_Dim	PWV1 SWKV1 SWKV2 RATINGMAXCON	See Appendix 6
EHV Transformer	M25D I56	AccessFinancialRating	Type A Criteria - Normal Access, Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	AccessFinancialRating	If Equipment is Outdoor then normal access else check location record for Equipment if Type C then type C underground else if type B then Type B else "no confined space" then normal, else blank	STGDW04	Equipment Dim and Location DIM , NPL_NonCritical_Dim	AttributeValue	AccessFinancialRating = Case when eqd.equipSituation IN ('Outdoor', 'GRP') Then 'Type A Criteria - Normal Access' when ld.ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' when ld.ConfinedSpace IN ('Type B (24 Hours)' , 'Type B (Out Of Hours) ') Then 'Type B Criteria - Constrained/Confined' When ld.ConfinedSpace IN ('No Confined space' , 'Type A Confined Space') Then 'Type A Criteria - Normal Access' ELSE '' END --- ie. all equipsituation of NULL or Indoor where Confined space is NULL

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Fittings	M18DI 1	AssetID		Latest data, per asset	EAM unique asset identifier created from the tower asset identifier	Created by concatenating the asset identification number of the tower and a suffix. Each tower will have between one and three fitting records, based on the equip_classifx4 field from Ellipse (MSF600 table). If equip_classifx4 from the tower record contains 34 then two unique records will be created: Asset ID + "-FIT1" and Asset ID + "-FIT2". If equip_classifx4 contains 35 then three unique records will be created: Asset ID + "-FIT1", Asset ID + "-FIT2" and Asset ID + "-FIT3". For any other cases only one record will be created: Asset ID + "-FIT1".	STGDW03ANDSTGDW01	RRP.Age_Profile_Data_Inst_Date_2015_6ANDMSF600	Equip_NoANDequip_classifx4	SELECT AssetID = CASE WHEN CirNo = 1 THEN AssetID+'-FIT1'WHEN CirNo = 2 THEN AssetID+'-FIT2'WHEN CirNo = 3 THEN AssetID+'-FIT3'ELSE AssetID END
132kV OHL Fittings	M18DI 2	Route		Latest data, per asset	Route Name	Represented by "RouteNo" in the asset register	STGDW04	Equip_Dim	RouteNo	SELECT Routeno as [Route]
132kV OHL Fittings	M18DI 3	RouteName		Latest data, per asset	Circuit Name	Extracted from the RouteName field	STGDW04	Equip_Dim	RouteName	SELECT RouteName as RouteName
132kV OHL Fittings	M18DI 4	PlantNo.		Latest data, per asset	Asset Plant Number	Extracted from Plant Number field	STGDW04	Equip_Dim	plantno	SELECT plantno as [PlantNo.]
132kV OHL Fittings	M18DI 5	HealthIndexAssetCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always '132kV OHL Fittings'	N/A	N/A	N/A	SELECT '132kV OHL Fittings' as HealthIndexAssetCategory
132kV OHL Fittings	M18DI 6	AssetRegisterCategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Always "132kV Fittings"	N/A	N/A	N/A	SELECT '132kV Fittings' as AssetRegisterCategory
132kV OHL Fittings	M18DI 7	DistanceFromCoast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	[132kVSteelTowers_GIS]	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
132kV OHL Fittings	M18DI 8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field. Any negative altitude is taken as 0	CFM	[132kVSteelTowers_GIS]	ALTITUDE(M)	SELECT Altitude = CASE WHEN ld.[ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
132kV OHL Fittings	M18DI 9	CorrosionCategory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	[132kVSteelTowers_GIS]	CorrosionCategoryIndex	SELECT [CorrosionCategoryIndex] as CorrosionCategory
132kV OHL Fittings	M18DI 10	Indoor_Outdoor	Satisfactory,Some Deterioration,Substantial Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
132kV OHL Fittings	M18DI 11	Age	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Age of the fitting in years	Derived from the NPL_NonCritical_Dim table and depends on the fitting number. NPL_NonCritical_Dim contains records for maximum two fittings. Data for Fitting 1 is contained in the first record, Fitting 2 is contained in the second record and Fitting 3 is also recorded against the first record. The age is the calculated based on the FITTYEARC1 (or2) field and if emtpy then INSULYEARC1 (or 2) is used which if empty CCT1(or 2)DATE field is used. If these three fields are all empty then the installation date of the tower is used as the fitting date	STGDW04	[NPL_NonCritical_Dim]	attributeValue	SELECT Age = CASE WHEN CirNo IN (1,3) THEN abs(2016.0 - isnull(FITTYEARC1, isnull(INSULYEARC1, isnull(CCT1DATE,isnull(CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END,''))))) WHEN CirNo =2 THEN abs(2016.0 - isnull(FITTYEARC2, isnull(INSULYEARC2, isnull(CCT2DATE,isnull(CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END,''))))) else '' End

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Fittings	M18DI12	TowerFittingsCondition	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Condition of the tower fittings	Fitting related condition is stored as one or two records per tower. If the tower has only one set of fittings (see AssetID business rules) then one condition record will exist. If the tower has two or three fitting records then two condition records will exist. In cases where three sets of fittings exist then the first and third fitting conditions will be stored against the first condition record while the condition of the second fitting will be stored against the second condition record. The condition of the tower fittings is based on the worst latest condition (MeasureName is FITTWEA1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFECTFI1(or 2)).If FITTWEA1(or 2) is 1 then "As New", if 2 then "Normal Wear", if FITTWEA1(or 2) is 3 OR DEFECTFI1 is 4 then "Some Deterioration", if FITTWEA1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue	TowerFittingsCondition = CASE WHEN CirNo IN (1,3) THEN CASE WHEN FITTWEA1 = '1' THEN 'As New' WHEN FITTWEA1 = '2' THEN 'Normal Wear' WHEN FITTWEA1 = '3' OR DEFECTFI1 >=0 THEN 'Some Deterioration' WHEN FITTWEA1 = '4' THEN 'Substantial Deterioration' ELSE ''ENDWHEN CirNo = 2 THEN CASE WHEN FITTWEA2 = '1' THEN 'As New' WHEN FITTWEA2 = '2' THEN 'Normal Wear' WHEN FITTWEA2 = '3' OR DEFECTFI2 >=0 THEN 'Some Deterioration' WHEN FITTWEA2 = '4' THEN 'Substantial Deterioration' ELSE ''ENDELSE '' END
132kV OHL Fittings	M18DI13	ConductorFittingsCondition	Yes,Missing	Latest data, per asset	Condition of the conductor fittings	The condition of the conductor fittings is based on the worst latest condition recorded in Condition_Dim table (MeasureName is CONDFIT1(or 2)). If CONDFIT1(or 2) is 1 then "As New", if 2 then "Normal Wear", if 3 then "Some Deterioration", if 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue	SELECT ConductorFittingsCondition = CASE WHEN CirNo IN (1,3) THEN CASE WHEN CONDFIT1 = '1' THEN 'As New' WHEN CONDFIT1 = '2' THEN 'Normal Wear' WHEN CONDFIT1 = '3' THEN 'Some Deterioration' WHEN CONDFIT1 = '4' THEN 'Substantial Deterioration' ELSE ''END WHEN CirNo =2 THEN CASE WHEN CONDFIT2 = '1' THEN 'As New' WHEN CONDFIT2 = '2' THEN 'Normal Wear' WHEN CONDFIT2 = '3' THEN 'Some Deterioration' WHEN CONDFIT2 = '4' THEN 'Substantial Deterioration' ELSE '' END ELSE '' END
132kV OHL Fittings	M18DI14	InsulatorsElectricalCondition	Operable,Inoperable	Latest data, per asset	Electrical condition of the insulators	The electrical condition of the insulators is based on the worst latest condition (MeasureName is INSCORR1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFECTIF1(or 2)). If INSCORR1(or 2) is 1 then "As New", if 2 then "Normal Wear", if INSCORR1(or 2) is 3 OR DEFECTIF1(or 2) is 4 then "Some Deterioration", if INSCORR1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue	InsulatorsElectricalCondition =CASE WHEN CirNo IN (1,3) THEN CASE WHEN INSCORR1 = '1' THEN 'As New' WHEN INSCORR1 = '2' THEN 'Normal Wear' WHEN INSCORR1 = '3' OR DEFECTIF1 >=0 THEN 'Some Deterioration' WHEN INSCORR1 = '4' THEN 'Substantial Deterioration' ELSE ''END WHEN CirNo = 2 THEN CASE WHEN INSCORR2 = '1' THEN 'As New' WHEN INSCORR2 = '2' THEN 'Normal Wear' WHEN INSCORR2 = '3' OR DEFECTIF2 >=0 THEN 'Some Deterioration' WHEN INSCORR2 = '4' THEN 'Substantial Deterioration' ELSE ''END ELSE '' END
132kV OHL Fittings	M18DI15	InsulatorsMechanicalCondition		Latest data, per asset	Mechanical condition of the insulators	The mechanical condition of the insulators is based on the worst latest condition (MeasureName is CONDINST1(or 2)) and also any defects of MeasureValue equal to 4 present in the Condition_Dim table (MeasureName is DEFINS1(or 2)).If CONDINST1(or 2) is 1 then "As New", if 2 then "Normal Wear", if CONDINST1(or 2) is 3 OR DEFINS1(or 2) is 4 then "Some Deterioration", if CONDINST1(or 2) is 4 then "Substantial Deterioration"	REGdb	APR16.Condition_Dim	MeasureValue	SELECT InsulatorsMechanicalCondition =CASEWHEN CirNo IN (1,3) THEN CASE WHEN CONDINST1 = '1' THEN 'As New' WHEN CONDINST1 = '2' THEN 'Normal Wear' WHEN CONDINST1 = '3' OR DEFINS1 >=0 THEN 'Some Deterioration' WHEN CONDINST1 = '4' THEN 'Substantial Deterioration' ELSE ''ENDWHEN CirNo = 2 THEN CASE WHEN CONDINST2 = '1' THEN 'As New' WHEN CONDINST2 = '2' THEN 'Normal Wear' WHEN CONDINST2 = '3' OR DEFINS2 >=0 THEN 'Some Deterioration' WHEN CONDINST2 = '4' THEN 'Substantial Deterioration' ELSE ''ENDELSE '' END
132kV OHL Fittings	M18DI16	ThermalImaging		Latest data, per asset	UKPN does not currently collect this information	Always empty	N/A	N/A	N/A	SELECT '' as ThermalImaging

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Fittings	M18DI17	DuctorTest		Latest data, per asset	UKPN does not currently collect this information	Always empty	N/A	N/A	N/A	SELECT '' as DuctorTest
132kV OHL Fittings	M18DI18	ReliabilityFactorInput	Low,Medium,High	Latest data, per asset	The reliability of the asset	Always 1	N/A	N/A	N/A	SELECT '1' as ReliabilityFactorInput
132kV OHL Fittings	M18DI19	ReliabilityCollarInput	Low,Medium,High	Latest data, per asset	A minimum limit of Health Score, which forms part of a Reliability Modifier	Always 0.5	N/A	N/A	N/A	SELECT '0.5' as ReliabilityCollarInput
132kV OHL Fittings	M18DI20	NoOfUnits		Latest data, per asset	Number of sets of fittings	Always 1	N/A	N/A	N/A	SELECT '1' as NoOfUnits
132kV OHL Fittings	M18DI21	TypeSafetyRating		Latest data, per asset	This addresses the principal characteristics of the equipment and its particular siting	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 2 THEN 'Medium' WHEN dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) IN (3,4) THEN 'High' ELSE '' END
132kV OHL Fittings	M18DI23	LocationSafetyRating	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	This is taken from the "Nature and situation of surrounding land" test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	prd.MSF345	cond_mon_meas AND Measure_Value	SELECT LocationSafetyRating = CASE WHEN ESQCLOC IN ('3','4') THEN 'High' WHEN ESQCLOC = '2' THEN 'Medium' WHEN ESQCLOC = '1' THEN 'Low' ELSE '' END
132kV OHL Fittings	M18DI24	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	[132kVSteelTowers_Load]	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
132kV OHL Fittings	M18DI25	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType
132kV OHL Fittings	M18DI26	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' OR ESQCSpanLocationRiskCode LIKE '%L8%' OR ESQCSpanLocationRiskCode LIKE '%L9%' OR ESQCSpanLocationRiskCode LIKE '%LC%' OR ESQCSpanLocationRiskCode LIKE '%LG%' OR ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Fittings	M18DI 27	TypeFinancialRating			Financial Type	Based on the value of the attribute_value field against the attribute_name values "CONFIG" OR "TOWERTYPE" from the Ellipse Nameplate table. If the attribute_value for "CONFIG" is in this list: 'TN','J','G' then "Tension", if "S" then "Suspension", if "TR" then "Terminal". If the attribute_value for "TOWERTYPE" is in this list: 'D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION' then "Tension", if in this list: 'DT','DT90','DTU','DX','RXS','ST','TERMINAL' then "Terminal", if different or missing then "Suspension".	STGDW01	NPL_NonCritical_Dim	attrib_value	SELECT TypeFinancialRating = CASE WHEN CONFIG IN ('TN','J','G') THEN 'Tension' WHEN CONFIG = 'S' THEN 'Suspension' WHEN CONFIG = 'TR' THEN 'Terminal' ELSE CASE --WHEN TOWERTYPE IN ('D','D10','D2','D2(S)','D2S','D3','DD10','DD2','DD2(S)','DD2S','DDT','DS','S10','S2','SUSPENSION','UNK') THEN 'Suspension' WHEN TOWERTYPE IN('D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION') THEN 'Tension' WHEN TOWERTYPE IN ('DT','DT90','DTU','DX','RXS','ST','TERMINAL') THEN 'Tension'--'Terminal' Terminal is not an allowable value for tower fitting ELSE 'Suspension' END END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Conductor (Tower Lines)	M19DI1	AssetID			EAM unique asset identifier created from the tower asset identifier	Created by concatenating the asset identification number of the tower and a suffix. Each tower will have between one and three conductor records, based on the equip_classifx4 field from Ellipse (MSF600 table). If equip_classifx4 from the tower record contains 34 then two unique records will be created: Asset ID + "-CON1" and Asset ID + "-CON2". If equip_classifx4 contains 35 then three unique records will be created: Asset ID + "-CON1", Asset ID + "-CON2" and Asset ID + "-CON3". For any other cases only one record will be created: Asset ID + "-CON1".	[STGDW03]AND [STGDW01]	[RRP].[Age_Profile_Data_Inst_Date_2015_6] AND[PRD].[MSF600]	equip_no (as AssetID)ANDequip_classifx4	SELECT AssetID = AssetID + case when cirNO = 1 then '-CON1'WHEN cirNO = 2 then '-CON2'WHEN CirNo = 3 then '-CON3'ELSE 'Error' END
132kV OHL Conductor (Tower Lines)	M19DI2	Route			Route Name	Represented by "RouteNo" in the asset register	[STGDW04]	[DBO].Equip_Dim	Routeno	SELECT Routeno as [Route]
132kV OHL Conductor (Tower Lines)	M19DI3	RouteName			Circuit Name	Extracted from the RouteName field	[STGDW04]	[DBO].Equip_Dim	routename	SELECT routename as RouteName
132kV OHL Conductor (Tower Lines)	M19DI4	PlantNo.			Asset Plant Number	Extracted from Plant Number field	[STGDW04]	[DBO].Equip_Dim	plantno	SELECT plantno as [PlantNo.]
132kV OHL Conductor (Tower Lines)	M19DI5	HealthIndexAssetCategory			CNAIM Health Index Asset Category	Always "132kV OHL Conductor (Tower Lines)"	N/A	N/A	N/A	SELECT '132kV OHL Conductor (Tower Lines)' as HealthIndexAssetCategory
132kV OHL Conductor (Tower Lines)	M19DI6	AssetRegisterCategory			CNAIM Asset Register Category	Based on ED1_Row value: if "113" then "132kV OHL (Tower Line) Conductor", "Error" for any other cases	STGDW03	RRP.Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '113' THEN '132kV OHL (Tower Line) Conductor' ELSE 'Error' END
132kV OHL Conductor (Tower Lines)	M19DI7	DistanceFromCoast			Distance of the asset from the coast, measured in km	Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset	CFM	dbo.[132kVSteelTowers_GIS]	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
132kV OHL Conductor (Tower Lines)	M19DI8	Altitude			Altitude of the asset in metres	Extracted from the ALTITUDE(M) field. Any negative altitude is taken as 0	CFM	dbo.[132kVSteelTowers_GIS]	[ALTITUDE(M)]	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
132kV OHL Conductor (Tower Lines)	M19DI9	CorrosionCategory			Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	dbo.[132kVSteelTowers_GIS]	CorrosionCategoryIndex	SELECT [CorrosionCategoryIndex] as CorrosionCategory
132kV OHL Conductor (Tower Lines)	M19DI10	Indoor_Outdoor			Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Conductor (Tower Lines)	M19DI11	ExpectedLifeSubdivision			The type of conductor	Based on the values of attributeValue field against the conductor type (attributeValue = CONDTYPE(1 or 2, depending on the number of conductor sets - see AssetID business rules)). If the corresponding CONDTYPE value has the four characters starting from the 7th position equal to 'ACSR' then 'ACSR - greased', if 'AAAC' then 'AAAC', if 'HDAC' or 'ACCC' or the full value is 'Unknown' then 'Other'. '' for any other cases.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeNameANDattributeValue	SELECT ExpectedLifeSubdivision = CASEWHEN CirNo IN (1, 3) THEN CASE WHEN substring (CONDTYPE,7,4) = 'ACSR' or Substring (CONDTYPE1,7, 4) = 'ACSR' THEN 'ACSR - greased' WHEN substring (CONDTYPE,7,4) = 'AAAC' or substring (CONDTYPE1,7, 4) = 'AAAC' THEN 'AAAC' WHEN CONDTYPE = 'Unknown' OR substring (CONDTYPE,7,4) IN('HDAC','ACCC') Or substring (CONDTYPE1,7, 4) IN('HDAC','ACCC') THEN 'Other' ELSE '' ENDWHEN CirNo = 2 THEN CASE WHEN substring (CONDTYPE,7,4) = 'ACSR' or substring (CONDTYPE2,7, 4) = 'ACSR' THEN 'ACSR - greased' WHEN substring (CONDTYPE,7,4) = 'AAAC' or substring (CONDTYPE2,7, 4) = 'AAAC' THEN 'AAAC' WHEN CONDTYPE = 'Unknown' OR substring (CONDTYPE,7,4) IN('HDAC','ACCC') Or substring (CONDTYPE2,7, 4) IN('HDAC','ACCC') THEN 'Other' ELSE '' ENDELSE '' END
132kV OHL Conductor (Tower Lines)	M19DI12	Age			Age of the conductor in years	Based on the conductor record number (see AssetID business rules). Extracted from the attributeValue field against records with attributeName = 'CCT1DATE' or 'CCT2DATE': the first field holds values for the first and third conductor set ('-CON1' AND '-CON3') while the last field ('CCT2DATE') refers to the second conductor set ('-CON2'). The age is calculated by subtracting the CCT(1 or 2)DATE from 2016. If there is no value then the tower installation date is used, provided it's not greater than '2016-04-01' in which case the age is 0.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeName AND attributeValue	SELECT Age = CASE WHEN CirNo IN (1, 3) THEN abs(2016.0 - isnull(CCT1DATE,CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END)) WHEN CirNo = 2 THEN abs(2016.0 - isnull(CCT2DATE,CASE WHEN inst_date > '2016-04-01' then 2016.0 ELSE (datediff(DD, inst_date ,'2016-04-01')/365.25) + 2016.0 END)) else '' End
132kV OHL Conductor (Tower Lines)	M19DI13	VisualCondition			Conductor condition	Based on the condition values (MeasureValue) recorded against attributes (MeasureName) 'DEFECTCD1'(or 2) and 'DEFECTCI1'(or 2). If latest (up to 01/04/2016) worst values for DEFECTCI(1 or 2) OR DEFECTCD(1 or 2) are equal to 4 then 'Substantial Deterioration'. If value 4 has been recorded against those measures in the past (not the latest values) then 'Some Deterioration'. 'Normal Wear' for any other cases.	[REGdb]	[APR16].[Condition_Dim]	MeasureName AND MeasureValue	SELECT VisualCondition = CASE WHEN DEFECTCD1 = 4 or DEFECTCD2 = 4 or DEFECTCI1 =4 or DEFECTCI2 = 4 THEN 'Substantial Deterioration' WHEN DefHist > 1 THEN 'Some Deterioration' ELSE 'Normal Wear' END
132kV OHL Conductor (Tower Lines)	M19DI14	MidspanJoints			UKPN currently do not collect this asset information	Always empty	N/A	N/A	N/A	SELECT '' as MidspanJoints
132kV OHL Conductor (Tower Lines)	M19DI15	ConductorSampling			UKPN currently do not collect this asset information	Always empty	N/A	N/A	N/A	SELECT '' as ConductorSampling
132kV OHL Conductor (Tower Lines)	M19DI16	CorrosionMonitoringSurvey			Survey result of the conductor corrosion	Based on the latest (up to 01/04/2016) worst condition values (MeasureValue) recorded against attributes (MeasureName) 'CORMON1'(or 2). If 1 then 'Low', if 2 or 3 then 'Medium/Normal', if 4 then 'High'. Empty for any other cases.	[REGdb]	[APR16].[Condition_Dim]	MeasureNameANDMeasureValue	SELECT CorrosionMonitoringSurvey = CASEWHEN CirNo IN (1,3) THEN CASEWHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) = 1 THEN 'Low'WHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) IN(2,3) THEN 'Medium/Normal'WHEN dbo.InlineMax(cast(CORMON1 as int), cast(CORMON1 as int)) = 4 THEN 'High' else '' endWHEN CirNo = 2 THENCASEWHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) = 1 THEN 'Low'WHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) IN(2,3) THEN 'Medium/Normal'WHEN dbo.InlineMax(cast(CORMON2 as int), cast(CORMON2 as int)) = 4 THEN 'High' else '' endElse '' END
132kV OHL Conductor (Tower Lines)	M19DI17	ReliabilityFactorInput			The reliability of the asset	Always 1	N/A	N/A	N/A	SELECT '1' as ReliabilityFactorInput
132kV OHL Conductor	M19DI18	ReliabilityCollarInput			A minimum limit of Health Score, which forms part of a Reliability Modifier	Always 0.5	N/A	N/A	N/A	SELECT '0.5' as ReliabilityCollarInput

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
(Tower Lines)										
132kV OHL Conductor (Tower Lines)	M19DI19	NoOfUnits			Length of span in kilometres	Based on the attributeValue values corresponding to attributeName = 'SPANLENGTH1' or 'SPANLENGTH2', divided by 1000.	[STGDW04]	[DBO].[NPL_NonCritical_Dim]	attributeName AND attributeValue	SELECT NoOfUnits = CASE WHEN CirNo IN (1, 3) THEN cast(SPANLENGTH1 as float)/1000 WHEN CirNo = 2 THEN cast(isnull(SPANLENGTH2, SPANLENGTH1) as float)/1000 else '' end
132kV OHL Conductor (Tower Lines)	M19DI20	TypeSafetyRating			This addresses the principal characteristics of the equipment and its particular siting	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) = 1 THEN 'Low' WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) = 2 THEN 'Medium' WHEN dbo.InlineMax(cast(ESQCEQSP as int), cast(ESQCRISSP as int)) IN (3,4) THEN 'High' ELSE '' END
132kV OHL Conductor (Tower Lines)	M19DI22	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_meas AND Measure_Value	SELECT LocationSafetyRating = CASE WHEN ESQCLOCSP IN ('3','4') THEN 'High' WHEN ESQCLOCSP = '2' THEN 'Medium' WHEN ESQCLOCSP = '1' THEN 'Low' ELSE '' END
132kV OHL Conductor (Tower Lines)	M19DI23	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	[132kVSteelTowers_Load]	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
132kV OHL Conductor (Tower Lines)	M19DI24	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType
132kV OHL Conductor (Tower Lines)	M19DI25	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASE WHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' OR ESQCSpanLocationRiskCode LIKE '%L8%' OR ESQCSpanLocationRiskCode LIKE '%L9%' OR ESQCSpanLocationRiskCode LIKE '%LC%' OR ESQCSpanLocationRiskCode LIKE '%LG%' OR ESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing' ELSE 'Type A Criteria - Normal Access' END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Support	M20DI 1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst _Date_2015_6	Equip_No	SELECT equip_no as AssetID
132kV OHL Support	M20DI 2	Route		Latest data, per asset	Route Name	Represented by "RouteNo" in the asset register	STGDW04	Equip_Dim	RouteNo	SELECT RouteNo as [Route]
132kV OHL Support	M20DI 3	RouteName		Latest data, per asset	Circuit Name	Extracted from the RouteName field	STGDW04	Equip_Dim	RouteName	SELECT RouteName
132kV OHL Support	M20DI 4	PlantNo.		Latest data, per asset	Asset Plant Number	Extracted from Plant Number field	STGDW04	Equip_Dim	plantno	SELECT plantno as [PlantNo.]
132kV OHL Support	M20DI 5	HealthIndexAs setCategory	LV UGB	Latest data, per asset	CNAIM Health Index Asset Category	Always 'EHV OHL Support - Towers'	N/A	N/A	N/A	SELECT '132kV OHL Support - Tower' as HealthIndexAssetCategory
132kV OHL Support	M20DI 6	AssetRegisterC ategory	LV UGB	Latest data, per asset	CNAIM Asset Register Category	Based on [ED1_Row], if "090" then "132kV Tower", else "Error".	STGDW03	Age_Profile_Data_Inst _Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN [ED1_Row] = '113' THEN '132kV Tower' ELSE 'Error' END
132kV OHL Support	M20DI 7	DistanceFrom Coast		Latest data, per asset	Distance From Coast	Distance of the asset from the coast, measured in km. Extracted from DISTANCEFROMCOAST(KM) field from the GIS dataset.	CFM	132kVSteelTowers_GI S	DISTANCEFROMCOAST(KM)	SELECT [DISTANCEFROMCOAST(KM)] as DistanceFromCoast
132kV OHL Support	M20DI 8	Altitude	As New,Normal Wear,Substantial Deterioration,Some Deterioration	Latest data, per asset	Altitude of the asset in metres	Extracted from the ALTITUDE(M) field.	CFM	132kVSteelTowers_GI S	ALTITUDE(M)	SELECT Altitude = CASE WHEN [ALTITUDE(M)] <0 THEN 0 ELSE [ALTITUDE(M)] END
132kV OHL Support	M20DI 9	CorrosionCate gory	None,Present in Pit,Present in Bell Housing	Latest data, per asset	Corrosion Category	Corrosion Category Index (integers between 1 and 5) used for calculating the Corrosion factor. Extracted from the CorrosionCategoryIndex field.	CFM	132kVSteelTowers_GI S	CorrosionCategoryIndex	SELECT CorrosionCategoryIndex as CorrosionCategory
132kV OHL Support	M20DI 10	Indoor_Outdo or	Satisfactory,Some Deterioration,Substantia l Deterioration	Latest data, per asset	Indoor/Outdoor	Always 'Outdoor'	N/A	N/A	N/A	SELECT 'Outdoor' as Indoor_Outdoor
132kV OHL Support	M20DI 11	TowerExpecte dLifeSubdivisio n	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Tower - Expected Life Sub-division	Always 'Steelwork'	N/A	N/A	N/A	SELECT 'Steelwork' as TowerExpectedLifeSubdivision
132kV OHL Support	M20DI 12	TowerSteelwo rkAge	No Deterioration,Minor Deterioration,Major Deterioration	Latest data, per asset	Age of the tower steelwork in years	Taken as the number of years since the installation date of the asset (inst_date field).	STGDW03	Age_Profile_Data_Inst _Date_2015_6	inst_date	SELECT TowerSteelworkAge = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END
132kV OHL Support	M20DI 13	PaintworkExpe ctedLifeSubdiv ision	Yes,Missing	Latest data, per asset	The type of steelwork protective cover	Based on the installation date of the asset, if installed more than 30 years ago then "Paint System - Paint", if 30 years or less then "Paint System - Galvanising"	STGDW03	Age_Profile_Data_Inst _Date_2015_6	inst_date	SELECT PaintworkExpectedLifeSubdivision = case when (CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END) >30 then 'Paint System - Paint' WHEN (CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END) <=30 then 'Paint System - Galvanising' Else '' end
132kV OHL Support	M20DI 14	PaintworkAge	Operable,Inoperable	Latest data, per asset	Age of paintwork in years	Based on the date of the last completed paintwork work order (std_job_no is "LT3041" or "LT4005", completed_code is "AC"). If no paintwork work order exists then based on the asset installation date (inst_date field).	STGDW01 AND STGDW03	MSF620 AND Age_Profile_Data_Inst _Date_2015_6	closed_dt AND inst_date	SELECT PaintworkAge =isnull(CAST (Cast(datediff(DD,(convert (char (8),PaintDate, 111)),GetDate()))/365.25 as int) as nvarchar(max)), CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END)

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Support	M20DI 15	FoundationExpectedLifeSubdivision		Latest data, per asset	Foundation - Expected Life Sub-division	Based on the values of the attribute_value field against the attribute_name value "FOUNDTYPE" from the Ellipse Nameplate table. If attribute_value is in the following list: 'EG','MA','P','WPS','MP' then "Foundation - Earth Grillage", if in this list: 'RM','CR','RC','LB','HB','SC','SP','CSD','STP','MC', 'CBA','EC','PC' then "Foundation - Fully Encased Concrete". If value missing or not found then taken as "Foundation - Fully Encased Concrete".	STGDW01	MSF6A4	attrib_value	SELECT FoundationExpectedLifeSubdivision = Case WHEN FOUNDTYPE IN ('EG','MA','P','WPS','MP') THEN 'Foundation - Earth Grillage' WHEN FOUNDTYPE IN ('RM','CR','RC','LB','HB','SC','SP','CSD','STP','MC','CBA','EC','PC') THEN 'Foundation - Fully Encased Concrete' ELSE 'Foundation - Fully Encased Concrete' END
132kV OHL Support	M20DI 16	FoundationAge		Latest data, per asset	Age of foundation in years	Based on the installation date (inst_date field) of the asset unless there is a work order for foundation refurbishment (std_job_no = "LT4010"), in which case the WO completion date is used.	STGDW01 AND STGDW03	MSF620 AND Age_Profile_Data_Inst_Date_2015_6	closed_dt AND inst_date	SELECT PaintworkAge =isnull(CAST (Cast(datediff(DD,(convert (char (8),FoundationDate, 111)),GetDate())/365.25 as int) as nvarchar(max)), CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END)
132kV OHL Support	M20DI 17	TowerLegs		Latest data, per asset	Latest condition of Tower Legs	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	[APR16].[Condition_Dim]	MeasureValue AND MeasureName	SELECT TowerLegs = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
132kV OHL Support	M20DI 18	Bracings	Low,Medium,High	Latest data, per asset	Latest condition of Bracings	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	[APR16].[Condition_Dim]	MeasureValue AND MeasureName	SELECT Bracings = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
132kV OHL Support	M20DI 19	Crossarms	Low,Medium,High	Latest data, per asset	Latest condition of Crossarms	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	[APR16].[Condition_Dim]	MeasureValueANDMeasureName	SELECT Crossarms = CASE WHEN CONDSTEEL IN (1,2) THEN 'Acceptable'WHEN CONDSTEEL IN (3,4) THEN 'Mechanically Unsafe'ELSE '' END
132kV OHL Support	M20DI 20	Peak		Latest data, per asset	Latest condition of peak	Based on the latest values of the MeasureValue field against the MeasureName value "STEELCON" from the Condition_dim table. If MeasureValue is 1 or 2 then "Acceptable", if 3 or 4 then "Mechanically Unsafe".	REGdb	[APR16].[Condition_Dim]	MeasureValue AND MeasureName	SELECT Peak = CASE WHEN STEELCON IN (1,2) THEN 'Acceptable' WHEN STEELCON IN (3,4) THEN 'Mechanically Unsafe' ELSE '' END
132kV OHL Support	M20DI 21	PaintworkCondition		Latest data, per asset	Latest condition of paint cover	Based on the values of the attribute_value field against the attribute_name value "PAINTCON" from the Condition_dim table. If MeasureValue is 1 then "As New", if 2 then "Slight Rust Breakthrough", if 3 then "Moderate Rust Breakthrough" , if 4 then "Severe Rust Breakthrough" .	REGdb	[APR16].[Condition_Dim]	MeasureValue AND MeasureName	PaintworkCondition = CASE WHEN PAINTCON = 1 THEN 'As New' WHEN PAINTCON = 2 THEN 'Slight Rust Breakthrough' WHEN PAINTCON = 3 THEN 'Moderate Rust Breakthrough' WHEN PAINTCON = 4 THEN 'Severe Rust Breakthrough' ELSE '' END
132kV OHL Support	M20DI 22	FoundationCondition	<50,>=50 and <100,>=100 and <500,>=500 and <1000,>=1000 and <2000,>=2000	Latest data, per asset	Latest condition of foundations	Based on the latest values of the MeasureValue field against the MeasureName values "TWRMUFF", "TWRHCELL" and "TWRTDM" from the Condition_dim table. If the maximum MeasureValue is 1 then "As New", if 2 then "Normal Wear", if 3 then "Some Deterioration" , if 4 then "Substantial Deterioration".	REGdb	[APR16].[Condition_Dim]	MeasureValue AND MeasureName	SELECT FoundationCondition = CASE WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 1 THEN 'As New' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 2 THEN 'Normal Wear' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 3 THEN 'Some Deterioration' WHEN dbo.InlineMax(dbo.InlineMax(TWRMUFF, TWRHCELL), TWRTDM) = 4 THEN 'Substantial Deterioration' ELSE '' END
132kV OHL Support	M20DI 23	ReliabilityFactorInput			The reliability of the asset	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityFactorInput

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV OHL Support	M20DI24	ReliabilityCollarInput			A minimum limit of Health Score, which forms part of a Reliability Modifier. Not used for tower supports	Always empty	N/A	N/A	N/A	SELECT '' as ReliabilityCollarInput
132kV OHL Support	M20DI25	NoOfUnits			Number of tower supports per record	Always 1 unit	N/A	N/A	N/A	SELECT 1 as NoOfUnits
132kV OHL Support	M20DI26	TypeSafetyRating			This addresses the principal characteristics of the equipment and its particular siting.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCEQ" and "ESQCRIS" from the MSF345 table. If the maximum MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_meas AND Measure_Value	SELECT TypeSafetyRating = CASE WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 1 THEN 'Low' WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) = 2 THEN 'Medium' WHEN cfm.dbo.InlineMax(cast(ESQCEQ as int), cast(ESQCRIS as int)) IN (3,4) THEN 'High' ELSE '' END
132kV OHL Support	M20DI28	LocationSafetyRating			This is taken from the “Nature and situation of surrounding land” test in the ESQCR risk assessment. Here duty holders are required to take a view of the risk of danger from interference with the equipment - whether wilful or accidental - in consideration of the environment in which the equipment is placed.	Based on the latest values of the Measure_Value field against the cond_mon_meas values "ESQCLOC" from the MSF345 table. If MeasureValue is 1 then "Low", if 2 then "Medium", if 3 or 4 then "High".	STGDW01	MSF345	cond_mon_measANDMeasure_Value	SELECT LocationSafetyRating = CASEWHEN ESQCLOC IN ('3','4') THEN 'High'WHEN ESQCLOC = '2' THEN 'Medium'WHEN ESQCLOC = '1' THEN 'Low'ELSE '' END
132kV OHL Support	M20DI29	MaximumDemand			Maximum Demand	Maximum electrical load (MVA) for the asset. Extracted from the [Maximum Demand Load] field.	CFM	132kVSteelTowers_Load	[Maximum Demand Load]	SELECT [Maximum Demand Load] as MaximumDemand
132kV OHL Support	M20DI30	NetworkType			Network Type is considered secure (i.e.: the normal load of the asset will be restored without interruption in the event of asset failure.	Always "Secure"	N/A	N/A	N/A	SELECT 'Secure' as NetworkType
132kV OHL Support	M20DI31	TypeFinancialRating			Financial Type	Based on the value of the attrib_value field against the attribute_name values "CONFIG" OR "TOWERTYPE" from the Ellipse Nameplate table. If the attrib_value for "CONFIG" is in this list: 'TN','J','G' then "Tension", if "S" then "Suspension", if "TR" then "Terminal". If the attribute_value for "TOWERTYPE" is in this list: 'D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION' then "Tension", if in this list: 'DT','DT90','DTU','DX','RXS','ST','TERMINAL' then "Terminal", if different or missing then "Suspension".	STGDW01	MSF6A4	attrib_value AND attribute_name	SELECT TypeFinancialRating = CASE WHEN CONFIG IN ('TN','J','G') THEN 'Tension' WHEN CONFIG = 'S' THEN 'Suspension' WHEN CONFIG = 'TR' THEN 'Terminal' ELSE CASE WHEN TOWERTYPE IN('D20','D30','D40','D56','D60','D60J','D90','D90J','DD30','DD60','DD90','DJ','DJT','DJX','DT45','DTV45','S30','S60','SC30','SF60','TENSION') THEN 'Tension' WHEN TOWERTYPE IN ('DT','DT90','DTU','DX','RXS','ST','TERMINAL') THEN 'Terminal' ELSE 'Suspension' END
132kV OHL Support	M20DI32	AccessFinancialRating			Access Financial Rating	Based on the ESQCSpanLocationRiskCode value: if contains "L5", "L8", "L9", "LC", "LG", "LZ", "LR", "LQ", "LW" then "Type B Criteria - Major Crossing". "Type A Criteria - Normal Access" for any other case.	STGDW04	ESQCMeasures_Dim	ESQCSpanLocationRiskCode	SELECT AccessFinancialRating = CASEWHEN ESQCSpanLocationRiskCode LIKE '%L2%' OR ESQCSpanLocationRiskCode LIKE '%L5%' ORESQCSpanLocationRiskCode LIKE '%L8%' ORESQCSpanLocationRiskCode LIKE '%L9%' ORESQCSpanLocationRiskCode LIKE '%LC%' ORESQCSpanLocationRiskCode LIKE '%LG%' ORESQCSpanLocationRiskCode LIKE '%LZ%' OR ESQCSpanLocationRiskCode LIKE '%LR%' OR ESQCSpanLocationRiskCode LIKE '%LW%' OR ESQCSpanLocationRiskCode LIKE '%LQ%' THEN 'Type B Criteria - Major Crossing'ELSE 'Type A Criteria - Normal Access' END
132kV OHL Support	M20DI33	OverallTowerAge			Age of the tower in years	Taken as the number of years since the installation date of the asset (inst_date field).	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	SELECT OverallTowerAge = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END

Model	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV UG Cable (Oil)	M23DI1	AssetID		Latest data, per asset	AssetID	Represented by the asset register asset identification number for commissioned assets at the 1st of April for regulatory period with a Equipment class of "CS" NOT Assets not Included within Snapshot data of AgeProfile	STGDW04	Equipdim	Equip_No	SELECT EquipNo AS AssetID
132kV UG Cable (Oil)	M23DI2	RouteName		Latest data, per asset	RouteName	Name of the Route held in BI table as "Sitename"	STGDW04	EQUIP_DIM	Sitename	Routename = Case When ed.equipno in ('000002067939', '000002068362', '000002067918', '000002068078','000002067940') Then right (ed.LicenceAea,3) + ' (Booster) ' + ped.Sitename Else right (ed.LicenceAea,3) + ' ' + IsNULL(ped.Sitename,ed.sitename) End
132kV UG Cable (Oil)	M23DI3	CableSection		Latest data, per asset	CableSection	Name of the Equipment held in BI table as "AssetName" Plus GIS ref	STGDW04	EQUIP_DIM and LocationDIM	Assetname	CableSection = Case When 1 = 1 Then left (ed.AssetName, 35) +' '+ isNULL(LD.GISRef,'') Else '' End,
132kV UG Cable (Oil)	M23DI4	Voltage		Latest data, per asset	Voltage	Voltage is the Voltage of the parent CI or RO (CARE decommissioned assets have been delinked from their parent therefore hard coding exists for 2014/15 Model input see SQL Logic (The equipment status is added to aid the understanding of retrospective creation of the model input for 2014/15)	STGDW04	Equip_DIM	Plantno	Voltage = Case When ed.equipno in ('000002068337','000002068339','000003976152','000003976157','000003976160','000003976153','000003976159') then '66Kv' + ' ' + + ed.EquipStatus When ed.equipno in ('000002064705') then '33Kv' + ' ' + + ed.EquipStatus When ed.equipno in ('000002067939', '000002068362', '000002067918', '000002068078','000002067940') Then '(Booster) ' + ' ' + ped.OPVolts + ' ' + ed.EquipStatus When ped.opvolts is Null and ed.opvolts is not NULL then ed.OPVolts + ' ' + ed.EquipStatus Else ped.OPVolts + ' ' + ed.EquipStatus End,
132kV UG Cable (Oil)	M23DI5	HealthIndexAssetCategory	132kV UG Cable (Oil)	Latest data, per asset	HealthIndexAssetCategory	Always '132kV UG Cable (Oil))' AS HealthIndexAssetCategory,	N/A	N/A	N/A	N/A
132kV UG Cable (Oil)	M23DI6	AssetRegisterCategory	132kV UG Cable (Oil)	Latest data, per asset	AssetRegisterCategory	Based on the parent OPVOLTS the Asset register categoryis set accordingly Note a hard coded fix is applied for some equipment niumbers a data issue that can not be fixed because of the data freeze	STGDW04	Equipdim & NonCriticalDIM	Ofgem row, or Where attributename = PWV1 (Primary winding Voltage 1)	When ed.equipno in ('000002064876','000002064875') then '132kV UG Cable (Oil)' WHEN PED.OPVolts = '132kV' THEN '132kV UG Cable (Oil)' ELSE 'Error' END,
132kV UG Cable (Oil)	M23DI7	Utilisation		Latest data, per asset	Utilisation	Not calculated	n/A	n/A	n/A	n/A
132kV UG Cable (Oil)	M23DI8	OperatingVoltageOverDesignVoltage		Latest data, per asset	OperatingVoltageOverDesignVoltage	Default to 1	n/A	n/A	n/A	n/A
132kV UG Cable (Oil)	M23DI9	ExpectedLifeSubdivision	Aluminium Sheath - Aluminium Conductor,Aluminium Sheath - Copper Conductor,Lead Sheath - Aluminium Conductor,Lead Sheath - Copper Conductor	Latest data, per asset	ExpectedLifeSubdivision	From External list created by TCS Lookup on Equipment ID	Alfresoc External Excel File	Alfrsco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	[ExpectedLifeSubDivision]= CASE WHEN NCD.SHEATHTYPE = 'Lead' AND NCD.MATERIALCORE = 'Aluminium' THEN 'Lead Sheath - Aluminium Conductor' WHEN NCD.SHEATHTYPE = 'Lead' AND NCD.MATERIALCORE = 'Copper' THEN 'Lead Sheath - Copper Conductor' WHEN NCD.SHEATHTYPE = 'Aluminium' AND NCD.MATERIALCORE = 'Aluminium' THEN 'Aluminium Sheath - Aluminium Conductor' WHEN NCD.SHEATHTYPE = 'Aluminium' AND NCD.MATERIALCORE = 'Copper' THEN 'Aluminium Sheath - Copper Conductor' ELSE '' END,

Model	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV UG Cable (Oil)	M23D I10	Age		Latest data, per asset	Age	There are specific Ages set for known assets where the Migration freeze has restructed update to Ellipse . Requests to update the asset register in SAP have been forwarded to BSSG. **AGE RULE** For the 2014/15 Model Cut any missing Year of manufcature is assumed to be 1961 with an age of 54 Otherwise teh age is caculated from Tear of Manufacture NOTE the data Qulaity on the COMMDATE has been raised as an issue with BSSG	STGDW04	Equip_Dim	YearManuf	Age = CASE When NCD.Equipno in ('000003910218', '000003910220', '000003910219', '000003910221') then '22'---- Specific equipnos added as SPN can not be updated due to FREEZE When NCD.Equipno = '000003910417' then '24' When NCD.Equipno = '000003987394' then '32' ---Luke hughes confirms commissionin 1983 When NCD.Equipno in ('000003922427','000003922428','000003922429','000003922430','000003922431','000002068066') then '85.24572' ----added as LPN requested changes had not come though 7sept2016 When ed.yearmanuf is Null then '54' When ed.yearmanuf = 0 then '54' When ed.yearmanuf > 1999 then '54' ---- Add as Incorrect Yearmanufs added in Aug2016 to replace NUlls in Ellipse (now Frozen) WHEN ed.Yearmanuf is not NULL then cast (datediff(DD,(convert (char (4),(ed.Yearmanuf*1), 111)),'2015-04-01')/365.25 as float) ELSE cast (datediff(DD,(convert (char (8),(ed.Commdate*1), 111)),'2015-04-01')/365.25 as float) ---Logically this should never be invoked END,
132kV UG Cable (Oil)	M23D I12	Leakage	Low/Moderate,High, No (or Very Low) Historic Leakage Recorded,Very High	Latest data, per asset	Leakage	Leakage is based on the Count of SiteVisits Per year in the last 5 years If the average site visits is less then 0.4 then No ?Very Low Leakage if the average site vistis < 0.8 then Low/Moderate If the ave Site Visits < 2 then High if the Ave Site Visits >= 2 then Very High	STGDW04	Condition dim	Condition dim Attribute name is OILQTYALM' or 'OILQTYROU'	Leakage = CASE WHEN CD.AvgVisits IS NULL OR CD.AvgVisits < 0.4 THEN 'No (or Very Low) Historic Leakage Recorded' WHEN CD.AvgVisits >= 0.4 AND CD.AvgVisits < 0.8 THEN 'Low/Moderate' WHEN CD.AvgVisits >= 0.8 AND CD.AvgVisits < 2.0 THEN 'High' WHEN CD.AvgVisits >= 2.0 THEN 'Very High' ELSE '' END, ********** LEFT JOIN (SELECT CD.EquipNo, CAST(COUNT(CD.EquipNo) AS FLOAT)/5 AS AvgVisits FROM [EGRPSQL01].[STGDW04].[DBO].[Condition_Dim] CD WHERE CD.MeasureName IN ('OILQTYALM','OILQTYROU') AND MeasureDateKey < 20150401 AND DATEADD(MM,-60,CAST('20150401' AS DATE)) <= CONVERT(DATETIME, CAST(MeasureDateKey AS CHAR(8))) GROUP BY CD.EquipNo) CD ON CD.EquipNo = ED.EquipNo
132kV UG Cable (Oil)	M23D I13	ReliabilityFactorInput		Latest data, per asset	ReliabilityFactorInput	IF the MOLLERHOJ attribute is Y then 1.5 if the Length is not present then BLANK If the Length divided by the number of Loints is less than or equal to 150 then 1.12	STGDW04	Non critical Dim	MOLLEROJ & NOJointsLENGTH	ReliabilityFactorInput = CASE WHEN NCD.MOLLERHOJ = 'Y' THEN '1.5' WHEN NCD.[LENGTH] IS NULL OR NCD.[LENGTH] = 0 OR NCD.NOJOINTS IS NULL OR NCD.NOJOINTS = 0 THEN '' WHEN (CAST(NCD.[LENGTH] AS FLOAT)/(CAST(NCD.NOJOINTS AS FLOAT) + 1)) <= 150 THEN '1.12' ELSE ''END
132kV UG Cable (Oil)	M23D I14	ReliabilityCollarInput		Latest data, per asset	ReliabilityCollarInput	Blank	N/A	N/A	N/A	N/A
132kV UG Cable (Oil)	M23D I15	NoOfUnits		Latest data, per asset	NoOfUnits	The Length for specific assets have been set manually in SQL based on Corrections forwared to BSSG (Necessary as this is the Core Volume Information) The Lenghth from The Non Critical Dim table is used and converted from Meters to Kilo meters DIM table	STGDW04	Non critical Dim	LENGTH	,NoOfUnits = CASE When NCD.Equipno in ('000003910218', '000003910220') then '0.55' ---- Specific equipnos added as SPN can not be updated due to FREEZE When NCD.Equipno in ('000003910219', '000003910221') then '0.35' When NCD.Equipno = '000003910417' then '0.3' When NCD.Equipno in ('000003922427','000003922428','000003922429','000003922430','000003922431','000002068066') then '0.44' -----added as LPN requested changes had not come though 7sept2016 WHEN NCD.[LENGTH] = 0 OR NCD.[LENGTH] IS NULL THEN '' WHEN NCD.[LENGTH] < 1 THEN NCD.[LENGTH] ELSE CAST(CONVERT(DECIMAL(10,3),(CAST(NCD.[LENGTH] AS FLOAT)/1000)) AS NVARCHAR) END
132kV UG Cable (Oil)	M23D I17	LocationSafetyRating	Buried,Exposed	Latest data, per asset	LocationSafetyRating	When Underground then Burried , when undeclared then BLANk any other Value is Exposed	STGDW04	Equipment Dim	EquipSituation	LocationSafetyRating = CASE WHEN ED.EquipSituation = 'Underground' THEN 'Buried' WHEN ED.EquipSituation is NULL THEN '' ELSE 'Exposed'

Model	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV UG Cable (Oil)	M23DI18	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	ProximityRating	Using the Location DIM Surface water sinsitivity value if Very High then Very close , if High then Close to water , if Medium then Moderately close and if Low then Not close Else BLANK	STGDW04	Location DIM	Surface water sensitivity	ProximityRating = case when ld.SurfaceWaterSensitivity = 'Very High' then 'Very Close to Water Course (<40m)' when ld.SurfaceWaterSensitivity = 'High' then 'Close to Water Course (between 40m and 80m)' when ld.SurfaceWaterSensitivity = 'Medium' then 'Moderately Close to Water Course (between 80m and 120m)' when ld.SurfaceWaterSensitivity = 'Low' then 'Not Close to Water Course (>120m) or No Oil' ELSE '' END,
132kV UG Cable (Oil)	M23DI19	MaximumDemand		Latest data, per asset	MaximumDemand	The Maximum demand has been obtained by TCS who have analysed Enmac data . The resultant data has been loaded into the CFM database	CFM	CableOil_Load	Maximun demand Load	MaximumDemand = Case When cl.[Maximum Demand Load] is Null then '' When cl.[Maximum Demand Load] = 0 then ''Else cast (cl.[Maximum Demand Load] as Varchar)End **********LEFT JOIN EGRPSQL01.CFM.dbo.CableOil_Load cl on ED.EQUIPNO = cl.AssetID

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV CBs	M24DI1	AssetID		Latest data, per asset	EAM unique asset identifier	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2015_6	Equip_No	SELECT EquipNo AS AssetID
132kV CBs	M24DI2	SiteName		Latest data, per asset	Name of the site location of the asset	Extracted from the Sitename field in the Equip_Dim table	STGDW04	DBO.Equip_Dim	Sitename	SELECT SiteName AS SiteName
132kV CBs	M24DI3	Manufacturer_Model		Latest data, per asset	The manufacturer and model names of the asset	Created by concatenating the Manufacturer name and model with a dash in-between	STGDW04	DBO.Equip_Dim	Manufacturer AND ManufModel	SELECT Manufacturer + '-' + ManufModel AS Manufacturer_Model
132kV CBs	M24DI4	EquipmentSituation		Latest data, per asset	Specifies whether the asset is located indoor or outdoor	Extracted from the EquipmentSituation field in the Equip_Dim table	STGDW04	DBO.Equip_Dim	EquipSituation	SELECT [EquipSituation] AS EquipmentSituation
132kV CBs	M24DI5	HealthIndexAssetCategory	132kV CBs	Latest data, per asset	CNAIM Health Index Asset Category	Always '132kV CBs'	N/A	N/A	N/A	Select '132kV CBs' AS HealthIndexAssetCategory
132kV CBs	M24DI6	AssetRegisterCategory	132kV CB (Air Insulated Busbars)(ID)(GM),132 kV CB (Air Insulated Busbars)(OD)(GM),132kV CB (Gas Insulated Busbars)(ID)(GM),132 kV CB (Gas Insulated Busbars)(OD)(GM)	Latest data, per asset	CNAIM Asset Register Category	Based on ED1_Row 119 '132kV CB (Air Insulated Busbars)(ID)(GM)' 120 '132kV CB (Air Insulated Busbars)(OD)(GM)' 121 '132kV CB (Gas Insulated Busbars)(ID)(GM)' 122 '132kV CB (Gas Insulated Busbars)(OD)(GM)'	STGDW03	Age_Profile_Data_Inst_Date_2015_6	ED1_Row	SELECT AssetRegisterCategory = CASE WHEN ED1_Row = '119' THEN '132kV CB (Air Insulated Busbars)(ID)(GM)' WHEN ED1_Row = '120' THEN '132kV CB (Air Insulated Busbars)(OD)(GM)' WHEN ED1_Row = '121' THEN '132kV CB (Gas Insulated Busbars)(ID)(GM)' WHEN ED1_Row = '122' THEN '132kV CB (Gas Insulated Busbars)(OD)(GM)' END
132kV CBs	M24DI7	DistanceFromCoast		Latest data, per asset	Distance from coast to asset	Distance from coast to asset	CFM	132kVCB_GIS	DISTANCEFROMCOAST(KM)	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
132kV CBs	M24DI8	Altitude		Latest data, per asset	Altitude of asset in metres	Extracted from the [ALTITUDE(M)] field	CFM	132kVCB_GIS	[ALTITUDE(M)]	SELECT [ALTITUDE(M)] AS Altitude
132kV CBs	M24DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	Extracted from the [CorrosionCategoryIndex] field	CFM	132kVCB_GIS	[CorrosionCategoryIndex]	SELECT [CorrosionCategoryIndex] AS CorrosionCategory
132kV CBs	M24DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Determines situation of asset to be indoors or outdoors	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE '' END
132kV CBs	M24DI11	SwitchgearNumberofOperations	Normal/Low,High (e.g. Auto-Reclosers)	Latest data, per asset	Determines if switchgear operations are high or normal/low	If CircuitBreakerFunction = B then number of operations is 'High (e.g. Auto-Reclosers)'. If CircuitBreakerFunction = D F or T then the number of operations is 'Normal/Low'. Otherwise leave blank	STGDW04	Equip_Dim	CircuitBreakFunction	SELECT SwitchgearNumberofOperations = CASE WHEN CircuitBreakFunction = 'B' THEN 'High (e.g. Auto-Reclosers)' WHEN CircuitBreakFunction IN ('D','F','T') THEN 'Normal/Low' ELSE '' END
132kV CBs	M24DI12	Age		Latest data, per asset	Calculated Age from Calendar year as recorded in Age_Profile_Data_Inst_Date_2015_6	Calculate the age in years from the current date and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6 otherwise set Age to blank	STGDW03	Age_Profile_Data_Inst_Date_2015_6	inst_date	Age = CASE WHEN inst_date > '2016-04-01' then 0 ELSE datediff(DD, inst_date ,'2016-04-01')/365.25 END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV CBs	M24DI13	SwitchgearExternalCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the external condition of the Switchgear	Based on the defects and latest condition values against the asset:If (CONDCONTB = 4 AND CABLEBOX = 4) OR CONDHOUS = 4 OR CONDBUSH = 4 OR CONDEXBUSH = 4 OR DEFBUSH = 4 THEN 'Substantial Deterioration'If CONDBUSH = 3 OR CONDEXBUSH = 3 or CONDHOUS = 3 OR CONDCONTB > 2 OR CABLEBOX > 2 OR DEFECTCOM = 4 OR DEFECTCAB = 4 OR DEFECTECO = 4 THEN 'Some Deterioration'If CONDBUSH = 2 OR CONDEXBUSH = 2 or CONDHOUS = 2 OR CONDCONTB = 2 OR CABLEBOX = 2 THEN 'Normal Wear'If CONDBUSH = 1 AND CONDEXBUSH = 1 AND CONDHOUS = 1 AND DEFBUSH = 1 THEN 'As New'Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AS CONDCONTB and CABLEBOX and CONDHOUS and DEFECTCOM and DEFECTCAB and DEFECTECO	SELECT SwitchgearExternalCondition =CASEWHEN (CONDCONTB = 4 AND CABLEBOX = 4) OR CONDHOUS = 4 OR CONDBUSH = 4 OR CONDEXBUSH = 4 OR DEFBUSH = 4 THEN 'Substantial Deterioration'WHEN CONDBUSH = 3 OR CONDEXBUSH = 3 or CONDHOUS = 3 OR CONDCONTB > 2 OR CABLEBOX > 2 OR DEFECTCOM = 4 OR DEFECTCAB = 4 OR DEFECTECO = 4 THEN 'Some Deterioration'WHEN CONDBUSH = 2 OR CONDEXBUSH = 2 or CONDHOUS = 2 OR CONDCONTB = 2 OR CABLEBOX = 2 THEN 'Normal Wear'WHEN CONDBUSH = 1 AND CONDEXBUSH = 1 AND CONDHOUS = 1 AND DEFBUSH = 1 THEN 'As New'ELSE '' END
132kV CBs	M24DI14	OilLeaks_GasPressure	Good,Slight Leak,Poor,Severe Leak	Latest data, per asset	Identifies the presence of an oil leak at the asset	Based on the latest condition, defects, attributes (GASCAP), and latest gas readings (CUM_VALUE): If DEFSEVOIL = 4 OR OILCONTA = 4 OR SF6PRESS > 2 OR CUM_Value > GASCAP THEN 'Severe Leak' If OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR P.DEFECTOLE = 4 OR SF6PRESS = 2 THEN 'Poor' If OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 OR SF6PRESS = 1 THEN 'Slight Leak' If OILCONTA = 1 OR CONDITION > 1 OR SF6PRESS = 0 THEN 'Good'	REGdb AND STGDW04 AND STGDW01	APR16.Condition_Dim AND NPL_NonCritical_Dim AND MSF400	MeasureName AND MeasureValue AND CUM_VALUE AND stat_type AND STAT_DATE	SELECT cd.equip_no, cd.CUM_VALUE FROM (SELECT CD.Equip_No, MAX(CD.[STAT_DATE]) AS [MAX_STAT_DATE] FROM #AssetCategoryList ED INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on ED.Equip_NO = CD.Equip_No AND CD.[STAT_DATE] < 20160401 AND CD.stat_type = 'ST' GROUP BY CD.Equip_No) X INNER JOIN [EGRPSQL01].[STGDW01].[PRD].[MSF400] CD on x.Equip_NO = cd.equip_no and x.[MAX_STAT_DATE] = cd.Stat_Date SELECT OilLeaks_GasPressure = CASE WHEN DEFSEVOIL = 4 OR OILCONTA = 4 OR SF6PRESS > 2 OR CUM_Value > GASCAP THEN 'Severe Leak' WHEN OILCONTA = 3 OR DEFECTGSK = 4 OR DEFECTSIT = 4 OR P.DEFECTOLE = 4 OR SF6PRESS = 2 THEN 'Poor' WHEN OILCONTA = 2 OR DEFSEVCOM = 4 OR DEFECTCOM > 1 OR SF6PRESS = 1 THEN 'Slight Leak' WHEN OILCONTA = 1 OR CONDITION > 1 OR SF6PRESS = 0 THEN 'Good'
132kV CBs	M24DI15	ThermographicAssessment	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Thermographic Assessment	Always blank	N/A	N/A	N/A	SELECT '' AS ThermographicAssessment
132kV CBs	M24DI16	SwitchgearInternalCondition_Operation	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Determines the internal condition of the Switchgear	Based on latest condition values and any defects:If CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 OR SELECTOPE = 4 THEN 'Substantial Deterioration'If CONDITION = 3 OR CONDINTER = 3 OR OPERATION = 3 OR DEFSEVCOR = 4 OR CONDCON = 4 OR DEFOPMECH = 4OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 4 OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS = 4 THEN 'Some Deterioration'If CONDITION = 2 OR CONDINTER = 2 OR OPERATION = 2 THEN 'Normal Wear'If CONDITION = 1 AND CONDINTER = 1 AND OPERATION = 1 THEN 'As New'Blank for any other cases	STGDW04 (for defects)ANDREGdb (for condition)	DBO.Condition_Dim (for defects)ANDAPR16.Condition_Dim (for condition)	MeasureNameANDMeasureValue	SELECT SwitchgearInternalCondition_Operation = CASEWHEN CONDITION = 4 OR CONDINTER = 4 OR OPERATION = 4 OR SELECTOPE = 4 THEN 'Substantial Deterioration'WHEN CONDITION = 3 OR CONDINTER = 3 OR OPERATION = 3 OR DEFSEVCOR = 4 OR CONDCON = 4 OR DEFOPMECH = 4OR DEFSWIRE = 4 OR CONDCON = 4 OR DEFECTSHU = 4 OR CONDCB = 4 OR SMALLWIRI = 4 OR DEFECTWEA = 4 OR WEARGUAGE = 4 OR CONDMECH = 4 OR MECHWEAR = 4 OR FUSECARRI = 4 OR SHUTTERS = 4 THEN 'Some Deterioration'WHEN CONDITION = 2 OR CONDINTER = 2 OR OPERATION = 2 THEN 'Normal Wear'WHEN CONDITION = 1 AND CONDINTER = 1 AND OPERATION = 1 THEN 'As New'ELSE ''END

Model Name	EATL SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV CBs	M24DI17	IndoorEnvironment	Better than Expected,As Expected,Deteriorated Environment,Severely Deteriorated Environment	Latest data, per asset	Determines the condition of the assets environment	If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 4 'Severely Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU = 3 'Deteriorated Environment' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =2 'As Expected' If any of CONDEXKIO, CONSUPPOR, DEFECTSUB or DEFECTCCU =1 'Better Than Expected' Otherwise set to blank	STGDW04 (for defects) AND REGdb (for condition)	DBO.Condition_Dim (for defects) AND APR16.Condition_Dim (for condition)	MeasureName AND MeasureValue	SELECT IndoorEnvironment = CASE WHEN CONDEXKIO = 4 OR CONSUPPOR = 4 OR DEFECTSUB = 4 OR DEFECTCCU = 4 THEN 'Severely Deteriorated Environment' WHEN CONDEXKIO = 3 OR CONSUPPOR = 3 OR DEFECTSUB = 3 OR DEFECTCCU = 3 THEN 'Deteriorated Environment' WHEN CONDEXKIO = 2 OR CONSUPPOR = 2 OR DEFECTSUB = 2 OR DEFECTCCU = 2 THEN 'As Expected' WHEN CONDEXKIO = 1 OR CONSUPPOR = 1 OR DEFECTSUB = 1 OR DEFECTCCU = 1 THEN 'Better Than Expected' ELSE '' END
132kV CBs	M24DI18	SupportStructures	No Deterioration,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Provides information on structure condition	Based on CONSUPPOR 4 'Substantial Deterioration' 3 'Some Deterioration' 2 'Normal Wear' 1 'No Deterioration'	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT SupportStructures = CASE WHEN CONSUPPOR = 4 THEN 'Substantial Deterioration' WHEN CONSUPPOR = 3 THEN 'Some Deterioration' WHEN CONSUPPOR = 2 THEN 'Normal Wear' WHEN CONSUPPOR = 1 THEN 'No Deterioration' ELSE '' END
132kV CBs	M24DI19	AirSystems	No Deterioration,Minor Deterioration,Major Air Losses,Minor Air Losses	Latest data, per asset	Air Systems	Always blank	N/A	N/A	N/A	SELECT '' AS AirSystems
132kV CBs	M24DI20	PartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	Provides information on any electrical discharge from the asset resulting from insulation breakdown or insufficiency	Based on the latest condition (p.CONDDISC) and all past conditions (dh.CONDDISC) of the asset. If p.CONDDISC is 4 OR dh.CONDDISC is equal or greater than 4 then it's "High (Confirmed)" If p.CONDDISC is 4 OR dh.CONDDISC is less than 4 then it's "High (Confirmed)" If dh.CONDDISC greater than 1 then "Medium" If p.CONDDISC is NULL AND dh.CONDDISC is less or equal to 1 then "Low" Blank for any other cases	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT PartialDischarge = CASE WHEN p.CONDDISC = 4 AND dh.CONDDISC >= 4 THEN 'High (Confirmed)' WHEN p.CONDDISC = 4 AND dh.CONDDISC < 4 THEN 'High (Not Confirmed)' WHEN dh.CONDDISC > 1 THEN 'Medium' WHEN dh.CONDDISC <= 1 AND p.CONDDISC IS NOT NULL THEN 'Low' ELSE '' END
132kV CBs	M24DI21	DuctorTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Provides information on the results of a ductor test	Based on the ductor test result which is calculated from the DUCTORREA, DUCTORREB and DUCTORREC latest condition values. When their average value is greater than 0 and their minimum value is not equal to zero then the NumericResult is set to the sum of minimum and maximum values derived by the average then mutiplied by one hundred. NumericResult is set to zero for any other cases.If the Ductor test result is above 100 '> 10% Deterioration from New'If the Ductor test result is above 20 but less than or equal to 100 'Up to 10% Deterioration from New'If the Ductor test result is above 0 but less than or equal to 20 'As New' . Otherwise leave blank	REGdb	APR16.Condition_Dim	MeasureNameANDMeasureValue	SELECT b.EQUIPNO, DuctorTest = CASEWHEN b.NumericResult > 100 THEN '> 10% Deterioration from New'WHEN b.NumericResult > 20 AND b.NumericResult <= 100 THEN 'Up to 10% Deterioration from New'WHEN b.NumericResult > 0 AND b.NumericResult <= 20 THEN 'As New'ELSE '' ENDINTO #DuctorTestFROM (SELECT EQUIPNO, CASE WHEN AVG(MeasureValue) > 0 AND MIN(MeasureValue) <> 0 THEN ((MAX(MeasureValue) - MIN(MeasureValue)) / AVG(MeasureValue)) * 100 ELSE 0 END AS NumericResult FROM (SELECT EQUIPNO, MeasureName, MeasureValue FROM (SELECT EQUIPNO, DUCTORREA, DUCTORREB, DUCTORREC FROM #PivotCond) p UNPIVOT (MeasureValue FOR MeasureName IN (DUCTORREA, DUCTORREB, DUCTORREC)) AS unpvt) a group by a.EquipNo) b
132kV CBs	M24DI22	IRTest	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	IR Test	Always blank	N/A	N/A	N/A	SELECT '' AS IRTest

Model Name	EATL SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV CBs	M24D I23	OilTests_Gas Tests	As New,Up to 10% Deterioration from New,> 10% Deterioration from New	Latest data, per asset	Converts output of oil testing into qualitative descripton	125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue <= 50 'As New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue is between 51 and 500 'Up to 10% Deterioration from New', 125 * AcidityValue + 80 * MoistureValue + 80 * BreakdownValue > 500 ' 10% Deterioration from New', If AcidityValue, MoistureValue or BreakdownValue = '' leave blank	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	See Appendix 4
132kV CBs	M24D I24	Temperature Readings	Ambient or Below,Above Ambient,Substantially Above Ambient	Latest data, per asset	Temperature reading for asset	If DEFECTTEM = 4 'Substantially Above Ambient' If DEFECTTEM = 1 'Ambient or Below' Otherwise 'Ambient or Below'	REGdb	APR16.Condition_Dim	MeasureName AND MeasureValue	SELECT TemperatureReading = CASE WHEN DEFECTTEM = 4 THEN 'Substantially Above Ambient' WHEN DEFECTTEM = 1 THEN 'Ambient or Below' ELSE 'Ambient or Below' END
132kV CBs	M24D I25	TripTest	Fail,Pass	Latest data, per asset	Reports pass fail for trip testing	Based on the latest condition measure of the TRIPVALU1 and the trip time of the switchgear (Value). If TRIPVALU1 is equal or greater than 10 AND less or equal to the Value then 'PASS' If TRIPVALU1 is equal or greater than 10 AND greater than Value then 'FAIL' Blank for any other cases	REGdb (for TRIPVALU1) AND CFM	APR16.Condition_Dim (for TRIPVALU1) AND DBO.SwitchgearTripTime	MeasureValue (for TRIPVALU1) AND Value	SELECT TripTest = CASE WHEN TRIPVALU1 >= 10 AND TRIPVALU1 <= Value THEN 'Pass' WHEN TRIPVALU1 >= 10 AND TRIPVALU1 > Value THEN 'Fail' ELSE '' END
132kV CBs	M24D I26	ReliabilityFactorInput		Latest data, per asset	Modifier applied to Health Score based on specific knowledge of asset	Based on the CBReliability field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	CBReliability	SELECT [CBReliability] as ReliabilityFactorInput
132kV CBs	M24D I27	ReliabilityCollarInput		Latest data, per asset	Minimum health score used as an overide	Based on the ReliabilityCollar field from the EXT_EGIReliability table	CFM	dbo.EXT_EGIReliability	ReliabilityCollar	SELECT [ReliabilityCollar] as ReliabilityCollarInput
132kV CBs	M24D I28	NoOfUnits		Latest data, per asset	Number of units per record	1 per record	N/A	N/A	N/A	SELECT 1 AS NoOfUnits
132kV CBs	M24D I29	TypeSafetyRating	Low,Medium,High	Latest data, per asset	Provides the safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESCEquipRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESCEquipRisk	SELECT TypeSafetyRating = Case WHEN ESCEquipRisk = '1 - LOW' THEN 'Low' WHEN ESCEquipRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESCEquipRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
132kV CBs	M24D I30	LocationSafetyRating	Low,Medium,High	Latest data, per asset	Provides the locational safety rating for the asset based upon the risk of the asset, the assets parents and grandparents.	Based on the latest value of ESQCLocationRisk from the ESQCMeasures_Dim table: If '1 - LOW' THEN 'Low', If '2 - MEDIUM' THEN 'Medium' If '3 - HIGH' OR '4 - V.HIGH' THEN 'High' Blank for any other cases	STGDW04	ESQCMeasures_Dim	ESQCLocationRisk	SELECT LocationSafetyRating = CASE WHEN ESQCLocationRisk = '1 - LOW' THEN 'Low' WHEN ESQCLocationRisk = '2 - MEDIUM' THEN 'Medium' WHEN ESQCLocationRisk IN ('3 - HIGH', '4 - V.HIGH') THEN 'High' ELSE '' END
132kV CBs	M24D I31	TypeEnvironmentRating	Oil,Neither,SF6	Latest data, per asset	Environment rating	Based on the AttributeValue against the AttributeName equal to "INSULATION": If AttributeValue = 'SF6 GAS' THEN 'SF6' If AttributeValue = 'Oil' Then 'Oil' If AttributeValue = Air or AttributeValue = Resin then 'Neither' Otherwise leave blank	STGDW04	NPL_NonCritical_Dim	AttributeValue	SELECT TypeEnvironmentRating = CASE WHEN INSULATION = 'SF6 GAS' THEN 'SF6' WHEN INSULATION = 'Oil' THEN 'Oil' WHEN INSULATION IN ('Air', 'Resin') THEN 'Neither' ELSE '' END

Model Name	EATL Specl D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV CBs	M24D I32	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	Proximity to water	Based on the type of insulation (AttributeValue against AttributeName equal to "INSULATION") and the values from the [PROXIMITYRATING(M)] field: If INSULATION is different to "Oil" then "Not Close to Water Course (>120m) or No Oil" If INSULATION is null then blank If [PROXIMITYRATING(M)] is greater than 120 then "Not Close to Water Course (>120m) or No Oil" If [PROXIMITYRATING(M)] is between 80 and 120 then "Moderately Close to Water Course (between 80m and 120m)" If [PROXIMITYRATING(M)] is greater or equal to 40 and less than 80 then "Close to Water Course (between 40m and 80m)" If [PROXIMITYRATING(M)] is less than 40 then "Very Close to Water Course (<40m)" Blank for any other cases	STGDW04 AND CFM	NPL_NonCritical_Dim AND 132kVCB_GIS	AttributeValue AND [PROXIMITYRATING(M)]	SELECT ProximityRating = CASE When INSULATION <> 'Oil' then 'Not Close to Water Course (>120m) or No Oil' When INSULATION is NUll then '' When [PROXIMITYRATING(M)]>120 then 'Not Close to Water Course (>120m) or No Oil' When [PROXIMITYRATING(M)]<=120 AND [PROXIMITYRATING(M)]>=80 then 'Moderately Close to Water Course (between 80m and 120m)' When [PROXIMITYRATING(M)]<80 AND [PROXIMITYRATING(M)]>=40 then'Close to Water Course (between 40m and 80m)' When [PROXIMITYRATING(M)]<40 then'Very Close to Water Course (<40m)' Else '' End
132kV CBs	M24D I33	Bunding	Bunded,Not Bunded	Latest data, per asset	Determines if the asset is not bunded	Determine if bunding exists for the selected asset classes	STGDW04	Equip_Dim	EqipClass, EquipStatus	SELECT Bunding = CASE WHEN BUNDLE.Equip_NO IS NULL THEN '' ELSE 'Not Bunded' ENDBUNDLE AS (SELECT DISTINCT EDM.EQUIP_NO FROM #AssetCategoryList EDM INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] ED ON EDM.EQUIP_NO = ED.EquipNo and ED.IsRowCurrent = 1 INNER JOIN [EGRPSQL01].[STGDW04].[DBO].[Equip_Dim] BD ON ED.SiteNo = BD.SiteNo and ed.DstrctCode = BD.DstrctCode AND BD.EquipClass = 'BN' AND BD.IsRowCurrent = 1)
132kV CBs	M24D I34	MaximumDemand		Latest data, per asset	Maximum Demand	Based on the [Maximum Demand Load] field from the 132kVCB_Load table	CFM	DBO.132kVCB_Load	[Maximum Demand Load]	SELECT [Maximum Demand Load] AS MaximumDemand
132kV CBs	M24D I35	NetworkType	Secure,Unsecure	Latest data, per asset	NetworkType	Always 'Secure'	N/A	N/A	N/A	SELECT 'Secure' AS NetworkType
132kV CBs	M24D I36	AccessFinancialRating	Type A Criteria - Normal Access,Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	Determine access condition of asset	If EquipSituation is 'Outdoor' or 'GRP' or ConfinedSpace is 'Type A Confined Space' or 'No Confined Space' the access rating is 'Type A Criteria - Normal Access'. If ConfinedSpace is 'Type B (24 Hours)' or 'Type B (Out Of Hours)' the access rating is 'Type B Criteria - Constrained/Confined'. If ConfinedSpace is 'Type C Confined Space' then the access rating is 'Type C Criteria - Underground'. otherwise blank	STGDW04	Equip_Dim and Location_Dim	EquipSituation and ConfinedSpace	SELECT AccessFinancialRating = CASE WHEN EquipSituation IN ('Outdoor', 'GRP') OR ConfinedSpace IN ('Type A Confined Space', 'No Confined Space') THEN 'Type A Criteria - Normal Access' WHEN ConfinedSpace IN ('Type B (24 Hours)', 'Type B (Out Of Hours)') THEN 'Type B Criteria - Constrained/Confined' WHEN ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' ELSE '' END

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI1	TXAssetID		Latest data, per asset	TXAssetID	Represented by the asset register asset identification number	STGDW03	Age_Profile_Data_Inst_Date_2014_5	Equip_No	SELECT Equip_No AS Asset ID
132kV Transformer	M17DI57	TCAssetID		Latest data, per asset	TCAssetID	Represented by the asset register asset identification number of the TAP Changer (TC) where the TC is the Child of the TX and Commissioned	STGDW04	EQUIP_DIM	Equip_No	INNER JOIN [EGRPSQL01].[STGDW04].[dbo].[EQUIP_Dim] edco on ed.equip_NO = edco.ParentEquip and edco.EQUIPClass='CO' and edco.Equipstatus = 'CO' and edco.isrowcurrent =1
132kV Transformer	M17DI2	SiteName		Latest data, per asset	SiteName	Name of the Site and the DNO	STGDW04	EQUIP_DIM + Age_Profile_Data_Inst_Date_2015_6	EQUIP_Dim Site No + Age Profile DNO	eqd.Sitename + ' ' + edd.DNO AS Site Name
132kV Transformer	M17DI3	AssetName		Latest data, per asset	AssetName	Name of the asset and equipment Class	STGDW04	EQUIP_DIM	Asset name + Asset Class	eqd.AssetName + ' ' + eqd.equipclass AS Asset Name,
132kV Transformer	M17DI4	TapChanger Manufacturer_Model		Latest data, per asset	TapChangerManufacturer_Model	Name of the make and model of the TC	STGDW04	EQUIP_Dim	Manufacturer + ManufModel	tcd.[Manufacturer] + ' ' + tcd.[ManufModel] AS TapChangerManufacturer_Model,
132kV Transformer	M17DI5	HealthIndexAssetCategory	132kVTransformer	Latest data, per asset	HealthIndexAssetCategory	Always '132kV Transformer' as selected as OFGEMRow = 101 from Age profile 2014/15	RegDB	Age_Profile_Data_Inst_Date_2014_5	Ofgem_row	WHEN ofgem_Row = '101' Then '132kV Transformer'
132kV Transformer	M17DI6	AssetRegisterCategory	33kV Transformer (GM),66kV Transformer (GM)	Latest data, per asset	AssetRegisterCategory	Based on Voltage it will always be 132kV Transformer (GM)	STGDW04	NonCriticalDIM	Where attribute name = PWV1 (Primary winding Voltage 1)	AssetRegisterCategory = Case when ncd.attributevalue = '132kV' then '132kV Transformer (GM)'when ncd.attributevalue = '33kV' then '33kV Transformer (GM)'when ncd.attributevalue = '66kV' then '66kV Transformer (GM)'when ncd.attributevalue = '22kV' then '33kV Transformer (GM)'when ncd.attributevalue = '20kV' then '33kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '33kV' then '33kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '66kV' then '66kV Transformer (GM)'when ncd.attributevalue is null and Eqd.Opvolts = '132kV' then '132kV Transformer (GM)'Else ncd.attributevalueEnd,
132kV Transformer	M17DI7	DistanceFromCoast		Latest data, per asset	DistanceFromCoast	Distance from coast to asset	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT DISTNCEFROMCOAST(KM) AS DistanceFromCoast
132kV Transformer	M17DI8	Altitude		Latest data, per asset	Altitude	From External list created by TCS Lookup on Equipment ID	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	within SQL it is (SELECT '' AS Altitude) to give blank space
132kV Transformer	M17DI9	CorrosionCategory	1,2,3,4,5	Latest data, per asset	CorrosionCategory	From External list created by TCS Lookup on Equipment ID	Alfresco External Excel File	Alfresco File Transformer GSP Data	Brought into Transformer Prep Spreadsheet see project folder	SELECT '' AS CorrosionCategory
132kV Transformer	M17DI10	Indoor_Outdoor	Indoor,Outdoor	Latest data, per asset	Indoor_Outdoor	Based on EquipSituation ('Outdoor', 'GR', 'Kiosk') ='Outdoors' and ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') = Indoor. Otherwise set to blank	STGDW04	Equip_Dim	EquipSituation	SELECT Indoor_Outdoor = CASE WHEN EquipSituation IN ('Outdoor', 'GRP', 'Kiosk') THEN 'Outdoor' WHEN EquipSituation IN ('Indoor', 'Indoor - Not Sites','Underground','Building','Basement') THEN 'Indoor' ELSE 'Outdoor' END
132kV Transformer	M17DI11	Utilisation		Latest data, per asset	Utilisation	The demand for the site divided by the number of transformers on the site divided by the Transformer rating.	STGDW04	rating from Noncritical DIM	See prep spread sheet for data quality selection of Rating value from (MAXRATING, ONANRATING, OFAFRATING etc.)	

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17D I12	Avg.Number TapsperDay		Latest data, per asset	Avg.NumberTapsperDay	From the OPSTATS Table the First and last Tapchange records are used The Average is Calculated from the Cummalative values If the Average is out of Range (0-100) then the Aveage between the last two readings is Used If this is also out of range then the BLANK (for 2014/15 measures before 20150401 are excluded)	STGDW04	Condition_dim	where meaurename = TAPREADIN	See Appendix 2
132kV Transformer	M17D I13	TransformerExpectedLifeSubdivision	Transformer - Pre 1980,Transformer - Post 1980	Latest data, per asset	TransformerExpectedLifeSubdivision	Set as Either Pre 1980 or Post 1980 based on Year of manufacture. If Year MANUF (YYYY) is less than 1980 then "Pre1980" else Post 1980	STGDW04	Equip_Dim	YEARMANUF	TransformerExpectedLifeSubdivision = CASE WHEN left (edd.inst_date, 4) < 1980 THEN 'Transformer - Pre 1980' ELSE 'Transformer - Post 1980' END,
132kV Transformer	M17D I14	TransformerAge		Latest data, per asset	TransformerAge	Calculate the age in years from the current date and the Inst_date field in Age_Profile_Data_Inst_Date_2015_6 otherwise use Comm date (AGE CAN NOT BE blank	STGDW04	Age_Profile_Data_Inst_Date_2015_6 or EQUIP_Dim if Instdate is NULL	Inst date /Commdate	TransformerAge = Case when edd.inst_date is Null then ISNULL(CAST (datediff(DD,(convert (char (8),eqd.commdate, 111)),GetDate())/365.25 as float), '') else cast (datediff(DD, edd.inst_date ,'2015-04-01')/365.25 as float)end ,
132kV Transformer	M17D I15	TapchangerAge		Latest data, per asset	TapchangerAge	As there is no Instdate for Tap changers the rule is different than that for Transformers If the 8 digit Commdate is the same year as the 4 digit Year of manufacture we use the Commdate to calculate age Otherwise We use the Year of Manufacture unless it is NULL in which case we use the Commdate	STGDW04	EQUIP_DIM	YearManuf, Commdate	TapchangerAge = Case when tc.Yearmanuf = left(tc.commdate, 4) then cast (datediff(DD,(convert (char (8),(tc.CommDate*1), 111)),'2015-04-01')/365.25 as FLOAT) when tc.Yearmanuf is not NULL then cast (datediff(DD,(convert (char (4),(tc.Yearmanuf*1), 111)),'2015-04-01')/365.25 as FLOAT) when tc.Yearmanuf is NULL and tc.CommDate is not NULL then cast (datediff(DD,(convert (char (8),(tc.commdate), 111)),'2015-04-01')/365.25 as FLOAT) when tc.CommDate is NULL and tc.Yearmanuf is NULL then '' Else '' end ,
132kV Transformer	M17D I16	MainTankCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	MainTankCondition	**Main Tank External Condition rule** Where Either the Oil containment Condition is 4 or the Housing condition is 4 then Substantial Deterioration Where the above is Not true but the Weighted Top up values in the previous 10 years exceed 1435 then "Substantial Deterioration" Else Where Either the Oil containment Condition is 3 or the Housing condition is 3 then "Some Deterioration" Where the above is Not true but the Weighted Top up values in the previous 10 years exceed 410 then "Some Deterioration" Else Where the two condition items are no more than 2 and there is either no top up values or the Weighted Top up values in the previous 10 years is <=410 then Normal	STGDW04	Condition_Dim	MeasureName AS OILCONTA and DEFECTCOM and DEFECTGSK and DEFECTSIT and DEFECTOLE	See Appendix 3

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI17	Coolers_RadiatorCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	Coolers_RadiatorCondition	Using only the Condition measures recorfe3d against the TX's Cooler equipment record. **Substantial deterioration** exist if ANY of the Four Condition Points "Oil Containment", "Condition of Housing " or "Condition of Cooler" or "Fan condition" is a 4 OR If three of the above four condition points have a value of 3 or More **Some deterioration** exist if any of the above four condition points have a value of 3 or more OR if there is an outstanding pump defect , or Severe Oil leak defect or fan defect or Pump defect**Normal Wear** is Identified by the presence of only values 1 or 2 for Condition and no outstanding defects . Otherwise BLANK	STGDW04	Condition_Dim		SELECT p.TXAssetID,'CoolerCondition' = case When p.OILCONTA = 4 or P.CONDHOUS = 4 or p.CONDCOOL = 4 or p.CONDPPFAN = 4 then 'Substantial Deterioration' When P.CONDHOUS >2 and p.CONDCOOL >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and p.CONDCOOL >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and P.CONDHOUS >2 and p.CONDPPFAN >2 then 'Substantial Deterioration' When p.OILCONTA >2 and P.CONDHOUS >2 and p.CONDCOOL >2 then 'Substantial Deterioration' When p.OILCONTA >2 or P.CONDHOUS >3 or p.CONDFAN >2 or p.CONDOPUMP >2 or p.CONDCOOL >2 or p.CONDPPFAN >2 or p.DEFSEVOIL = 4 or p.DEFECTCOF = 4 or p.DEFECTCOL = 4 or p.DEFWPUMP = 4 then 'Some Deterioration' When p.OILCONTA = 2 or P.CONDHOUS = 2 or p.CONDFAN = 2 or p.CONDOPUMP = 2 or p.CONDCOOL = 2 or p.CONDPPFAN = 2 then 'Normal Wear' When p.OILCONTA = 1 or P.CONDHOUS = 1 or p.CONDFAN = 1 or p.CONDOPUMP = 1 or p.CONDCOOL = 1 or p.CONDPPFAN = 1 then 'Normal Wear' Else '' End
132kV Transformer	M17DI18	BushingsCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	BushingsCondition	Substantial deterioration exists if either there is a Condition 4 or an outstanding defect for the Bushings Otherwise if the Bushing condition is 3 then there is some deterioration otherwise a Value of 2 or 1 indicates normal wear	STGDW04	Condition_Dim		,BushingsCondition = Case When ptxc.CONDBUSH = 4 or ptxc.DEFBUSH = 4 then 'Substantial Deterioration' When ptxc.CONDBUSH = 3 then 'Some Deterioration' When ptxc.CONDBUSH IN (1,2) then 'Normal Wear' Else '' End
132kV Transformer	M17DI19	KioskCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	KioskCondition	If Kiosk condition is 4 then "substantial Deterioration " if Kiosk condition is 3 then "Some deterioration" if the condition is 1 or 2 then "Normal Wear " otherwise Blank	STGDW04	Condition_Dim		, KioskCondition = Case When ptxc.CONDEXKIO = 4 then 'Substantial Deterioration' When ptxc.CONDEXKIO = 3 then 'Some Deterioration' When ptxc.CONDEXKIO IN (1,2) then 'Normal Wear' Else '' End
132kV Transformer	M17DI20	CableBoxesCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	CableBoxesCondition	Where the TX has the following defect(DEFECTCAB defective cable box) the Value is "substantial deterioration" Where the TX has the following defects the Value is Some deterioration (DEFECTCOM - Compound leak DEFSEVCOM Severe Compoundleak DEFECTCLE defective cables/Cable cleats) Otherwise 'Normal Wear'	STGDW04	Condition_Dim	Measurename as DEFECTCAB, DEFECTCOM, DEFSEVCOM,DEFECTCLE	CableBoxesCondition = Case When ptxc.DEFECTCAB = 4 then 'Substantial Deterioration' When ptxc.DEFECTCOM = 4 then 'Some Deterioration' When ptxc.DEFSEVCOM = 4 then 'Some Deterioration' When ptxc.DEFECTCLE = 4 then 'Some Deterioration' Else 'Normal Wear' End,
132kV Transformer	M17DI21	TapchangerExternalCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	TapchangerExternalCondition	Where either the condition of the Housing, or the oil Containment is 4 or there is an outstanding defect for SEVERE Oil leaks' or SEVERE corrosion then It is "Substantial deterioration" otherwise if the Oil containment is 2 or 3 or the Housing is condition 3 or there is a defect with either the Fluid sight glass of Conservator sight glass then there is "some deterioration" otherwise if the values are 1 for the condition measures it is "normal wear" else BLANK if we have no condition measure value at all.	STGDW04	Condition_Dim	MeasureName AS CONDHOUSE, DEFSEVCOR, DEFSEVOIL,OILCONTA ,,DEFECTOLE	TapchangerExternalCondition = Case When ptcc.CONDHOUS = 4 then 'Substantial Deterioration' When ptcc.DEFSEVCOR = 4 then 'Substantial Deterioration' When ptcc.DEFSEVOIL = 4 then 'Substantial Deterioration' When ptcc.OILCONTA = 4 then 'Substantial Deterioration' When ptcc.DEFECTSIT = 4 then 'Some Deterioration' When ptcc.DEFCONSIT = 4 then 'Some Deterioration' When ptcc.DEFECTOLE = 4 then 'Some Deterioration' When ptcc.OILCONTA in (2,3) then 'Some Deterioration' When ptcc.CONDHOUS = 3 then 'Some Deterioration' When ptcc.CONDHOUS IN (1,2) or ptcc.OILCONTA =1 then 'Normal Wear' Else '' End,

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI22	InternalCondition	Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	InternalCondition	Tap changer Internal condition is Substantial deterioration if More than one Condition point is Condition 4. If two out of the following are condition 4 Carbonisation of Old Oil Sludging of Old Oil Condition of Transistor Resistor Tap changer Change-over Switch Condition Otherwise if any of the above conditions are greater than one or there is an outstanding defect on Tap changer operation then then it is "Some Deterioration' if we have the value of 1 for all conditions and no outstanding defect it is Normal wear otherwise it is BLANK	STGDW04	Condition_Dim	MeasureName AS CONDSLU, CONDTCCO, CONDTRRES,OILCARBON,DEFECTTAP	InternalCondition = case When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.CONDTCCO = 4 then 'Substantial Deterioration' When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.CONDTRRES = 4 then 'Substantial Deterioration' When (ptcc.CONDSLU = 4 or ptcc.OILCARBON = 4)and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDTCCO = 4 and ptcc.CONDTRRES = 4 then 'Substantial Deterioration' When ptcc.CONDTCCO = 4 and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDTRRES = 4 and ptcc.DEFECTTAP = 4 then 'Substantial Deterioration' When ptcc.CONDSLU >1 or ptcc.CONDTCCO >1 or ptcc.CONDTRRES >1 or ptcc.OILCARBON >1 or DEFECTTAP = 4 then 'Some Deterioration' When ptcc.CONDSLU =1 or ptcc.CONDTCCO =1 or ptcc.CONDTRRES =1 or ptcc.OILCARBON =1 or DEFECTTAP = 1 then 'Normal Wear' Else '' End ,
132kV Transformer	M17DI23	DriveMechanismCondition	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	DriveMechanismCondition	If the "Condition of Motorbrake"or "Condition of TapchangerMotor" or the "mechanism wear" is a 4 then "Substantial Deterioration" otherwise ...If the "Condition of Motor brake" or "Condition of TapchangerMotor" or the "mechanism wear" is a 3 or there is an outstanding defect for "Drive Couplings Defective" or "Drive Shaft Defective" then "Some deterioration" otherwise ...If any condition points is "2" then Normal wear Otherwise ... If any condition points is "1" then "As New "	STGDW04	Condition_Dim	MeasureName AS CONDMOBRA, CONDTCMOT, MECHWEAR,DEFDRCUP,DEFDRVSHA	DriveMechanismCondition = CASE When ptcc.CONDMOBRA = 4 or ptcc.CONDTCMOT = 4 or ptcc.MECHWEAR = 4 then 'Substantial Deterioration' When ptcc.CONDMOBRA = 3 or ptcc.CONDTCMOT = 3 or ptcc.MECHWEAR = 3 or ptcc.DEFDRVCUP = 4 or ptcc.DEFDRVSHA = 4 or ptcc.DEFECTMOT = 4 then 'Some Deterioration' When ptcc.CONDMOBRA = 2 or ptcc.CONDTCMOT = 2 or ptcc.MECHWEAR = 2 then 'Normal Wear' When ptcc.CONDMOBRA = 1 or ptcc.CONDTCMOT = 1 or ptcc.MECHWEAR = 1 then 'As New' Else '' End ,
132kV Transformer	M17DI24	ConditionofSelector_DivertorContacts	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	ConditionofSelector_DivertorContacts	IF either the condition of "Selector-Condition of Contacts" or "Divertor-Condition of Contacts" is 4 then "Substantial Deterioration" Otherwise if either of them have a Value of 3 then "Some Deterioration " Otherwise if either have a Value of 2 then "Normal Wear" otherwise if either have a Value of 1 then "As New" otherwise BLANK	STGDW04	Condition_Dim	MeasureName AS CONDFLEX, CONDFLEXD, CONDFLEXS	ConditionofSelector_DivertorContacts = Case When ptcc.CONDCOND = 4 or ptcc.CONDCONS = 4 then 'Substantial Deterioration' When ptcc.CONDCOND = 3 or ptcc.CONDCONS = 3 then 'Some Deterioration' When ptcc.CONDCOND = 2 or ptcc.CONDCONS = 2 then 'Normal Wear' When ptcc.CONDCOND = 1 or ptcc.CONDCONS = 1 then 'As New' Else '' End ,
132kV Transformer	M17DI25	ConditionofSelector_DivertorBraids	As New,Normal Wear,Some Deterioration,Substantial Deterioration	Latest data, per asset	ConditionofSelector_DivertorBraids	IF either the condition of "Selector-Condition of flexible Braids" or "Divertor-Condition of Flexible Braids" or "condition of Flexible Braids" is 4 then "Substantial Deterioration" Otherwise if any of them have a Value of 3 then "Some Deterioration " Otherwise if any have a Value of 2 then "Normal Wear" otherwise if any have a Value of 1 then "As New" otherwise BLANK	STGDW04	Condition_Dim	MeasureName AS CONDFLEX, CONDFLEXD, CONDFLEXS	ConditionofSelector_DivertorBraids = Case When ptcc.CONDFLEX = 4 or ptcc.CONDFLEXD = 4 or ptcc.CONDFLEXS = 4 then 'Substantial Deterioration' When ptcc.CONDFLEX = 3 or ptcc.CONDFLEXD = 3 or ptcc.CONDFLEXS = 3 or ptcc.DEFBRAID = 4 then 'Some Deterioration' When ptcc.CONDFLEX = 2 or ptcc.CONDFLEXD = 2 or ptcc.CONDFLEXS = 2 then 'Normal Wear' When ptcc.CONDFLEX = 1 or ptcc.CONDFLEXD = 1 or ptcc.CONDFLEXS = 1 then 'As New' Else '' End,

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI26	MainTransformerPartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	MainTransformerPartialDischarge	For the Transformer equipment item where there is an Outstanding CONDDISC defect then the value is at least "High Not Confirmed " but if additionally the Count of count of the "CONDDISC" measure with a Value of 4 overtime excess 3 then it is "High Confirmed" Else if there is no outstanding defect and the Count of CONDISC measures with a Value of 4 is more than 1 then Medium Else if there is a closed defect then "Low" Else Blank	STGDW05	Condition_Dim	Conddisc	Select * , PartialDischarge = Case When LastDEFECTValue = 4 and Countof4 >= 3 then 'High (Confirmed)' When LastDEFECTValue = 4 and Countof4 < 3 then 'High (Not Confirmed)' When LastDEFECTValue is NULL and Countof4 >= 4 then 'High (Not Confirmed)' ---- added line to compensate for poor data quality on isrowcurrent When Countof4 > 1 then 'Medium' When LastDEFECTValue = 1 then 'Low' Else '' EndFROM (SELECT ap.Equip_No ,count (cdA.Measuredatekey) as 'Countof4' ,cdC.MeasureValue as 'LastDEFECTvalue' FROM [STGDW03].[RRP].[Age_Profile_Data_Inst_Date_2014_5] ap Left join [STGDW04].[dbo].[Condition_dim] cdA on cdA.equipno = ap.equip_no and cdA.measurename = 'CONDDISC' and cdA.Measurevalue = 4 and cdA.islatestmeasure <> 1 ---Get all inspections (not defects) Left join [STGDW04].[dbo].[Condition_dim] cdC on cdC.equipno = ap.equip_no and cdC.measurename = 'CONDDISC' and cdC.islatestmeasure = 1 ----get last where ap.ofgem_row in ('101') group by ap.Equip_No , cdC.measurevalue)b
132kV Transformer	M17DI27	Temperature Readings	Normal,Moderately High,Very High	Latest data, per asset	TemperatureReadings	If we do not have a Winding temperature and we do not have Winding Trip Temperatures or an alarm value Then BLANK However , If we have a Winding temperature and a Both Winding Trip Temperature Settings or an alarm value then. If the Temperature is equal to higher than either Trip value or alarm value then "Very High" If the WINTEMP is 90% or more than the Alarm value then Moderately High Ith the WINTEMP is 80% or more than the Trip values then Moderately High	STGDW04	Condition_Dim		TemperatureReadings = case When Ptxc.WINTEMP is Null or ptxc.WINTEMP = 0 then '' When (ptxc.WTI1ALARM is NULL or ptxc.WTI1ALARM = 0) and (ptxc.WTI2ALARM is NULL or ptxc.WTI2ALARM = 0) and (ptxc.TRIPWTI1 is NULL or ptxc.TRIPWTI1 = 0) and (ptxc.TRIPWTI2 is NULL or ptxc.TRIPWTI2 = 0) then '' when ptxc.WINTEMP >= ptxc.TRIPWTI1 then 'Very High' when ptxc.WINTEMP >= ptxc.TRIPWTI2 then 'Very High' when ptxc.WINTEMP >= ptxc.WTI1ALARM then 'Very High' when ptxc.WINTEMP >= ptxc.WTI2ALARM then 'Very High' when ptxc.WINTEMP >= 0.9* ptxc.WTI1ALARM or ptxc.WINTEMP >= ptxc.WTI2ALARM*.9 then 'Moderately High' when ptxc.WINTEMP >= 0.8* ptxc.TRIPWTI1 or ptxc.WINTEMP >= ptxc.TRIPWTI2*.8 then 'Moderately High' else 'Normal' End
132kV Transformer	M17DI28	TapchangerPartialDischarge	Low,Medium,High (Not Confirmed),High (Confirmed)	Latest data, per asset	TapchangerPartialDischarge	For the tap changer equipment item where there is an Outstanding CONDDISC defect then the value is at least "High Not Confirmed " but if additionally the Count of count of the "CONDDISC" measure with a Value of 4 overtime excess 3 then it is "High Confirmed" Else if there is no outstanding defect and the Count of CONDISC measures with a Value of 4 is more than 1 then Medium Else if there is a closed defect then "Low" Else Blank	STGDW04	Condition_Dim	CONDDISC	Select * , PartialDischarge = Case When LastDEFECTValue = 4 and Countof4 >= 3 then 'High Confirmed' When LastDEFECTValue = 4 and Countof4 < 3 then 'High (Not Confirmed)' When LastDEFECTValue is NULL and Countof4 >= 4 then 'High (Not Confirmed)' ---- added line to compensate for poor data quality on isrowcurrent When Countof4 > 1 then 'Medium' When LastDEFECTValue = 1 then 'Low' Else '' EndFROM (SELECT ed.EquipNo ,count (cdA.Measuredatekey) as 'Countof4' ,cdC.MeasureValue as 'LastDEFECTvalue' FROM [STGDW04].[dbo].[Equip_Dim] ed Left join [STGDW04].[dbo].[Condition_dim] cdA on cdA.equipno = ed.equipno and cdA.measurename = 'CONDDISC' and cdA.Measurevalue = 4 and cdA.islatestmeasure <> 1 ---Get all inspections (not defects) Left join [STGDW04].[dbo].[Condition_dim] cdC on cdC.equipno = ed.equipno and cdC.measurename = 'CONDDISC' and cdC.islatestmeasure = 1 -----get last where Ed.equipclass = 'TC' group by ed.EquipNo , cdC.measurevalue)b
132kV Transformer	M17DI29	TransformerTestDate		Latest data, per asset	TransformerTestDate	This the most recent date associated with Dissolved gas readings and Moisture readings	STGDW04	Condition_Dim		Select into Pivot .....cdo.measureName IN('17H2O','04H2O_COR','19ACIDITY','24BDVIEC') and cdo.COMPPOSDATA = ' BMT DG' .....Of the most recent date … .....substring(convert(varchar(14),ttd.TxTestDate) ,7,2)+'/'+substring(convert(varchar(14),ttd.TxTestDate) , 5,2) +'/'+substring(convert(varchar(14),ttd.TxTestDate) ,3,2) as TxTestDate

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI30	Transformer OilMoisture		Latest data, per asset	TransformerOilMoisture	To cater for the different readings held over time there are two possible values Therefore TransformerOilMoisture is the latest value for measure 17H2O if we have it otherwise the latest value for 04H2O Otherwise BLANK	STGDW04	Condition_Dim		TransformerOilMoisture = Case When ptxc.X04H2O_COR is Null and ptxc.X17H2O is not NULL THEN ptxc.X17H2O When ptxc.X17H2O is NULL and ptxc.X04H2O_COR is NOt NULL THEN ptxc.X04H2O_COR ELSE '' END,
132kV Transformer	M17DI31	Transformer OilAcidity		Latest data, per asset	TransformerOilAcidity	To cater for the different readings held over time there are two possible values Therefore Transformer- Oil Acidity is the latest value for measure 19ACIDITY if we have it otherwise the latest value for OILDGAACI Otherwise BLANK	STGDW04	Condition_Dim		TransformerOilAcidity = Case WHEN ptxc.X19ACIDITY <= 1 then ptxc.X19ACIDITY WHEN (ptxc.X19ACIDITY is Null or Ptxc.X19ACIDITY >1)and ptxc.OILDGAACI is not NULL and ptxc.OILDGAACI <1 THEN ptxc.OILDGAACI ELSE '' End,
132kV Transformer	M17DI32	Transformer OilBreakdown		Latest data, per asset	TransformerOilBreakdown	The latest Transformer oil breakdown measure is used unless it is out of Range i.e. not with 0 to 100 (e.g. 000000105330 has a value of 742 [70+ instances raised, BSSG advised Feb2016])	STGDW04	Condition_Dim		TransformerOilBreakdown = Case WHEN ptxc.X24BDVIEC >= 0 and ptxc.X24BDVIEC <=100 THEN ptxc.X24BDVIEC ELSE '' End,
132kV Transformer	M17DI33	TapchangerTestDate		Latest data, per asset	TapchangerTestDate	The Test Date is the Maximum last date (before 20150401 for 2014/15 model) for one of the any of the following Measures ('04H2O_COR','19ACIDITY','24BDVIEC','17H2O','OILDGAACI') used for Acidity, Moisture or Oil Breakdown against the Tap changer where the measuring point is ' BUCH DG'	STGDW04	Condition_Dim	TC values for	SELECT a.EquipNo, substring(convert(varchar(14),a.MeasureDateKey) ,7,2)+'/'+substring(convert(varchar(14),a.MeasureDateKey) , 5,2) +'/'+substring(convert(varchar(14),a.MeasureDateKey) ,3,2) as TapchangerTestDate INTO #PivotTCDate FROM (SELECT Equip_No, MAX(MeasureDateKey) AS MeasureDateKey FROM EGRPSQL01.[Regdb].[APR16].Condition_Dim CD WHERE (CD.MeasureName IN ('04H2O_COR','19ACIDITY','24BDVIEC','17H2O','OILDGAACI') AND CD.CompPosData <> ' BUCH DG') ---- AND CD.MeasureDateKey < 20150401 removed as does not work with is latest measure GROUP BY cd.EquipNo
132kV Transformer	M17DI34	TapchangerOilMoisture		Latest data, per asset	TapchangerOilMoisture	Tap changer moisture is not recorded if all values for both 04H2O_COR and 17H2O are either Null or Zero If both measures are present then 04H2O_COR is used in preference to 17H2O (see Appendix 4 for examples) .If only one of the values are present then that value is there.	STGDW04	Condition_Dim	TC values for	TapchangerOilMoisture = Case When (ptcc.X04H2O_COR = 0 or ptcc.X04H2O_COR is NULL) and (ptcc.X17H2O = 0 or ptcc.X17H2O is NULL) then '' When ptcc.X04H2O_COR is not Null then cast (ptcc.X04H2O_COR as Varchar) When ptcc.X04H2O_COR is Null and ptcc.X17H2O is not NULL then cast (ptcc.X17H2O as Varchar) Else '' End,
132kV Transformer	M17DI35	TapchangerOilAcidity		Latest data, per asset	TapchangerOilAcidity	Tap changer acidity is not recorded if all values for both 19Acidity and OILDGAACI are either Null or Zero If both measures are present then 19Acidity is used in preference to OILDGAACI .If only one of the values are present then that value is there.	STGDW04	Condition_Dim	TC values for	TapchangerOilAcidity = Case When (ptcc.X19ACIDITY = 0 or ptcc.X19ACIDITY is NULL) and (OILDGAACI = 0 or OILDGAACI is NULL) then '' When ptcc.X19ACIDITY is not Null and cast(ptcc.X19ACIDITY as FLOAT) <10 then cast (ptcc.X19ACIDITY as Varchar) When ptcc.X19ACIDITY is Null and OILDGAACI is not NULL and OILDGAACI <10 then cast (OILDGAACI as Varchar) else '' End,
132kV Transformer	M17DI36	TapchangerOilBreakdown		Latest data, per asset	TapchangerOilBreakdown	The latest tap changer oil breakdown measure is used unless it is out of Range i.e. not with 0 to 100 (see TX rule M25DI32)	STGDW04	Condition_Dim	TC values for	TapchangerOilBreakdown = Case When ptcc.X24BDVIEC is not Null and cast (ptcc.X24BDVIEC as FLOAT) >= 0 and cast (ptcc.X24BDVIEC as float) <=100 then cast (ptcc.X24BDVIEC as Varchar) else '' End
132kV Transformer	M17DI37	FFATestDate		Latest data, per asset	FFATestDate	The Test Date is the Maximum last date (before 20150401 for 2014/15 model)	STGDW04	Condition_Dim	TC values for	Where measurename = '28FFA' and measuredatekey > 20050400 and measuredatekey < 20150400 and CompPosdata = ' BMT DG' and measurevalue <> 0 order by equipno, measuredatekey

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI38	FFAppm		Latest data, per asset	FFAppm	The FFA Value is taken from the Measure 28FFA against the Transformer where the measuring point is ' BMT DG' against the Transformer NO measure over 10 years old is Included. The Average FFA is used , unless the last measure is Higher than the Average in which case the latest measure is used (See appendix 5 for example logic)	STGDW04	Condition_Dim		Where measurename = '28FFA' and measuredatekey > 20050400 and measuredatekey < 20150400 and CompPosdata = ' BMT DG' and measurevalue <> 0 order by equipno, measuredatekey (FOR FURTHER LOGIC SEE APPENDIX 5)
132kV Transformer	M17DI39	ReliabilityFactorInput		Latest data, per asset	ReliabilityFactorInput	Always blank	N/A	N/A	N/A	N/A
132kV Transformer	M17DI40	ReliabilityCollarInput		Latest data, per asset	ReliabilityCollarInput	Always Blank	N/A	N/A	N/A	N/A
132kV Transformer	M17DI41	NoOfUnits		Latest data, per asset	NoOfUnits	Always 1	N/A	N/A	N/A	N/A
132kV Transformer	M17DI42	OilSampleDate		Many Rows Per Asset	OilSampleDate	The latest date associated with one of the following measures against the transformer ('05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6') where the measuring point is = ' BMT DG') Converted to format DD/MM/YYYY	STGDW04	Condition_Dim	'05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6'	,'OilSampleDate' = Case when aa.measuredatekey is Null then '' when aa.measuredatekey = 0 then '' Else RIGHT (aa.measuredatekey ,2) +'/'+ Substring(Cast(aa.measuredatekey as VARCHAR),5,2) + '/' + Left(aa.measuredatekey,4) End …….... ..... (cd.Measurename IN ('05DG_H2','09DG_C2H2','08DG_C2H4','06DG_CH4','07DG_C2H6') and cd.CompPosData = ' BMT DG') and cd.measuredatekey > 20060000 and cd.measuredatekey < 20150401
132kV Transformer	M17DI43	HydrogenH2		Many Rows Per Asset	HydrogenH2	The latest valid value for '05DG_H2' in the last 10 Years	STGDW05	Condition_Dim	05DG_H2	, HydrogenH2 = Case when aa.measurevalue >= 0 and aa.measurevalue is not NULL then aa.MeasureValue else '' end
132kV Transformer	M17DI44	AcetyleneC2H2		Many Rows Per Asset	AcetyleneC2H2	The latest valid value for '09DG_C2H2' in the last 10 Years	STGDW06	Condition_Dim	09DG_C2H2	, AcetyleneC2H2 = Case when cast (P.X09DG_C2H2 as FLOAT) >= 0 and P.X09DG_C2H2 is not NULL then P.X09DG_C2H2 else '' end
132kV Transformer	M17DI45	EthyleneC2H4		Many Rows Per Asset	EthyleneC2H4	The latest valid value for '08DG_C2H4' in the last 10 Years	STGDW07	Condition_Dim	08DG_C2H4	, EthyleneC2H4 = Case when cast (P.X08DG_C2H4 as FLOAT) >= 0 and P.X08DG_C2H4 is not NULL then P.X08DG_C2H4 else '' end
132kV Transformer	M17DI46	MethaneCH4		Many Rows Per Asset	MethaneCH4	The latest valid value for '06DG_CH4' in the last 10 Years	STGDW08	Condition_Dim	06DG_CH4'	, MethaneCH4 = Case when cast (P.X06DG_CH4 as FLOAT) >= 0 and P.X06DG_CH4 is not NULL then P.X06DG_CH4 else '' end
132kV Transformer	M17DI47	EthaneC2H6		Many Rows Per Asset	EthaneC2H6	The latest valid value for '07DG_C2H6' in the last 10 Years	STGDW09	Condition_Dim	07DG_C2H6	,EthaneC2H6 = Case when cast (P.X07DG_C2H6 as FLOAT) >= 0 and P.X07DG_C2H6 is not NULL then P.X07DG_C2H6 else '' end
132kV Transformer	M17DI48	TypeSafetyRating	Low,Medium,High	Latest data, per asset	TypeSafetyRating	EquipTypeSafetyRating is calculated as 'Low' if the ESCEquipRisk for the asset, is 'Low', 'Medium' if the ESCEquipRisk for the asset, is 'Medium' and 'High' if the ESCEquipRisk for the assets 'High', Note 'Very High' is transformed to 'High' as per data specification. otherwise it is left blank.	STGDW04	ESQCMeasures_Dim		TypeSafetyRating = Case when esq.ESCEquipRisk = '1 - LOW' then 'Low' when esq.ESCEquipRisk = '2 - MEDIUM' then 'Medium' when esq.ESCEquipRisk = '3 - HIGH' then 'High' when esq.ESCEquipRisk = '4 - V.HIGH' then 'High' Else '' END,

Model	SpecID	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI49	LocationSafetyRating	Low,Medium,High	Latest data, per asset	LocationSafetyRating	EquipLocationSafetyRating is calculated as 'Low' if the ESQCLocationRisk for the asset, is 'Low', 'Medium' if the ESQCLocationRisk for the asset, is 'Medium' and 'High' if the ESQCLocationRisk for the asset, is 'High', Note 'Very High' is transformed to 'High' as per data specification. otherwise it is left blank.	STGDW04	ESQCMeasures_Dim		LocationSafetyRating = Case when esq.ESQCLocationRisk = '1 - LOW' then 'Low' when esq.ESQCLocationRisk = '2 - MEDIUM' then 'Medium' when esq.ESQCLocationRisk = '3 - HIGH' then 'High' when esq.ESQCLocationRisk = '4 - V.HIGH' then 'High' Else '' END,
132kV Transformer	M17DI50	SizeEnvironmentRating	33/20kV >20MVA CMR equivalent,33/20kV >10MVA and <=20MVA CMR equivalent,33/20kV <=10MVA CMR equivalent,33/11 or 6.6kV >20MVA CMR equivalent,33/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,33/11 or 6.6kV <=10MVA CMR equivalent,66/20kV >20MVA CMR equivalent,66/20kV >10MVA and <=20MVA CMR equivalent,66/20kV <=10MVA CMR equivalent,66/33kV,66/11/11kV,66/11 or 6.6kV >20MVA CMR equivalent,66/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,66/11 or 6.6kV <=10MVA CMR equivalent	Latest data, per asset	SizeEnvironmentRating	Based on the Value of ; PWV1 and the First Secondary Winding Voltage The Maximum Rating (RATINGMAXCON) and The second secondary winding Voltage The Size environment rating is determined (see table Appendix 6)	STGDW04	NPL_NonCritical_Dim	PWV1 SWKV1 SWKV2 RATINGMAXCON	See Appendix 6

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17DI51	ProximityRating	Not Close to Water Course (>120m) or No Oil,Moderately Close to Water Course (between 80m and 120m),Close to Water Course (between 40m and 80m),Very Close to Water Course (<40m)	Latest data, per asset	ProximityRating		Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets	Value Provided by TCS from NETMAP analysis in Alfresco spreadsheets
132kV Transformer	M17DI52	Bunding	Bunded,Not Bunded	Latest data, per asset	Bunding	Determine if bunding exists for the TX by comparing Plant numbers (excluding the first two characters) for the Bund on the site to the TX on the Site When Know exceptions exist they are catered for e.g. Certain site numbers and Equipment Numbers	N/A	N/A	N/A	SELECT ed.Equip_No, Bunded = Case When bd.plantno is Not Null then 'Bunded' When tx.Siteno in ('008457','008458','008468','008527','008563','0H4015','0H8051') then 'Bunded' -----Known Sites where Bund holds "T1/T2" or something else that identifies a Holistic Bund in Name When ed.equip_no in ('000000103234', '000003218989') then 'Bunded' ---- Peculiar site with many bunds and TX and data errors rendering it not programmatically discernible. Else 'Not Bunded' End FROM [EGRPSQL01].[STGDW03].[RRP].[Age_Profile_Data_Inst_Date_2014_5] ed LEFT JOIN [EGRPSQL01].[STGDW04].[dbo].[Equip_Dim] TX on ed.equip_NO = tx.equipNO and tx.IsRowCurrent = 1 LEFT JOIN [EGRPSQL01].[STGDW04].[dbo].[Equip_Dim] bd on bd.Equipclass = 'BN' and (RIGHT(bd.Plantno,2) = RIGHT(tx.Plantno,2)) and tx.siteno = bd.siteno and bd.isrowcurrent = 1 and bd.equipstatus = 'CO'
132kV Transformer	M17DI53	MaximumDemand		Latest data, per asset	MaximumDemand	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENMAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENmAC analysis in Alfresco spreadsheets	Value Provided by TCS from ENmAC analysis in Alfresco spreadsheets

Model	SpecI D	Data Point Name	Allowable Values	Supply Details	High Level Description	Business Rules	Source Database	Source Table	Source Field	SQL Logic
132kV Transformer	M17D I54	NetworkType	Secure,Unsecure	Latest data, per asset	NetworkType	Always 'Secure'	N/A	N/A	N/A	SELECT 'Secure' AS NetworkType
132kV Transformer	M17D I55	TypeFinancialRating	33/20kV >20MVA CMR equivalent,33/20kV >10MVA and <=20MVA CMR equivalent,33/20kV <=10MVA CMR equivalent,33/11 or 6.6kV >20MVA CMR equivalent,33/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,33/11 or 6.6kV <=10MVA CMR equivalent,66/20kV >20MVA CMR equivalent,66/20kV >10MVA and <=20MVA CMR equivalent,66/20kV <=10MVA CMR equivalent,66/33kV,66/11/11kV,66/11 or 6.6kV >20MVA CMR equivalent,66/11 or 6.6kV >10MVA and <=20MVA CMR equivalent,66/11 or 6.6kV <=10MVA CMR equivalent	Latest data, per asset	TypeFinancialRating	Transformers this is the same value as same as Size Environment rating	STGDW04	NPL_NonCritical_Dim	PWV1 SWKV1 SWKV2 RATINGMAXCON	See Appendix 6
132kV Transformer	M25D I56	AccessFinancialRating	Type A Criteria - Normal Access, Type B Criteria - Constrained/Confined, Type C Criteria - Underground	Latest data, per asset	AccessFinancialRating	If Equipment is Outdoor then normal access else check location record for Equipment if Type C then type C underground else if type B then Type B else "no confined space" then normal, else blank	STGDW04	Equipment Dim and Location DIM , NPL_NonCritical_Dim	AttributeValue	AccessFinancialRating = Case when eqd.equipSituation IN ('Outdoor', 'GRP') Then 'Type A Criteria - Normal Access' when ld.ConfinedSpace = 'Type C Confined Space' Then 'Type C Criteria - Underground' when ld.ConfinedSpace IN ('Type B (24 Hours)' , 'Type B (Out Of Hours) ') Then 'Type B Criteria - Constrained/Confined' When ld.ConfinedSpace IN ('No Confined space' , 'Type A Confined Space') Then 'Type A Criteria - Normal Access' ELSE '' END --- ie. all equipsituation of NULL or Indoor where Confined space is NULL