

# RIO-ED1 regulatory instructions and guidance: Annex A – Glossary

## Guidance

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### Overview:

RIO-ED1 is the price control for electricity distribution network operators (DNOs) from 1 April 2015 to 31 March 2023.

This document is part of the regulatory instructions and guidance (RIGs) for RIO-ED1.

# Contents

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<b>Contents .....</b>	<b>2</b>
<b>1. Introduction .....</b>	<b>25</b>
Scope of this document .....	25
<b>2. List of definitions .....</b>	<b>26</b>
A .....	26
Abortive Call (SM) .....	26
Acceptance Date .....	26
Accounting Standards .....	26
Accruals and Prepayments (non ordinary level of business) .....	26
Active Network Management - Dynamic Network Reconfiguration .....	26
Activity Volumes - Inspections .....	26
Agency Staff .....	27
Allowed Related Party Margin .....	27
All Voltages .....	27
Alternatives .....	27
Anti Theft Security Enhancements .....	27
Applicant .....	27
Application Received Date .....	27
Areas of Outstanding Natural Beauty (AONB) .....	27
Area of Public Order Concern .....	28
Asbestos Management – Containment or Removal .....	28
Asbestos Management – Meter Position Containment .....	28
Asbestos Management - Meter Position Replacement .....	28
Asbestos Management – Surveys and Signage .....	28
Asbestos Meter Board Replacement (SM) .....	28
Asset Register .....	28
Asset Register - Other Movements .....	29
Asset Replacement .....	29
Associated Works .....	30
Atypicals - Early Retirement Deficiency Contributions (ERDCs) .....	30
Atypicals - Atypicals Non Severe Weather in Totex in Price Control .....	30
Atypicals - Atypicals Non Severe Weather excluded from Totex in Price Control ..	31
Atypicals - Atypicals Non Severe Weather outside Price Control .....	31
Atypicals - Non Severance Related Restructuring/Merger Costs .....	32
Atypicals - Rebranding .....	32
Atypicals - Severance (exc ERDCs) .....	32
Average Asset Lives .....	32
Average Consequence of Asset Failure .....	32
Average Overall Consequence of Failure .....	32
Average Probability of Asset Failure .....	32
B .....	32
Balancing & Settlement Code (BSC) .....	32
Baseline Scenario .....	32
Basic Meter Asset Provision .....	33
Batteries at GM HV Substations .....	33
Batteries at 33kV Substations .....	33

Batteries at 66kV Substations.....	33
Batteries at 132kV Substations.....	33
Biomass & Energy Crops (not CHP) .....	33
Black Start.....	33
Black Start Resilience (BSR).....	34
Black Start Resilience (BSR) - DC disconnection schemes .....	34
Black Start Resilience (BSR) - Generator.....	34
Black Start Resilience (BSR) - Land lines & Internal Telephony .....	34
Black Start Resilience (BSR) - Mobile Voice Communications .....	34
Black Start Resilience (BSR) - Protection Batteries .....	34
Black Start Resilience (BSR) - SCADA Batteries .....	35
Black Start Resilience (BSR) - Securing of Existing Telecommunications	
Infrastructure.....	35
Black Start Resilience (BSR) of SCADA Infrastructure .....	35
Black Start Resilience (BSR) of Substation Batteries .....	35
BT 21st Century (BT21CN).....	35
BT21CN - Infrastructure Enabling.....	35
BT21CN - Protection Communication Circuits - Replacement .....	35
BT21CN - Protection Operational Measures.....	36
Budget Estimate .....	36
Building .....	36
Buildings - Electricity .....	36
Buildings Energy Usage .....	36
Buildings - Other Fuels .....	36
Business Carbon Footprint (BCF).....	37
Business Rates Payments.....	37
Business Support Costs .....	37
Business Transport.....	37
C .....	37
Cable .....	37
Cable Bridge.....	37
Cable Bridge - Inspections .....	37
Cable Overlays .....	38
Cable Pit.....	38
Cable Tunnel .....	38
Cable Tunnel - Inspections.....	38
Call Centre.....	38
Capacity Released.....	39
Capital Expenditure.....	39
Carbon Emission .....	39
Catastrophic Failure .....	39
Category 1 Exceptional Event .....	39
Category 2 Exceptional Event .....	40
Category 3 Exceptional Event .....	41
Cash Basis .....	41
CEO etc .....	42
Circuit Breaker .....	43
Circuit Reinforcement .....	43
Civil Works.....	43
Civil Works At HV Indoor Substations .....	43
Civil Works At HV Outdoor Substations .....	43
Civil Works At 33kVSubstation.....	43

Civil Works At 66kV Substation .....	43
Civil Works At 132kV Substation .....	43
Civil Works Driven By Asset Replacement .....	43
Civil Works Driven By Condition Of Civil Items .....	44
Civils Works Associated With LV Asset Replacement (not at Substation) .....	44
Civils Works Associated With HV or LV Asset Replacement (at secondary substation).....	44
Civils Works Associated With HV Asset Replacement (at primary substation) .....	44
Civils Works Associated With 33kV Asset Replacement .....	44
Civils Works Associated With 66kV Asset Replacement .....	44
Civils Works Associated With 132kV Asset Replacement.....	44
Clerical Support – see Engineering Management and Clerical Support.....	45
Clock Stopping .....	45
Closely Associated Indirects .....	45
Common Connection Charging Document .....	45
Common Network Asset Indices Methodology .....	45
Communications for Switching and Monitoring .....	45
Complaint .....	45
Completion Date .....	46
Condition Based Functional Failure .....	46
Conductor Replacement.....	46
Connected MPANs/points of connection provided as part of a Connection Project which has an element subject to the apportionment rules .....	46
Connected MPANs/points of connection provided as part of a Connection Project which has no element subject to the apportionment rules .....	46
Connecting Party .....	46
Connection.....	46
Connection Project.....	47
Connection Project: All other LV (with only LV work) .....	47
Connection Project: DG Connection at LV Involving LV Assets Only .....	47
Connection Project: DG Connection at Any Voltage that Where HV is the Highest Voltage Worked On .....	47
Connection Project: DG Connection at Any Voltage that Where EHV is the Highest Voltage Worked On .....	47
Connection Project: DG Connection at Any Voltage that Where 132kV is the Highest Voltage Worked On.....	47
Connection Project: EHV End Connection Involving Only EHV Work .....	47
Connection Project: EHV Metered DPCR4 Connection Projects.....	48
Connection Project: HV End Connections Involving EHV Work.....	48
Connection Project: HV End Connections Involving Only HV Work .....	48
Connection Project: HV Metered DPCR4 Connection Projects .....	48
Connection Project: LV End Connections Involving EHV Work .....	48
Connection Project: LV End Connections Involving HV Work .....	48
Connection Project: LV Metered DPCR4 Connection Projects .....	48
Connection Project: Single Service LV Connection .....	48
Connection Project: Small Project Demand Connection (LV) .....	48
Connection Project: 132kV End Connections Involving Only 132kV Work .....	49
Connection Project: 132kV Metered DPCR4 Connection Projects.....	49
Connection Projects Completed Within Year.....	49
Connection Projects - Direct Costs .....	49
Connection Projects; DG .....	49
Connection Projects; DG (DPCR4) .....	49

Connection Projects; DPCR4 .....	49
Connection Projects Not Completed Within Year .....	49
Connection Projects Unmetered Connection (UMC) .....	49
Connection/Customer Type .....	50
Connection Work in Year .....	50
Consac .....	50
Consequence of Failure .....	50
Consequential Assets .....	50
Consumer Complaint .....	50
Contaminated Land .....	50
Contaminated Land Clean Up .....	50
Contestable .....	50
Contingent Pension Asset Costs – see NABC – Contingent Pension Asset Costs ...	50
Contractors .....	51
Control Centre .....	51
Control Centre Hardware and Software .....	52
Controllable Opex .....	52
Conventional Solution .....	53
Conversion of Wayleaves to Easements .....	53
Core Business Support .....	53
Core CAI .....	53
Cost App Future Comer - Original Job id .....	53
Cost App Future Comer - Rebate to DNO .....	54
Cost App Future Comer - Rebate to initial connectee .....	54
Cost of scheme (£m) .....	54
Cost per unit £/MWh .....	54
Cost Recoveries .....	54
Cost Type .....	54
Critical Customers .....	55
Critical National Infrastructure (CNI) .....	55
Criticality Index .....	55
Criticality Index Bands .....	55
CT600 .....	55
Currency Overlay .....	55
Currency Swaps .....	56
Customer .....	56
Customer Contributions .....	56
Customers Interrupted (CIs) .....	56
Customers Interrupted by Short Interruptions (SIs) .....	57
Customer Minutes Lost (CMLs) .....	57
Customers Re-interrupted (RIs) .....	57
Cut Out .....	57
Cut Out (Metered) .....	57
Cut Out Changes (SM) .....	57
D .....	58
Damage Fault Rates .....	58
Damage Incident .....	58
Data Cleansing .....	58
Data Communications .....	58
Data Services (MPAS and data transfer) .....	58
Deadlock Letters .....	58
Debt - see Net Debt .....	58

Debt Cap Disallowance .....	58
Deferred Revenue Expenditure .....	58
Defined Benefit Pension Scheme (DB) .....	59
Defined Contribution Pension Scheme (DC) .....	59
Demand Connection .....	59
Demand Driver .....	59
Demand Forecasting.....	59
Demand Group .....	59
Demand Side Management Payments .....	59
De Minimis Business.....	59
Derogation .....	60
Designated Areas.....	60
DG – see Distributed Generation .....	60
DG Network Unavailability (MWh) .....	60
DG Voltage Level .....	60
Direct Activities .....	60
Direct Expenditure .....	61
Directly Attributable Costs.....	61
Directly Remunerated Services .....	61
Directly Remunerated Services (exc connections) .....	61
Disallowed Expenditure (LCN Fund).....	61
Disallowed Expenditure (NIC) .....	61
Disallowed Related Party Margins.....	61
Discretionary Funding.....	61
Dismantlement .....	61
Distributed Generation (DG).....	62
Distribution Asset.....	62
Distribution Losses.....	62
Distribution Losses - Justified Costs.....	62
Distribution Losses Strategy .....	62
Distribution Network Operator (DNO) .....	62
Diversionsary Works .....	62
Diversions.....	62
Diversions - Wayleave Terminations.....	63
Diversions - Highways .....	63
Domestic Premises.....	63
DPCR4 .....	63
DPCR4 Connection Project - see Connection Projects; DPCR4 .....	63
DPCR5 .....	63
DRS1. Connection Services .....	63
DRS2. Diversionsary Works Under an Obligation .....	64
DRS3. Works Required by an Alteration of Premises.....	64
DRS4. Top-up, Standby, and Enhanced System Security.....	64
DRS5. Revenue Protection Services.....	64
DRS6. Metering Services.....	64
DRS7. Smart Meter Roll-out Rechargeable Services.....	64
DRS8. Value Added Services .....	64
DRS9. Miscellaneous .....	64
DSCP (Distribution Systems Connection Point).....	64
Dual Quote.....	64
DUoS - see Distribution Use of System .....	65
E .....	65

Earthing Upgrades .....	65
Easements .....	65
ECCR.....	65
ECDGS - Electricity Connections Distributed Generation Standards.....	65
ECGS - Electricity Connections Guaranteed Standards .....	65
ED1 Final Determination .....	65
EHV (Extra High Voltage).....	65
EHV Systems.....	66
EHV Sub Cable .....	66
Elective Communication Services .....	66
Electrical Energy Storage .....	66
Electricity Distributor.....	66
Electronic/Electric Vehicle Charging Point.....	66
Element of Connection that is Sole Use Funded.....	66
Element of Connection that is Subject to the Apportionment Rules - Customer Funded .....	67
Element of Connection that is Subject to the Apportionment Rules - DUoS Funded .....	67
Eligible NIA Expenditure .....	67
Eligible NIC Bid Preparation Costs .....	67
Eligible NIC Project .....	67
Embedded DC Networks .....	67
Emergency Fault Repair Response.....	67
Energisation .....	68
Energy Ombudsman Findings Against the Licensee.....	68
Engineering Management & Clerical Support (EMCS) .....	68
Engineering Recommendation G83/2 (and successor documents) .....	71
Engineering Recommendation G59/2 (and successor documents) .....	71
Enhanced Automatic voltage Control (EAVC) .....	71
Enhanced Physical Security (Capex) .....	71
Environment Agency (EA) .....	71
Environmental Caution - see Environmental Civil Sanction .....	71
Environmental Civil Sanction .....	71
Environmental Compliance Notice - see Environmental Civil Sanction .....	72
Environmental Enforcement Undertaking - see Environmental Civil Sanction .....	72
Environmental Fixed Monetary Penalty - see Environmental Civil Sanction .....	73
Environmentally Beneficial Technologies .....	73
Environmental Management System (EMS Scheme) .....	73
Environmental Prosecution - see Environmental Civil Sanction.....	73
Environmental Reportable Incident - see Environmental Civil Sanction.....	73
Environment Report .....	73
Environmental Restoration Notice - see Environmental Civil Sanction .....	73
Environmental Stop Notice - see Environmental Civil Sanction .....	73
Environmental Variable Monetary Penalty - see Environmental Civil Sanction .....	73
Environmental Warning - see Environmental Civil Sanction .....	73
Equipment to Manage Losses.....	74
ERDCs - see Early Retirement Deficiency Contributions.....	74
ESPS (Electricity Supply Pension Scheme).....	74
ETR 132 – Other Work to Achieve Compliance .....	74
ETR 132 – Overall Network Length Cleared and Meeting ETR 132 Compliance ....	74
ETR 132 – Physical Cut.....	74
ETR 138.....	74

Exceptional Events .....	75
Excluded Market Segments .....	77
Exemptions (for Connections).....	77
Expenditure on DSM to Avoid General Reinforcement .....	77
Export MPAN .....	77
External Parties .....	77
External Rent .....	77
Extra-high voltage (EHV) .....	77
F.....	78
Fair Value .....	78
Fault .....	78
Fault Current Limiters.....	78
Fault Level .....	78
Fault Level Duty > 95% of Rating .....	78
Fault Level Operational Restrictions.....	79
Fault Level - Other .....	79
Fault Level Reinforcement.....	79
Fault Level Reinforcement Schemes .....	79
Fault Level Risk Mitigation.....	79
Fault Level Status At Year End.....	79
Fault Rate .....	79
Fault Rate Asset Category .....	80
Fault Repair .....	80
Faults (PCFM Cost Type) .....	80
Final Connection Date.....	80
Finance and Regulation.....	80
Financial Year .....	81
Fines and Penalties .....	82
Fire Blankets - Link Box .....	82
Fire Protection Substation .....	82
Firm Capacity (FC) .....	82
Fixed.....	82
Flats.....	82
Flexible AC Transmission Systems.....	82
Floating .....	82
Flood Defences .....	83
Flooding Level of Protection.....	83
Flooding Non-Site Specific Costs .....	83
Flooding Risk.....	83
Flooding Risk (ETR 138).....	83
Flooding Site Surveys .....	84
Flood Mitigation .....	84
Flood Mitigation Scheme .....	84
Flood Plain .....	84
Fluid Filled Cables .....	84
Fluid Filled Cables in Service .....	84
Fluid Recovered .....	84
Fluid Used to Top Up Cables .....	85
Fluvial Flooding.....	85
Forecast Amount of Revenue Relating to Theft Recovery.....	85
Free Cashflow.....	85
FRS 101/102 .....	85



Fuel Combustion .....	86
Fuels Other .....	86
Fugitive Emissions .....	86
Full Time equivalent (FTE) Employee .....	86
Funds from Operations .....	86
Fuses (PM) .....	86
Fuses (GM) (TM) .....	86
G .....	86
Gas Insulated Switchgear (GIS) .....	86
Gas Natural .....	87
Gases Other .....	87
General and Fault Level Reinforcement – See Network Design and Engineering ..	87
General Reinforcement .....	87
General Reinforcement (EHV & 132kV N-1) .....	87
General Reinforcement (EHV & 132kV N-2) .....	87
General Reinforcement (EHV & 132kV Other) .....	87
Generation Connection .....	87
Generator Providing Network Support.....	87
Global Tactical Asset Allocation (GTAA) .....	88
GM Indoor Substation.....	88
GM Outdoor Substation.....	88
GM Third Party Substation .....	88
Greenhouse Gas Emission .....	88
GS Payments Paid in Year and Residual from Previous Year - Payment Reconciliation Table.....	88
GSR .....	88
GWh.....	89
H .....	89
Halted Project Revenues (LCN Fund) .....	89
Halted Project Revenues (NIC) .....	89
Health Index (HI).....	89
Health Index Asset category .....	89
Health Index Band .....	89
HHSCP (Half-hourly Settled Connection Point) .....	90
High-cost project threshold .....	90
High priority fault repair - non Traffic Light Controlled .....	90
High priority fault repair - Traffic Light Controlled .....	90
High Voltage (HV) .....	90
Higher Voltages .....	90
Horizontal Clearance .....	90
Houses .....	90
HR (Human Resources).....	90
HV Network.....	91
HV Systems .....	91
HV or EHV End Connections Involving 132kV Work.....	91
HVP (High Value Projects) .....	91
HVP (High Value Projects) – DPCR5.....	92
HV Sub Cables.....	92
Hydro .....	92
I .....	92
IDNO (Independent Distribution Network Operator) .....	92
IFRS - see International Financial Reporting Standards.....	92

Independent Connections Provider (ICP).....	92
Intelligent Control Devices (EVs).....	92
Incident.....	92
Incident on Other Systems.....	93
Income from Theft Recovery .....	93
Independent Connection Provider (ICP) .....	93
Indirect Activities.....	93
Indirect Costs.....	93
Information.....	93
Injurious Affection.....	94
Innovation Roll-out Mechanism (IRM).....	94
Innovative Solutions.....	94
Insourcing.....	94
Inspections .....	94
Inspections - Foot Patrol .....	95
Inspections - Helicopter .....	95
Insulated Conductor .....	95
Insurance Totals .....	95
Insurance - Claims Paid Out to the DNOs .....	96
Intact Capacity .....	96
Interest – see Net Interest.....	96
Interest Rate Swaps.....	96
International Financial Reporting Standards (IFRS) .....	96
Interruptible Contracts .....	96
Interruption .....	96
Intervention .....	97
Involving Onsite Diversionary Works as Part of Project .....	97
IT & Telecoms (Business Support).....	97
IT & Telecoms (Non-Operational).....	98
J.....	99
K .....	99
L.....	100
Labour.....	100
Landfill Gas, Sewage Gas, Biogas (not CHP) .....	100
Large CHP (>=50MW) .....	101
LCN Fund.....	101
LCN Fund Directly Attributable Costs .....	101
LCN Fund Royalties .....	101
Legacy Metering Equipment .....	101
Legal and Safety .....	101
Licence Fee Payments .....	101
Link Box .....	101
Load Index (LI) .....	101
Load Index Firm Capacity.....	102
Load Index Logic.....	103
Load Index Max Demand .....	103
Load Related Capex .....	103
Load Related Expenditure .....	104
Long Life Assets Pool.....	104
Losses .....	104
Low Carbon Technologies (LCTs).....	104
LV (Low Voltage) .....	104

LV Board (WM) .....	105
LV Board (X-type network) (WM) .....	105
LV Circuit Breaker .....	105
LV Main (OHL) Conductor.....	105
LV Main (UG Consac).....	105
LV Main (UG Plastic).....	105
LV Main (UG Paper).....	105
LV Network .....	105
LV Pillar (ID) .....	105
LV Pillar (OD) .....	106
LV Pillars (OD Street Located) .....	106
LV Poles.....	106
LV Services .....	106
LV Service (OHL) .....	106
LV Service (UG) .....	106
LVSSA .....	106
LVSSB .....	106
LV Street Furniture .....	107
LV Systems .....	107
LV Transformer/Regulator .....	107
LV UGB.....	107
LV Underground Service Transfers .....	107
M.....	108
Maintenance Period Demand .....	108
Major Incidents and Emergency Planning – see Control Centre .....	108
Margin.....	108
Margin Included in Quotation Offer.....	108
Market Rent .....	109
Market Segments.....	109
Marshalling kiosk - see Substation RTU, Marshalling Kiosk and Receivers .....	109
Material Change.....	109
Materials.....	110
Medium CHP ( $\geq 5\text{MW}$ , $< 50\text{MW}$ ).....	110
Meshing (Permanent) .....	111
Meshing (Temporary) .....	111
Metered Connection Category.....	111
Metered Quotations standards .....	112
Metering Equipment .....	112
Metering Services – see DRS6. Metering Services .....	112
Micro CHP (domestic) .....	112
Mini CHP ( $< 1\text{MW}$ ) .....	112
Miscellaneous Repairs/Safety Repairs (SM) .....	112
Modelling Assets .....	113
Modern Equivalent Asset Value (MEAV).....	113
Monetised Risk .....	113
MPANs/Points of Connection Adopted From ICPs .....	113
Multiple Circuit .....	113
Multiple Unit Fault.....	113
MVA (Mega volt amperes) .....	113
Multi-Storey .....	113
MWh .....	114
N .....	114

NABC - Any Other Ex-Gratia/Goodwill Compensation Payments .....	114
NABC - Bad Debt Expense (Net of Recoveries).....	114
NABC - Carbon Reduction Commitment Scheme .....	114
NABC - Connections Guaranteed Standards of Performance Compensation Payments.....	115
NABC - Contingent Pension Asset Costs .....	115
NABC - Cost of Items Sold .....	115
NABC - Depreciation.....	115
NABC - DG Network Unavailability Rebate Payments .....	115
NABC - Distributed Generation Standards Direction issued under Standard Condition 15A.....	115
NABC - Ex-Gratia Compensation Payments .....	115
NABC - Ex-Gratia Compensation Payments (Connections) .....	115
NABC - Ex-Gratia Compensation Payments (Distributed Generation Standards Direction issued under Standard Condition 15A) .....	116
NABC - GS Compensation Payments.....	116
NABC - Net Sale Proceeds .....	116
NABC - Non Activity Based Costs .....	116
NABC - Pensions Established Deficit Repair Payments – see Pension Scheme Established Deficit.....	116
NABC - Proceeds of Sale of Non-Operational Assets.....	117
NABC - Proceeds of Sale of Operational Assets .....	117
NABC - Proceeds From Sale of Scrap .....	117
NABC - Profit/Loss on Disposal of Fixed Assets .....	117
NABC - Profit/Loss on Sale of Fixed Assets and Scrap .....	117
National Parks .....	117
National Scenic Areas .....	117
Net Debt.....	117
Net Interest .....	118
Network Asset Indices .....	118
Network Assets.....	119
Network Asset Secondary Deliverables .....	119
Network Assets Workbook.....	119
Network Design & Engineering.....	119
Network Innovation Allowance (NIA) .....	120
Network Investment.....	120
Network Operating Costs .....	120
Network Outputs Revenue Adjustment .....	120
Network Policy.....	120
Network Regulation.....	121
New Transmission Capacity Charges (NTCC) .....	121
New Types of Circuit Infrastructure .....	121
New Works.....	121
NHHSCP (Non-half-hourly Settled Connection Point).....	122
NIC Funding .....	122
NIC Royalties .....	122
Noise Pollution.....	122
Non Activity Based Costs – see NABC – Non Activity Based Costs.....	122
Non-Contestable .....	122
Non-Damage Incident.....	122
Non-DNO Connection Point.....	122
Non-DUoS.....	123

Non-Embedded BMU .....	123
Non-Embedded DCSP .....	123
Non-Firm Contracts .....	123
Non-Load Related Capex – Asset Replacement .....	123
Non-Load Related Capex – Other .....	124
Non Load Related Investment.....	124
Non-Operational Assets .....	124
Non-Operational Capex.....	124
Non-Operational Staff.....	125
Non-Operational Training .....	125
Non-Technical Losses .....	125
Non Trading Rechargeables (NTRs) .....	125
Non-Undergrounding Visual Amenity Schemes.....	125
Non-Variant Costs.....	126
North of Scotland Resilience Schemes .....	126
NRSWA - New Roads and Street Works Act (1991).....	126
O .....	126
O&M Charges .....	126
Occurrences Not Incentivised (ONIs) .....	126
Occurrences Not Requiring Site Visits .....	126
Offshore Wind .....	127
OH Clearance Sites .....	127
OH Horizontal or Vertical Clearance - Outstanding Sites to Be Resolved .....	127
OH Horizontal or Vertical Clearance - Sites Identified In Year .....	127
OH Horizontal or Vertical Clearance - Sites Resolved .....	127
OH Horizontal or Vertical Clearance – Sites Resolved As Part of Other Work .....	128
OHL (Overhead Lines) .....	128
OHL Inside Designated Areas at End of Reporting Year (km) .....	128
OHL (km) Removed During Year .....	128
Oil in Service in Cables .....	128
Oil Pollution Mitigation Scheme - Cables .....	128
Oil Pollution Mitigation Scheme - Non Operational Sites .....	128
Oil Pollution Mitigation Scheme - Operational Sites.....	129
ONI – see Occurrences Not Incentivised .....	129
ONI - Abortive Visits - No Immediate Work Required.....	129
ONI - Asset Repairs Instigated by Troublecall .....	129
ONI - Cut Out Fuses Only (Metered Services) .....	129
ONI - Cut Outs (Metered Services).....	130
ONI - Cut Outs (Metered Services) – non safety and security of supply enquiry .....	130
ONI - Cut Outs (Metered Services) – Prior year Adjustment due to Smart Meter Roll-Out.....	130
ONI - Emergency Disconnections .....	131
ONI – Other Occurrences (Not Affecting Power System Voltage Equipment) .....	131
ONI - Pilot Wire Failures .....	131
ONI - Power System Voltage Equipment / No Unplanned Incident .....	131
ONI - Responding to Critical Safety Calls.....	132
ONI - Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs ..	132
ONI - Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs non safety and security of supply enquiry .....	132
Onshore Wind.....	132
Operational Activities to Manage Losses.....	132
Operation and Maintenance Costs for DG .....	132

Operational IT & Telecoms .....	133
Operational Measures – see BT21CN Protection Operational Measures .....	133
Operational Premises.....	133
Operational Training .....	134
Operational Training - Craftsperson .....	134
Operational Training - Engineers .....	135
Operational Training - Learner Costs .....	135
Operational Training - Leaver .....	136
Operational Training - Leaver - Due to Retirement .....	136
Operational Training - Leaver Due to Other Reasons Than Retirement .....	136
Operational Training - New Recruits .....	136
Operational Training - New Recruit – Craftsperson .....	136
Operational Training - New Recruit – Engineer.....	136
Operational Training - Other Operational Employee .....	136
Operational Training - Operational Refreshers.....	137
Operational Training - Operational Staff.....	137
Operational Training - Operational Up-Skilling .....	137
Operational Training - Trainer and Course Material Costs .....	137
Operational Training - Training Centre and Training Admin Costs .....	137
Operational Training - Training Days .....	138
Operational Transport.....	138
Other Consented Activity .....	138
Other Exceptional Event – see Exceptional Events .....	138
Other Generation .....	138
Other (includes rent and subscriptions) .....	139
Other Income .....	139
Other Metered Standards .....	139
Other Network Investment – see Network Design and Engineering.....	139
Other Operating Costs .....	140
Other Unmetered Connections (non-L.A. or PFI) .....	140
Out of Area Networks .....	140
Out of Area Networks - Network Investment .....	140
Out of Area Networks - Network Operating Costs .....	140
Out of Area Networks - Use of System.....	140
Outsourcing .....	140
Outage Planning and Management – see Control Centre .....	140
Overall Consequence of Failure .....	141
Overhead Line - Inspections .....	141
Overhead Line (Temporary Shrouding) .....	141
Overhead Mains.....	141
Over/Under Recovery .....	141
P.....	141
Pass-Through Costs.....	141
Pass-Through Transmission Connection Point Charges .....	141
PCFM Cost Type – see Price Control Financial Model (PCFM) Cost Type .....	141
Pensions .....	141
Pensionable Pay.....	142
Pension Deficit Repair Payments .....	142
Pension Protection Fund (PPF) .....	142
Pension Protection Fund Levy (PPF Levies) .....	143
Pension Scheme Administration Costs .....	143
Pension Scheme Established Deficit.....	143

Pension Scheme Incremental Deficit.....	144
Photovoltaic .....	144
Physical Loss Reduction Actions .....	144
Physical Security.....	144
Physical Security Upgrade Programme (PSUP) .....	144
Pilot Wire Overhead .....	144
Pilot Wire Underground.....	144
Pluvial Flooding .....	145
POC (Point of Connection).....	145
Post-Delivery Support Agreements (PDSA).....	145
Post 2005 DG .....	145
PPF levy – see Pension Protection Fund Levy .....	145
Pre-Arranged Incident .....	145
Pre-Investment Flooding Risk .....	145
Premises.....	145
Present Flooding Risk .....	145
Present Unmitigated Flooding Risk .....	146
Previously Closed Job .....	146
Price Control Financial Model (PCFM) .....	146
Price Control Financial Model (PCFM) Cost Type .....	146
Primary Network.....	146
Primary Substation.....	146
Primary Reinforcement .....	146
Priority Services Register .....	146
Priority Services Register Customer.....	146
Probability of Failure.....	147
Profit and Loss Statement of Comprehensive Income .....	147
Project Management.....	147
Property Management (Business Support).....	148
Property (Non-Operational).....	148
Protection Schemes (all voltages) .....	148
Provider of Connection Work .....	149
PSUP Direct labour .....	149
Q .....	149
Quality of Service (QoS) .....	149
Quotation.....	150
Quotation Issued Date.....	150
Quotation Offer date .....	150
R .....	150
Rail Electrification .....	150
Rail Electrification Project.....	150
Real-Time Thermal Rating.....	150
Rebuild .....	150
Receivers - see Substation RTU, Marshalling Kiosk and Receivers.....	150
Recoveries of Previously Written Off Debt .....	150
Recovery of Costs .....	151
Recovery of Value of Electricity Taken .....	151
Ref number/Project id .....	151
Reference Case Scenario.....	151
Refurbishment.....	151
Refurbishment Protection Schemes .....	151
Regulatory Fraction .....	152

Regulatory Instructions and Guidance (RIGs) .....	152
Regulated Margin – see Margin .....	152
Regulatory Tax Losses .....	152
Regulatory Year .....	152
Reinforcement .....	152
Reinforcement Works .....	152
Re-interruption – see Customers Re-interrupted (RIs) .....	152
Related Party .....	152
Related Party Margin .....	153
Related Party Margin charged to Related Party by DNO Affiliates or Related Undertakings that do not Trade/Transact with the DNO .....	153
Related Party Margin Total Disallowed .....	153
Related Party Margins Total within Price Control.....	153
Related Party Margin within Price Control Total Allowed .....	153
Related Party Transaction .....	153
Related Party Turnover .....	154
Relevant Authority .....	154
Relevant Consumer .....	154
Relevant Theft of Electricity.....	154
Remote Location Generation (Opex).....	154
Remote Location Generation Capital Costs .....	154
Remote Location Generation Operating Costs: Fuel .....	155
Remote Location Generation Operating Costs: Operation and Maintenance.....	155
Repair & Maintenance.....	155
Repair & Maintenance - Protection Schemes (All Voltages) .....	155
Repair & Maintenance – Substations (Civils).....	156
Repairs.....	156
Repeat Complaint .....	156
Resolved Complaint.....	156
Restoration Stage .....	156
Restructuring .....	156
Retained LCN Fund Royalties .....	157
Retained NIC Royalties .....	157
Returned LCN Fund Royalties .....	157
Returned Royalty Income.....	157
Revenue Protection Services - see DRS5. Revenue protection Services .....	157
RIGs – see Regulatory Instructions and Guidance .....	157
RIIO-ED1 .....	157
RIIO-ED1 Business Plan .....	157
RIIO-ED1 CBA Tool .....	157
Ring Fence Costs .....	157
Rising and Lateral Mains (RLM).....	157
Risk Index .....	158
RLM – LV Mains Inspected.....	158
RLM- LV Mains Repaired or Maintained .....	158
RLM - LV Service Associated with RLM .....	158
RLM - LV Services Associated with RLM Inspected .....	158
RLM - LV Services Associated with RLM Repaired or Maintained .....	158
RMU (Ring Main Unit) .....	158
S .....	158
Safety Climbing Fixtures .....	158
Salary Sacrifice Scheme.....	159



Schedule 23 FA2003.....	159
Scheduling and Call Centre (costs only) .....	159
Scheme Identifier .....	159
Scottish Environment Protection Agency (SEPA) .....	159
Secondary Network .....	159
Secondary Reinforcement .....	159
Second Tier Funding.....	159
Second Tier Funding Mechanism .....	159
Section 22 Connections .....	160
Self-Insured Risks.....	160
Service Alterations (SM) .....	160
Service Inspection (Costs only) (SM).....	160
Servitudes .....	160
Severe Weather Exceptional Events – see Exceptional Events.....	160
SF6 .....	160
SF6 Bank.....	160
SF6 Emitted .....	160
SF6 Emitted Mitigation Schemes .....	161
Shared Connection Capex for DG .....	161
Shetland: Competitive Process Costs (CPC).....	161
Shetland: Contingency Costs (CC) .....	161
Shetland: Fixed Energy Costs Allowance .....	162
Shetland: LPS Capital & Operating Costs (LPSC) .....	162
Shetland: NINES Ongoing Costs (NINES) .....	162
Shetland: Third Party Contracts (TPC) .....	162
Shetland Variable Energy Costs .....	163
Short Interruption.....	163
Single Circuit.....	163
Site Security .....	163
Small CHP (>=1MW, <5MW).....	163
Small Tools, Equipment, Plant and Machinery (Non-Operational) (STEPM).....	163
Smart Meter Communication Licensee Costs.....	164
Smart Meter Information Technology Costs .....	164
Smart Metering DCC Non Pass through costs.....	164
Smart Meter Installations Carried Out.....	165
Smart Meter Interventions – Extra scheduling and Call centre .....	165
Smart Meter Interventions – Onsite/Physical Activities.....	165
Smart Meter Interventions – On-site/Physical Activities - Trued Up .....	165
Smart Meter Interventions – Prior year restatement - Onsite/Physical Activities .....	165
Smart Meter Interventions – Smart Meter Registration .....	166
Smart Meter Interventions – Volume Bands – 1 to 4 .....	166
Smart Meters .....	166
Smart Meter Volume Calculations for Tapering Factor .....	166
Sole Use Expenditure on DG Connection Projects .....	166
Sole Use Expenditure on Metered Connection Projects .....	166
Sole Use Expenditure on Unmetered Connection Projects .....	166
Span .....	166
Span Length Average .....	167
Spans Affected By Trees .....	167
Spans Cut .....	167
Spans Inspected (Tree Cutting) .....	167
Spans Not Affected By Trees .....	168

Specified Lines .....	168
Stakeholder Pension & Personal Accounts .....	168
Standards ('the standards' – for connections).....	168
Stand alone ETR 132 .....	168
Standard Deviation of Lives.....	168
Stores .....	169
Strategic Business Plan Development and Implementation - see Engineering Management & Clerical Support .....	169
Strategic Spares .....	169
Street Works .....	169
Street Works - Congestion Charges .....	170
Street Works – Cost Type .....	170
Street Works – Existing Lane Rental Scheme.....	170
Street Works - Existing Permit Scheme.....	170
Street Works - Income from Connectee .....	171
Street Works - Investigatory Inspections and Penalties.....	171
Street Works - Lane Rentals.....	171
Street Works – New Lane Rental Scheme.....	171
Street Works - New Permit Scheme.....	171
Street Works - Notices.....	171
Street Works - Notice Penalties.....	171
Street Works - Overstay Fines .....	172
Street Works - Penalties Recovered from Contractors .....	172
Street Works - Permit.....	172
Street Works - Permit and Lane Rental Administration Costs .....	172
Street Works - Permit and Lane Rental Set-Up Costs .....	172
Street Works - Permit Condition Costs .....	172
Street Works - Permit Penalties .....	172
Street Works - Sample Inspections .....	173
Street Works – Street Works Admin .....	173
STEPM – See Small Tools, Equipment, Plant and Machinery (Non-Operational) .	173
Substation .....	173
Substation Costs.....	173
Substation Electricity .....	173
Substation Electricity Costs .....	173
Substation Fire Protection .....	173
Substation Indoor .....	174
Substation - Inspections .....	174
Substation Outdoor .....	174
Substation Reinforcement .....	174
Substation RTU, Marshalling Kiosk and Receivers.....	174
Supply Restoration By Onsite Switching Only.....	175
Support .....	175
Supranational .....	175
Surround .....	175
Switchboards/Substation Busbars .....	175
Switched Capacitors .....	175
Switchgear.....	176
Switching Points with Remote Control/Automation Facility.....	176
System Mapping .....	176
T.....	177
Tariff Group .....	177

Tax Clawback Calculation .....	177
tCO <sub>2</sub> e.....	177
TCPs new - licensee requirement .....	177
TCPs reinforced - licensee requirement .....	177
Technical Losses .....	177
Temporary Connection.....	178
Temporary Disconnection.....	178
Temporary Supply Arrangement .....	178
Third Party Cable Damage.....	178
Tidal Stream & Wave Power .....	178
Tier 1 Network Output Measure .....	178
Tier 2 Network Output Measure .....	178
Tier 3 Network Output Measure .....	178
TMA – Traffic Management Act 2004 .....	178
Top-up, Standby and Enhanced System Security - see DRS4. Top-up, Standby, and Enhanced System Security.....	178
Total Costs Incurred in Respect of Relevant Theft of Electricity .....	179
Total Number of Customers.....	179
Total Number of Disconnected Customers .....	179
Total Number of New Customers.....	179
Totex .....	179
Totex Incentive Mechanism (TIM) .....	179
Traffic Lights .....	180
Transformer .....	180
Transmission Connection Point (TCP).....	180
Transmission Connection Point Charges .....	180
Tree Cutting .....	180
Tree Cutting Cycle .....	181
Tree Cutting Policy .....	181
Tree Cutting: ENATS 43-8.....	181
Tree Cutting: ETR 132 .....	181
Triennial Valuation (pensions) .....	181
Troublecall .....	182
Troublecall Occurrences .....	182
Type 1 Refurbishment .....	182
Type 2 Refurbishment .....	183
U .....	183
UG Cables (CONSAC) .....	183
UG Cable (Oil & Gas) - Decommissioned .....	183
UG Cables Installed During Year (km) .....	183
Underground Cables.....	183
Underground Cables - Inspections.....	183
Underground Cable and Services Other - Inspections .....	183
Underground Services .....	184
Undergrounding.....	184
Undergrounding for Visual Amenity .....	184
Undrawn Facilities .....	184
Units Consumed .....	184
Units Entering System .....	184
Units Exiting System .....	184
Unmetered Connection Category.....	184
Unmetered Connection Work .....	184

Unmetered Services Included in the Quote .....	185
Unmetered Standards.....	185
Unmitigated Flooding Risk at 31 March 2015 at Forecast Level of Expenditure ..	185
Unplanned Incident .....	185
Unregulated Margin – see Margin .....	186
Unregulated Margin Period .....	186
Upgrading Connection Projects .....	187
Use of System (UoS) Charges.....	187
Use of System Bad Debts.....	187
Use of System Capex for DG .....	187
V .....	187
Variant Costs.....	187
Vehicles and Transport (Non-Operational).....	187
Vehicles and Transport (CAI).....	188
Vertical Clearance .....	189
Visual Amenity Allowance.....	189
Visual Amenity Expenditure.....	189
Visual Amenity Inside Designated Areas .....	189
Visual Amenity Outside Designated Areas .....	189
Visual Amenity Projects .....	189
W .....	189
Waste Incineration (not CHP) .....	189
Wayleaves .....	189
Wayleaves and Easements/Servitudes Admin Costs.....	190
Wayleaves (inc. Easements/Servitudes).....	190
Wayleaves Payments.....	190
Works required by an alteration of premises – see DRS3.Works Required by an Alteration of Premises.....	190
Worst Served Customers (WSC) .....	191
WSC - Calculated Number of Customers Interrupted in Reference Period .....	191
WSC - Calculated Number of Customers Interrupted Post Scheme Completion..	191
WSC - Circuit Reference Number .....	191
WSC - Feeder Name/Ref .....	191
WSC - Improvement Qualifies for Revenue Recovery.....	191
WSC - Number of Customers Expected to Benefit.....	192
WSC – Number of Higher Voltage Customers Interrupted in the WSC Reference Period.....	192
WSC - Number of Higher Voltage Customers Interrupted Post Scheme Completion .....	192
WSC - Number of HV+ Incidents Post Scheme Completion .....	192
WSC – Number of HV+ Incidents Within the Reference Period .....	192
WSC - Number of Worst Served Customers on Feeder .....	192
WSC - Number of Worst Served Customers on Substation.....	193
WSC - Performance Improvement Target from CRC 3H.....	193
WSC - Primary Name.....	193
WSC - Schemes .....	193
WSC - Scheme ID (Project Number).....	193
WSC - Secondary Substation (name)/Customer Details .....	193
WSC - Secondary Substation Ref/Customer Ref .....	193
WSC - Start of reference Period .....	193
WSC - Type of Scheme (Brief Description of Work Done) .....	194
WSC - Year Project Completed.....	194

WSC - % Improvement Scheme (Post Scheme Actual vs Reference Period).....	194
X .....	194
Y.....	194
Z .....	194
Zero Margin Period.....	194
<b>3. Numerical definitions .....</b>	<b>195</b>
100% 'revenue pool' expenditure.....	195
4% Regulated Margin Period .....	195
6.6/11kV CB (GM) Primary.....	195
6.6/11kV CB (GM) Secondary .....	195
6.6/11kV CB (PM) .....	195
6.6/11kV OHL (BLX or similar Conductor) .....	195
6.6/11kV OHL (Conventional Conductor).....	196
6.6/11kV Poles .....	196
6.6/11kV RMU .....	196
6.6/11kV Switch (GM) .....	196
6.6/11kV Switch (PM).....	196
6.6/11kV Switchgear - Other (PM) .....	196
6.6/11kV Transformer (GM) .....	196
6.6/11kV Transformer (PM).....	197
6.6/11kV UG Cable .....	197
6.6/11kV X-type RMU.....	197
20kV CB (GM) Primary.....	197
20kV CB (GM) Secondary.....	197
20kV CB (PM) .....	197
20kV Overhead Line Conductor – Open Wire Construction.....	197
20kV OHL (BLX or similar Conductor) .....	197
20kV Poles .....	198
20kV RMU .....	198
20kV Switch (GM) .....	198
20kV Switch (PM) .....	198
20kV Switchgear - Other (PM) .....	198
20kV Transformer (GM) .....	198
20kV Transformer (PM) .....	198
20kV UG Cable .....	198
33kV CB (Air Insulated Busbars) (ID) (GM) .....	199
33kV CB (Air Insulated Busbars) (OD) (GM) .....	199
33kV CB (Gas Insulated Busbars) (ID) (GM).....	199
33kV CB (Gas Insulated Busbars) (ID) Single Busbar (GM) .....	199
33kV CB (Gas Insulated Busbars) (ID) Double Busbar (GM) .....	199
33kV CB (Gas Insulated Busbars) (OD) (GM).....	199
33kV CB (Gas Insulated Busbars) (OD) Single Busbar (GM) .....	200
33kV CB (Gas Insulated Busbars) (OD) Double Busbar (GM) .....	200
33kV Fittings .....	200
33kV OHL (Pole Line) Conductor .....	200
33kV OHL (Tower Line) Conductor .....	200
33kV Pole .....	200
33kV RMU .....	201
33kV Switch (GM) .....	201
33kV Switch (PM) .....	201
33kV Switchgear - Other.....	201
33kV Tower.....	201

33kV Transformer (GM) .....	201
33kV Transformer (PM) .....	201
33kV UG Cable (Gas) .....	202
33kV UG Cable (Non Pressurised) .....	202
33kV UG Cable (Oil) .....	202
66kV CB (Air Insulated Busbars) (ID) (GM) .....	202
66kV CB (Air Insulated Busbars) (OD) (GM) .....	202
66kV CB (Gas Insulated Busbars) (ID) (GM).....	202
66kV CB (Gas Insulated Busbars) (OD) (GM).....	202
66kV Fittings .....	202
66kV OHL (Tower Line) Conductor .....	203
66kV Pole .....	203
66kV Switchgear - Other.....	203
66kV Tower.....	203
66kV Transformer .....	203
66kV UG Cable (Gas) .....	203
66kV UG Cable (Non Pressurised) .....	203
66kV UG Cable (Oil) .....	204
132kV Systems.....	204
132kV as Highest Voltage Worked On .....	204
132kV CB (Air Insulated Busbars) (ID) .....	204
132kV CB (Air Insulated Busbars) (OD) .....	204
132kV CB (Gas Insulated Busbars) (ID).....	204
132kV CB (Gas Insulated Busbars) (OD).....	204
132kV Fittings .....	205
132kV OHL (Pole Line) Conductor .....	205
132kV OHL (Tower Line) Conductor.....	205
132kV Pole.....	205
132kV Sub Cable .....	205
132kV Switchgear - Other.....	205
132kV Tower .....	205
132kV Transformer .....	206
132kV UG Cable (Gas).....	206
132kV UG Cable (Non Pressurised).....	206
132kV UG Cable (Oil) .....	206

**4. Refurbishment and Repairs & Maintenance Task Allocation Tables**  
**..... 207**

**5. Asset Replacement Scope of Works ..... 250**

LV main (OHL) conductor.....	250
LV service (OHL).....	250
LV Poles.....	251
LV Main (UG Plastic).....	252
Rising and Lateral Mains .....	253
LV service (UG) .....	253
LV service associated with RLM.....	254
LV circuit breaker.....	254
LV Pillar (ID) .....	255
LV Pillar (OD) .....	256
LV board (WM) .....	256
Cut Out (Metered).....	257
LV board (X-type network) (WM) .....	257

6.6/11kV OHL (Conventional Conductor).....	258
6.6/11kV OHL (BLX or similar Conductor) .....	259
20kV OHL (Conventional Conductor) .....	259
20kV OHL (BLX or similar Conductor) .....	260
6.6/11kV Poles .....	260
20kV Poles .....	261
6.6/11kV UG cable .....	262
20kV UG cable.....	262
HV Sub cables .....	263
6.6/11kV CB (PM) .....	263
6.6/11kV CB (GM) Primary.....	264
6.6/11kV CB (GM) Secondary.....	265
6.6/11kV Switch (PM).....	266
6.6/11kV Switchgear - Other (PM) .....	266
6.6/11kV Switch (GM) .....	267
6.6/11kV RMU .....	268
6.6/11kV X-type RMU.....	268
20kV CB (PM).....	269
20kV CB (GM) Primary.....	270
20kV CB (GM) Secondary.....	271
20kV Switch (PM) .....	272
20kV Switchgear - Other (PM) .....	272
20kV Switch (GM).....	273
20kV RMU .....	273
6.6/11kV Transformer (PM).....	274
6.6/11kV Transformer (GM) .....	275
20kV Transformer (PM) .....	276
20kV Transformer (GM).....	276
Batteries at GM HV Substations .....	277
33kV OHL (Pole Line) conductor.....	277
33kV Pole .....	278
66kV OHL (Pole Line) Conductor .....	279
66kV Pole .....	279
33kV OHL (Tower Line) conductor .....	280
33kV Tower.....	281
33kV fittings.....	281
66kV OHL (Tower Line) Conductor .....	282
66kV Tower.....	282
66kV Fittings .....	283
33kV UG cable (Non Pressurised).....	283
66kV UG Cable (Non Pressurised) .....	284
EHV Sub Cable .....	285
33kV CB (Air Insulated Busbars) (ID) (GM) .....	285
33kV CB (Air Insulated Busbars) (OD) (GM) .....	286
33kV CB (Gas Insulated Busbars) (ID) (GM).....	287
33kV CB (Gas Insulated Busbars) (OD) (GM).....	288
33kV Switch (GM).....	289
33kV Switchgear - Other.....	289
33kV Switch (PM) .....	290
33kV RMU .....	291
66kV CB (Air Insulated Busbars) (ID) (GM) .....	292
66kV CB (Air Insulated Busbars) (OD) (GM).....	293

66kV CB (Gas Insulated Busbars) (ID) (GM).....	294
66kV CB (Gas Insulated Busbars) (OD) (GM).....	294
66kV Switchgear - Other.....	295
33kV Transformer (PM) .....	296
33kV Transformer (GM) .....	297
66kV Transformer .....	298
Batteries at 33kV Substations.....	299
Batteries at 66kV Substations.....	300
132kV OHL (Pole Line) Conductor .....	300
132kV Pole.....	301
132kV OHL (Tower Line) Conductor.....	301
132kV Tower .....	302
132kV Fittings .....	303
132kV UG Cable (Non Pressurised).....	303
132kV Sub cable.....	304
132kV CB (Air Insulated Busbars) (ID) .....	304
132kV CB (Air Insulated Busbars) (OD) .....	305
132kV CB (Gas Insulated Busbars) (ID).....	306
132kV CB (Gas Insulated Busbars) (OD).....	307
132kV Switchgear - Other .....	308
132kV Transformer .....	309
Batteries at 132kV Substations .....	310
Pilot Wire Overhead .....	311
Pilot Wire Underground.....	311



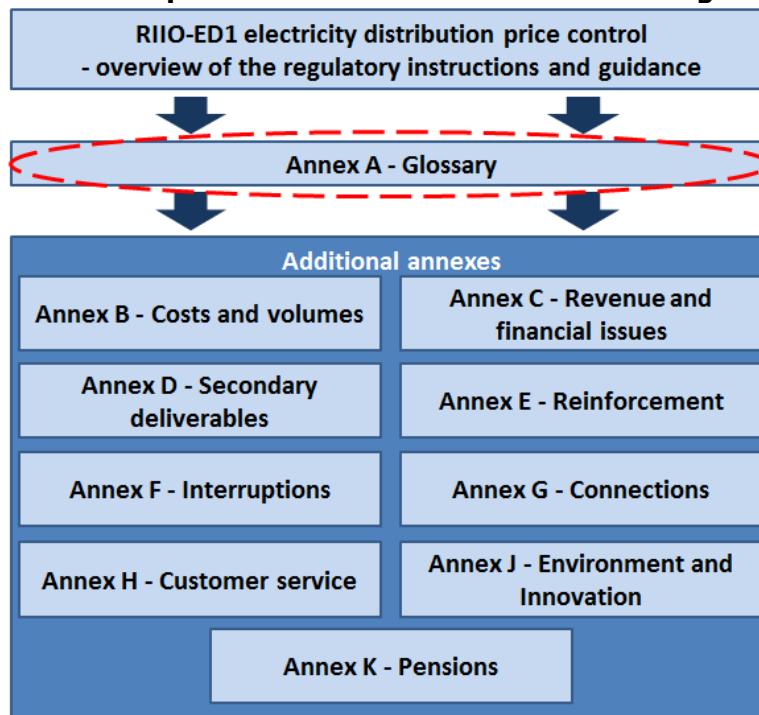
# 1. Introduction

## Scope of this document

1.1. This document is part of the regulatory instructions and guidance (RIGs) for RIIO-ED1. The term RIGs refers to a collection of documents - our instructions and guidance, and the reporting packs and commentaries the electricity distribution network operators (DNOs) have to fill out.

1.2. Figure 1.1 shows all the instructions and guidance documents for the RIIO-ED1 RIGs. This document, circled in Figure 1.1, is one of a series of annexes and contains descriptions of terms used in the RIGs. It should therefore be read in conjunction with the relevant annex and reporting pack.

**Figure 1.1: Map of the RIIO-ED1 instructions and guidance**



## 2. List of definitions

---

### A

#### **Abortive Call (SM)**

Incidences where a DNO is called out to conduct work as part of the Smart Meter roll-out and the customer is not present when the engineer arrives.

#### **Acceptance Date**

Refers to:

- a Customer's acceptance of a Quotation within the requisite timescale specified by the Electricity Distributor in that Quotation, and
- payment of any amount due to be paid to the Electricity Distributor in accordance with the accepted Quotation on acceptance of the quotation, and
- payment of any reasonable security required by the Electricity Distributor under section 20(1) of the Electricity Act 1989, and
- written acceptance of any additional terms of connection proposed by the Electricity Distributor under section 21 of the Electricity Act 1989.

#### **Accounting Standards**

The term encompasses Financial Reporting Standards ("FRS") 100, 101, 102 and 103 (known as the new UK GAAP) effective from 1 January 2015 and International Financial Reporting Standards and International Accounting Standards (together "IAS") and the International Financial Reporting Interpretations Committee ("IFRIC") interpretations.

#### **Accruals and Prepayments (non ordinary level of business)**

For items that are not incurred in the ordinary course of business and are atypical costs these should be recorded on a cash basis. Items in the ordinary course of business would be recorded as normal trade accruals and prepayments. These would include claim cost provisions and settlements; and holiday pay provisions.

#### **Active Network Management - Dynamic Network Reconfiguration**

As featured in the transform model developed through the smart grids forum, the pro-active movement of network split (or open) points to align with the null loading points within the network in real-time.

#### **Activity Volumes - Inspections**

A measure of the amount of inspection work undertaken by the DNO on its assets. This can, for example, include the number of assets inspected or the number of

surveys undertaken. The total recorded should include multiple inspections of the same asset or site if these have been undertaken.

### **Agency Staff**

Persons who are not under a direct contract of employment with the licensee or an affiliate of the licensee but are hired through a third party or employment agency.

### **Allowed Related Party Margin**

If the external turnover represents more than 75% of total revenue then the margin will be allowed.

### **All Voltages**

For distribution activities, means the voltages of LV, HV, EHV and 132kV.

### **Alternatives**

Any non-traditional asset with potential economic value that would not be found in a standard investment portfolio.

### **Anti Theft Security Enhancements**

Security works undertaken at DNO assets to deter future incidences of metal theft.

### **Applicant**

“Applicant” takes its definition from the Electricity Act 1989. The terms “applicant” and “Customer” are used interchangeably in relation to Connections RIGs.

### **Application Received Date**

The date the Customer indicates that they require a new connection (where this is submitted to the email account, postal address, telephone number, online or any other route published by the DNO for the purposes of receiving requests for connection) and provide information on:

- contact details
- work site location including approximate supply point location(s) (up to four locations)
- number of Domestic Premises or the total required load/capacity to be connected for commercial Premises.

### **Areas of Outstanding Natural Beauty (AONB)**

Has the meaning given to it in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

## **Area of Public Order Concern**

An area with a high risk of crime to which a significant contributory factor may be the lack of street lighting.

## **Asbestos Management – Containment or Removal**

Where work has been carried out at a substation site to either remove asbestos or contain the existing asbestos by encapsulation or treatment.

## **Asbestos Management – Meter Position Containment**

Work to contain or remove DNO cut outs and meter boards by encapsulation or treatment where the meter board has been found to contain asbestos (eg syndanio type).

EXCLUDES:

- any works associated with the roll-out of Smart Meters (which should be included in Asbestos Meter Board Replacement (SM)).

## **Asbestos Management - Meter Position Replacement**

Work to replace DNO cut outs and meter boards where the meter board has been found to contain asbestos (eg syndanio type).

EXCLUDES:

- any works associated with the roll-out of Smart Meters (which should be included in Asbestos Meter Board Replacement (SM)).

## **Asbestos Management – Surveys and Signage**

Where minor work has been carried out at a substation site for management of asbestos. This includes legal risk assessments of ACMs (Asbestos containing materials) and safety notices on site.

## **Asbestos Meter Board Replacement (SM)**

Replacement of asbestos meter boards undertaken in order to enable Smart Meter roll-out.

Includes costs of any cut out replacement undertaken at same time as asbestos meter board replacement. Excludes routine replacement of asbestos meter boards recorded in Legal and Safety.

## **Asset Register**

The group of worksheets, within the Costs and Volumes Reporting Pack, which shows the total volume of network assets. The annual additions and disposals of network assets under various work drivers are also recorded.

## Asset Register - Other Movements

The total asset additions and disposals associated with all activities excluding Connection Projects; DPCR4, Connection Projects, General Reinforcement and Asset Replacement (of prime assets).

Asset additions and disposals associated with the following activities should be reported as Other Asset Register movements:

- Quality of Service
- High Value Projects
- Severe Weather 1-in-20 Events
- Excluded Services (excluding demand connections)
- Diversion (non fully rechargeable)
- ESQCR
- Connection Projects; DG
- Consequential Asset Replacement
- Visual Amenity Inside Designated Areas
- Legal and Safety
- Inspection & Maintenance
- Troublecall
- Worst Served Customers
- Environmental Investment
- Dismantlement of redundant assets
- Assets adopted from ICPs.

## Asset Replacement

Asset replacement is an activity undertaken by a DNO to remove an existing asset(s) and install a new asset. The asset replacement activity includes:

- the installation of replacement assets
- the dismantlement of existing assets (at all voltage levels) where the dismantlement is undertaken as part of the asset replacement works.

The principal assets replaced as part of a replacement project are captured as prime assets. Where associated assets are also replaced to facilitate the prime asset replacement, these are counted as Consequential Assets.

The drivers for asset replacement are predominantly asset condition, obsolescence and safety, but also environmental factors may influence the activity. Where the sole driver of the replacement of an asset is an environmental factor, then the work carried out should be classified as environmental (eg the early replacement of fluid filled cables due to fluid leakage). Where the sole driver of the replacement is metal theft, the work should be classified as metal theft remedial work and not asset replacement.

The undertaking of civil works required to facilitate the asset replacement activity are treated as a standalone activity and are specifically excluded from asset replacement activity. The civil structures that support switchgear are considered to be part of the switchgear.

Asset replacement includes:

- Assets replaced following an assessment of their condition or performance. In particular includes replacement of assets which have faulted in the past

(on one or more occasions), been repaired and returned to operation and are subsequently replaced as a planned activity due to an assessment of their condition (not in response to a particular incident having occurred).

- The replacement of switchgear support structures when undertaken as part of works to replace the main plant asset.
- Assets replaced where the primary driver is to improve the ability of a network to withstand severe weather (eg resilience) such as:
  - Replacement of assets that are otherwise fit for purpose (ie in good condition or performing adequately) where the intention is to reduce the number of unplanned incidents that would occur as a consequence of a Severe Weather Event.
  - Incremental or extra costs associated with the replacement of existing assets that are planned for replacement on condition assessment or are performing poorly with assets which have a specification that exceeds the nearest MEA. (eg the nearest MEA for a conventional HV overhead line constructed to BS1320 is a conventional HV overhead line constructed to EATS 43-40. A specification that exceeds the nearest MEA would be an HV overhead line using BLX construction. The incremental cost of replacing a poorly-performing BS 1320 HV overhead line with an HV line constructed using BLX should be treated as resilience).
  - Assets procured as Strategic Spares (ie items of plant and equipment held specifically to cover emergencies), where the equipment is subject to long delivery lead times or it will not be available in the future and where it is of strategic importance to maintain supplies. Purchase of strategic spares in the year held as stock at the year end.

Note, on worksheets C1- Cost Matrix (year) in the Costs and Volumes Reporting Pack, the Asset Replacement column also includes costs related to Civil Works Driven By Asset Replacement.

### **Associated Works**

Any works required in order to provide a connection to the Electricity Distributor's distribution system, including any necessary reinforcement and diversionary works.

### **Atypicals - Early Retirement Deficiency Contributions (ERDCs)**

Early retirement programmes which have been financed by the employer making additional contributions to their pension scheme(s) to offset the associated increase in liabilities arising because of such programmes.

Cost of providing enhanced pension benefits granted under severance arrangements which have not been fully matched by increased contributions.

### **Atypicals - Atypicals Non Severe Weather in Totex in Price Control**

Those specific costs or events that are specified as Atypical under this definition, or where Ofgem provides an agreement for the costs to be reported as Atypicals in the RIGs, and they fall within Totex activities.

INCLUDES:

- Severance, relating to Totex activities
- Non-Severance related restructuring/mergers, relating to Totex activities
- Cash utilisation of non normal provisions or non normal accruals/prepayments utilisation relating to these activities.

EXCLUDES:

- Early Retirement Deficit Contributions (ERDCs) (costs to be reported in Atypicals Non Severe Weather excluded from Totex in Price control or Atypicals outside price control as appropriate)
- Rebranding
- The costs of any event defined as an exceptional event under IIS incentive scheme.

### **Atypicals - Atypicals Non Severe Weather excluded from Totex in Price Control**

Those specific costs or events that are specified as Atypical under this definition, or where Ofgem provides an agreement for the costs to be reported as Atypicals in the RIGs, and fall within the price control but outside Totex activities, for example under stand alone funding, Network Innovation funding or Low Carbon Technologies.

INCLUDES:

- Early Retirement Deficit Contributions (ERDCs), relating to in price control Totex activities
- Non-Severance related restructuring/mergers, relating to in price control non Totex activities
- Rebranding
- Cash utilisation of non normal provisions or non normal accruals/prepayments utilisation relating to these activities.

### **Atypicals - Atypicals Non Severe Weather outside Price Control**

Those specific costs or events that are specified as Atypical under this definition, or where Ofgem provides an agreement for the costs to be reported as Atypicals in the RIGs, and which are associated with non-distribution activities.

INCLUDES:

- Severance relating to Non Distribution activities
- Early Retirement Deficit Contributions (ERDCs) relating to Non Distribution activities
- Non-Severance related restructuring/mergers relating to Non Distribution activities.

EXCLUDES:

- Rebranding (costs to be reported in Atypicals Non Severe Weather excluded from Totex).

## **Atypicals - Non Severance Related Restructuring/Merger Costs**

The Atypical costs associated with the identification and implementation of restructuring, mergers and major improvement initiatives. Excludes the costs of severance payments and ERDCs.

### **Atypicals - Rebranding**

Costs relating to rebranding a company's assets or vehicles following a name or logo change.

### **Atypicals - Severance (exc ERDCs)**

Payments made to secure the exit from the business of an individual, excluding any Early Retirement Deficit Contributions (ERDCs).

### **Average Asset Lives**

The expected average age at replacement as experienced by the DNO for the asset population (this is the mean value of the asset age replacement profile of the particular asset).

### **Average Consequence of Asset Failure**

The mean Consequence of Failure value for each Health Index Asset Category.

### **Average Overall Consequence of Failure**

The mean average of the Overall Consequence of Failure for all assets within the same Health Index Asset Category.

### **Average Probability of Asset Failure**

The mean Probability of Failure for each Health Index Band 1 to 5 for each Health Index Asset Category.

## **B**

### **Balancing & Settlement Code (BSC)**

The current Balancing & Settlement Code as published on Elexon's website.

### **Baseline Scenario**

The activity that would have been undertaken had the management of distribution losses not been a consideration in the decision to undertake the activity.



## **Basic Meter Asset Provision**

The service of providing Legacy Metering Equipment, which includes the provision of Metering Equipment (which, at the licensee's own choice, may be Metering Equipment owned by itself or by any person other than the person making the application to the licensee under paragraph 34.4 of Standard Condition 34 (Requirement to offer terms for the provision of Legacy Metering Equipment) of the electricity distribution licence) in respect of premises at which such equipment had been installed on or before 31 March 2007 and is of the same functionality as was being provided by the licensee at 1 June 2003.

## **Batteries at GM HV Substations**

A re-chargeable battery, together with its associated charger, comprising a number of individual cells which is used to provide power to operate switchgear and protective equipment at a HV Ground Mounted Distribution Substation.

## **Batteries at 33kV Substations**

A re-chargeable battery, together with its associated charger, comprising a number of individual cells which is used to provide power to operate switchgear and protective equipment at a substation whose highest voltage of operation is 33kV.

## **Batteries at 66kV Substations**

A re-chargeable battery, together with its associated charger, comprising a number of individual cells which is used to provide power to operate switchgear and protective equipment at a substation whose highest voltage of operation is 66kV.

## **Batteries at 132kV Substations**

A re-chargeable battery, together with its associated charger, comprising a number of individual cells which is used to provide power to operate switchgear and protective equipment at a substation whose highest voltage of operation is 132kV.

## **Biomass & Energy Crops (not CHP)**

A category of DG. Electricity generation from burning biomass and energy crops, but not including combined heat and energy plants and not including generation from burning waste.

## **Black Start**

The series of actions necessary to restore electricity supplies to customers following a total or widespread partial shutdown of the GB Transmission System. Black Start requires distribution substations to be re-energised and reconnected to each other in a controlled way to re-establish a fully interconnected system.

Black Start expenditure is associated with initiatives to improve the resilience of both the distribution network assets and the key telecommunications systems, essential to

DNOs for the organisation and coordination of resources, to achieve Black Start Resilience.

### **Black Start Resilience (BSR)**

Resilience of both the distribution network assets and the key telecommunications systems, essential to DNOs for the organisation and coordination of resources, to a prolonged loss of supply in order to implement restoration plans under Black Start conditions. The required level of resilience shall meet the 72 hour recovery recommendations of the Electricity Task Group sub-committee of the Energy Emergency Executive Committee (E3C), as documented in ENA ER G91.

### **Black Start Resilience (BSR) - DC disconnection schemes**

Expenditure on the establishment of Black Start Resilience for protection/tripping battery supplies at substations using DC Load Disconnection Scheme solutions as described in ENA ER G91.

### **Black Start Resilience (BSR) - Generator**

For complex sites with multiple battery installations or significant standing demand, standby generation may be a cost effective option, supporting multiple substation and SCADA chargers. Standby generation would ideally have sufficient fuel for 72 hours operation (or a minimum of 48 hours with robust emergency refuelling arrangements), with remote monitoring functionality to indicate generator running, low fuel alarms etc.

The type of generator used (eg single or three phase) will be determined by the requirements of the substation it supports.

### **Black Start Resilience (BSR) - Land lines & Internal Telephony**

Expenditure on the establishment of Black Start Resilience for:

- telephone land lines to key strategic sites, such as Control Centres and Customer Call Centres, but excluding substation premises
- the DNOs existing internal telephony systems.

### **Black Start Resilience (BSR) - Mobile Voice Communications**

Expenditure on the establishment of Black Start Resilience of the DNOs existing mobile voice communication systems that would be utilised for the coordination of field staff during Black Start recovery. This excludes systems that are dependent on terrestrial cellular phone networks or public PSTN networks.

### **Black Start Resilience (BSR) - Protection Batteries**

Expenditure on protection batteries to ensure Black Start Resilience at substations used for power system protection or tripping of switchgear.

### **Black Start Resilience (BSR) - SCADA Batteries**

Expenditure on SCADA batteries to ensure Black Start Resilience at substations.

### **Black Start Resilience (BSR) - Securing of Existing Telecommunications Infrastructure**

The establishment of Black Start Resilience for the DNO's existing telecommunications systems that are necessary for the implementation of Black Start recovery.

### **Black Start Resilience (BSR) of SCADA Infrastructure**

Expenditure on the establishment of Black Start Resilience for the telecommunications infrastructure for SCADA system operations under Black Start conditions, excluding expenditure on the Black Start Resilience of SCADA battery supplies at substations.

### **Black Start Resilience (BSR) of Substation Batteries**

Establishment of Black Start Resilience of all battery supplies at a substation used for power system protection or tripping of switchgear and for SCADA purposes.

### **BT 21st Century (BT21CN)**

The roll-out of BT's next generation communications network which replaces Public Switched Telephone Network (PSTN) with a Digital Internet Protocol (IP). Whilst effectively changing the communications protocol used on the existing network assets, it also accelerates the replacement of copper communications circuits with non-metallic optical fibre.

### **BT21CN - Infrastructure Enabling**

The common telecommunications infrastructure, which although not directly removing reliance upon BT circuits, is required to facilitate replacement of BT circuits with alternative communications methods. This includes the costs of radio links, radio-mast structures, fibre optic cables, multiplex equipment and power supply systems.

### **BT21CN - Protection Communication Circuits - Replacement**

Communication circuits used within power system protection schemes where signalling and information exchange is required between protection equipment at separate remote sites to allow high speed clearance of faults. The activity 'Protection Communication Circuits - Replacement' refers to the replacement of BT protection communication circuits with alternative communication circuits and all necessary work associated with the installation of these alternatives. These alternatives include self-owned communication circuits and third party leased communication circuits.

The rental or lease costs associated with third party leased circuits are **not** to be reported under 'Protection Communication Circuits – Replacement', as they are reported under 'Protection Operational Measures'.

## **BT21CN - Protection Operational Measures**

Refers to:

- The operational activities associated with protection communication circuits installed as replacements to BT protection communication circuits. For example, rental costs associated with third party leased circuits.
- Measures carried out to remove an existing BT protection communication circuit by works to remove the requirement for a protection communication circuit from within a protection scheme.

## **Budget Estimate**

For the purpose of the Connections RIGs, a statement in writing, which may be produced by a desktop exercise not involving a site visit or system studies, and is an estimate of the likely costs of providing a connection at the time of enquiry, such that it may be used, for example, to determine an indication of costs or to inform the viability of a project. A Budget Estimate cannot be accepted and is not contractually binding.

## **Building**

A walled construction, from brick, block or concrete, which encapsulates the contents. This excludes GRP and steel enclosures.

## **Buildings - Electricity**

BCF emissions attributed to electricity usage in a DNO's buildings (excluding substation buildings).

## **Buildings Energy Usage**

A category of BCF reporting which captures carbon emissions attributed to electricity usage in a DNO's premises, including (but not limited to) all offices, workshops, stores, and substation buildings and any other structure where the DNO has authority to introduce and implement its operating policy. This reporting category also includes all building related fuel combustion (natural gas, diesel and other fuels).

## **Buildings - Other Fuels**

BCF emissions attributed to the use of all fuels except electricity in a DNO's buildings (excluding substation buildings).

## **Business Carbon Footprint (BCF)**

A measure of the total greenhouse gas emissions (in tonnes of CO2 equivalent) resulting from operations on which the DNO has full authority to introduce and implement its operating policy and contractors emissions.

## **Business Rates Payments**

Has the meaning given to it in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence. Also known as Cumulo or network rates.

## **Business Support Costs**

Collectively includes the activities, which are all separately defined in this Glossary, of:

- Core Business Support which comprises:
  - HR
  - Non-Operational Training
  - Finance & Regulation
  - CEO etc
- IT & Telecoms (Business Support)
- Property Management (Business Support).

## **Business Transport**

Business Transport is a category of BCF reporting arising from travel undertaken by staff travelling to locations that are other than their normal place of work or moving between sites for purposes such as meetings.

## **C**

### **Cable**

An underground conductor used to distribute electrical power, typically buried directly in the ground or installed in ducts or troughs. This excludes underereaves or mural wiring.

### **Cable Bridge**

An above-ground structure which carries power cables and/or pilot cables external to substation sites. Includes access, security, fire protection, purpose-built free-standing structures and structures attached to or part of third party assets, eg road and rail bridges.

### **Cable Bridge - Inspections**

The inspection of cable bridges (all voltages) including fixtures and fittings and associated plant, eg access arrangements and lighting etc. This includes safety & security and condition/structural surveys.

## Cable Overlays

An alternative expression for the replacement of an existing underground cable with a new underground cable. The activity includes the installation of the new underground cable, the full decommissioning of the existing underground cable, any necessary underground cable jointing and any associated network operations.

## Cable Pit

Work carried out on cable pits (below-ground structures) that allow access to the underground cable network where the primary driver is compliance with legal and safety requirements.

## Cable Tunnel

A tunnel (accessible by personnel) either underground or contained within an existing structure, containing power cables and/or pilot cables external to substation sites. Includes access, security, drainage, lighting, ventilation, fire protection, communications, and structural integrity.

## Cable Tunnel - Inspections

The inspection of cable tunnels (all voltages) including fixtures and fittings and associated plant, eg sump pumps, lighting etc. This includes safety and security and conditional/structural surveys.

## Call Centre

A Closely Associated Indirect activity included in the Core CAI worksheet.

### INCLUDES:

- answering power loss calls, tweets and website fault reporting notifications
- facilitating the reporting of distribution network faults and safety hazards and complaints about the quality and reliability of supply
- responding to queries, for example from retailers, customers, builders and contractors, on new connections, disconnections and reconnections
- responding to queries, for example from customers, builders and contractors
- responding to initial queries on metering
- metering call centre for suppliers, customers and agents
- primary recording of reports or queries and, where appropriate, reporting the information to the appropriate business operation
- handling and processing Guaranteed Standards of Performance Compensation Payments, Ex-Gratia Compensation Payments and ombudsman payments, but not other claims
- for any other customer complaints, handling the initial enquiry and passing on to the relevant department.

### EXCLUDES:

- IT and property costs associated with Call Centre

- handling, processing and administering insurance claims or making associated payments (see definition of Insurance)
- handling, processing and administering claims by the DNO against third parties insurance claims or making associated payments (see definition of Insurance)
- handling, processing and administering customer compensation claims or making associated payments other than those specified above (included under Insurance)
- the cost of any form of payments to customers.

## Capacity Released

The net impact of a reinforcement intervention (including alternatives to traditional reinforcement) on the peak demand in the year in which it is enacted.

## Capital Expenditure

This includes all costs associated with the following activities of groups of activities:

- Load Related Expenditure
- Non-load related capex (excluding non-op capex)
- High Value projects
- Standalone funding (RAV)
- Standalone funding (not RAV).

## Carbon Emission

The release of carbon into the atmosphere; when considering carbon emissions greenhouse gas emissions are often also being taken into account. Within the BCF GHG emissions, eg SF6 emissions, are calculated as equivalent carbon dioxide emissions.

## Catastrophic Failure

In relation to reporting on Link Boxes, means a fault/defect where energy is expelled. The incident may/could have resulted in an injury or fatality.

## Category 1 Exceptional Event

A Severe Weather Exceptional Event affecting eight times or more the normal daily rate (see Table 1 below), defined as mean, of EHV/HV Faults, up to 13 times this threshold, but affecting less than the Category 3 number of customers affected.

<b>Table 1</b>	Category 1 - Medium Severe Weather Exceptional Events
DNO	8 x mean HV faults and above
ENWL	55
NPgN	37
NPgY	40

<b>Table 1</b>	Category 1 - Medium Severe Weather Exceptional Events
WMID	63
EMID	64
SWALES	41
SWEST	60
LPN	14
SPN	54
EPN	91
SPD	76
SPM	68
SSEH	60
SSES	67

### Category 2 Exceptional Event

A Severe Weather Exceptional Event affecting thirteen times or more the normal daily rate of EHV/HV Faults (see Table 2 below), which affect less than the Category 3 number of customers affected threshold.

<b>Table 2</b>	Category 2 - Large Severe Weather Exceptional Events
DNO	13 x mean HV faults and above
ENWL	90
NPgN	60
NPgY	65
WMID	103
EMID	104
SWALES	67
SWEST	98
LPN	23
SPN	88
EPN	148
SPD	124
SPM	111
SSEH	97
SSES	109



### Category 3 Exceptional Event

A Severe Weather Exceptional Event in which weather related faults affect more than the threshold number of customers (see Table 3 below).

<b>Table 3</b>	Category 3 – Very large Severe Weather Exceptional Events
DNO	No. of Customers affected
ENWL	258,000
NPgN	219,000
NPgY	431,000
WMID	353,000
EMID	452,000
SWALES	213,000
SWEST	283,000
LPN	321,000
SPN	297,000
EPN	559,000
SPD	230,000
SPM	175,000
SSEH	133,000
SSES	402,000

### Cash Basis

All costs incurred and paid in cash or normally paid in cash, subject to short timing differences, as part of the ordinary level of business.

#### INCLUDES:

- all provisions, accruals and prepayments that are incurred as part of ordinary level of business activities, these include holiday pay provisions, normal trade accruals and prepayments, and which are expected to be paid within the entities standard terms of business
- exceptional events that do not meet the Severe Weather 1-in-20 event definition
- the cost of assets acquired under a finance lease excluding finance interest
- cash payments for the utilisation of a provision.

#### EXCLUDES:

- all provisions relating to atypical events
- the cost or transfer value of assets acquired from a Related Party which have been previously used in or by the distribution business
- all accruals and prepayments that relate to atypical events

- atypical cash costs.

## CEO etc

Combines the activities of:

- Non-executive & group directors labour & Board meeting costs
- Management charges from Affiliates of a general non-specific nature
- Corporate communications/Community Awareness
- Legal services
- Company secretarial services.

INCLUDES:

- **Non-executive & group directors labour costs & Board meeting costs**
  - the labour and any other costs of the CEO
  - the labour and any other costs of non-executive directors of the DNO
  - the charges for senior group management and group directors not directly attributable to a specific activity
  - the costs of hosting and attending board meetings
  - where a board member provides a service to the DNO under any of the other activities (eg Finance Director of DNO is also board member), the labour costs for that board member attending board meetings should be allocated here and the remainder of his or her labour should be allocated to his or her usual activity.
- **Management charges from Affiliates of a general non-specific nature**
  - management charges from a parent or related undertaking not for a specific purpose or defined activity.
- **Provision of corporate communications/Community Awareness**
  - the provision of shareholder communications, and any meetings of shareholders of the company, or of any controlling undertaking
  - corporate communications
  - brand advertising, including corporate image-making and notifying the public about telephone contact numbers
  - customer satisfaction and similar surveys
  - branding or rebranding of vehicles or buildings
  - PR and general promotional activities
  - sponsorship and donations.
- **Provision of legal services**
  - all legal services, whether in-house or external, excluding those relating to wayleaves/servitudes/easements.
- **Provision of company secretarial services.**
- **External entertaining.**

EXCLUDES:

- Insurance management (include under Insurance Total)
- Legal advice relating to wayleaves/servitudes/easements (include under Wayleaves and Easements/Servitudes Admin Costs).

## **Circuit Breaker**

Device capable of making, carrying and breaking currents under normal circuit operation and also making, carrying for a specified time and breaking, fault current. Also includes auto-reclosers. It does not include any circuit breakers that form part of an RMU.

## **Circuit Reinforcement**

Reinforcement relating to addressing a constraint on a circuit.

## **Civil Works**

Civil engineering work associated with DNO network assets, including buildings and site works at substations.

### **Civil Works At HV Indoor Substations**

Civils Works Driven By Condition Of Civil Items at an indoor substation where the voltage of operation is 6.6/11kV or 20kV.

### **Civil Works At HV Outdoor Substations**

Civils Works Driven By Condition Of Civil Items at an outdoor substation where the voltage of operation is 6.6/11kV or 20kV.

### **Civil Works At 33kV Substation**

Civils Works Driven By Condition Of Civil Items at a substation where the highest voltage of operation is 33kV.

### **Civil Works At 66kV Substation**

Civils Works Driven By Condition of Civil Items at a substation where the highest voltage of operation is 66kV.

### **Civil Works At 132kV Substation**

Civils Works Driven By Condition of Civil Items at a substation where the highest voltage of operation is 132kV.

### **Civil Works Driven By Asset Replacement**

Civil works undertaken to replace or modify existing civils items primarily required to facilitate, or enable, Asset Replacement of plant assets. Excludes works on civil structures in outdoor compounds, the costs of which are reported as part of Asset Replacement for the relevant plant asset being replaced.

The reporting of Civil Works Driven By Asset Replacement uses categorisations based upon the operating voltage of the replacement plant assets with which it is associated.

## **Civil Works Driven By Condition Of Civil Items**

Civil works undertaken to replace the civils item primarily due to the condition of the civil item itself.

The reporting of Civil Works Driven By Condition Of Civil Items uses categorisations based upon the voltage of the site where the works are undertaken, which shall be taken to be the highest voltage of operation of DNO network assets used at the site.

Activities considered as Civil Works Driven By Condition Of Civil Items, at Substations, are further identified in the Refurbishment and Repairs & Maintenance Task Allocation Tables in Chapter 4 of this document. These are identified under the entry for Substation (Civils).

### **Civils Works Associated With LV Asset Replacement (not at Substation)**

Civil Works Driven By Asset Replacement associated with LV plant asset types that are normally not located at a Substation, ie LV UGB and LV Pillar (OD not at a Substation) assets.

### **Civils Works Associated With HV or LV Asset Replacement (at secondary substation)**

Civil Works Driven By Asset Replacement associated with the installation of:

- LV plant asset types that are normally located at substations, ie all LV plant assets with the exception of LV UGB and LV Pillar (OD not at a Substation) assets, or
- HV plant assets other than 6.6/11kV CB (GM) Primary and 20kV CB (GM) Primary assets.

### **Civils Works Associated With HV Asset Replacement (at primary substation)**

Civil Works Driven By Asset Replacement associated with the installation of 6.6/11kV CB (GM) Primary and 20kV CB (GM) Primary assets.

### **Civils Works Associated With 33kV Asset Replacement**

Civil Works Driven By Asset Replacement associated with the installation of 33kV plant asset types.

### **Civils Works Associated With 66kV Asset Replacement**

Civil Works Driven By Asset Replacement associated with the installation of 66kV plant asset types.

### **Civils Works Associated With 132kV Asset Replacement**

Civil Works Driven By Asset Replacement associated with the installation of 132kV plant asset types.

## **Clerical Support – see Engineering Management and Clerical Support**

### **Clock Stopping**

The ability, in circumstances as described in the Interruptions RIGs (Annex F), to legitimately stop the count of the number of minutes that customers are off supply even though supply has not been restored.

### **Closely Associated Indirects**

Collectively includes the activities of:

- Core CAIs - Network Design and Engineering, Network Policy, Project Management, Engineering Management and Clerical Support, System Mapping, Stores, Call Centre and Control Centre
- Wayleaves
- Operational Training (CAI)
- Vehicles and Transport (CAI).

### **Common Connection Charging Document**

Comprises a DNO's Connection Charging Methodology, Connection Charging Statement and other information relevant to connecting Customers. The DNOs have each separately proposed to adopt a version of the Common Connection Charging Document.

### **Common Network Asset Indices Methodology**

Has the meaning given in Standard Condition 51 (Network Asset Indices Methodology) of the electricity distribution licence.

### **Communications for Switching and Monitoring**

IT and/or communications systems and equipment which are used exclusively in the real time management of network assets, but which do not form part of those network assets.

This includes communication solely for the purpose of switching (SCADA, antenna, pacnet etc) and communication equipment receivers at the control centre.

This excludes auxiliary cables that form part of a pilot cable or are integral with/supported from a main.

### **Complaint**

Has the meaning given to it in CRC 2C (Broad Measure of Customer Service Adjustment) of the electricity distribution licence.

## Completion Date

For the purposes of the Connections RIGs, the financial completion of a project and is the latter of the following:

- energisation of the cut-out
- all cost transactions completed
- all invoices have been raised.

## Condition Based Functional Failure

The inability of an asset to perform it's required function, as a consequence of the condition of asset.

This includes:

- failures disruptive to the supply of electricity
- catastrophic failures of equipment or subcomponents
- failure of an asset to operate (or be operated) when required
- failure of an asset to perform its rated duty.

## Conductor Replacement

Removal of existing conductors and installation of new conductors. The driver for this replacement may be due to poor asset condition, obsolescence or for safety reasons.

## Connected MPANs/points of connection provided as part of a Connection Project which has an element subject to the apportionment rules

MPANs/points of connection connected as part of a Connection Project which involves some element of the work funded via the apportionment rules

## Connected MPANs/points of connection provided as part of a Connection Project which has no element subject to the apportionment rules

MPANs/points of connection connected as part of a Connection Project which is fully funded by the connecting customer due to none of the work being funded via the apportionment rules.

## Connecting Party

The customer or representative/agent of the customer for which a Connection Project is being provided.

## Connection

For the purposes of the Connections RIGs, Connection refers to the provision or upgrading of individual MPANs, points of connection for independent networks, ICPs or unmetered connections to end customers. All provisions of new MPANs/points of

connection or upgrades of existing MPANs/points of connection must be referred to as connections within the annual reporting for connections. The provision of each of these Connections must be delivered via a Connection Project, which refers to each project covered by a connection quotation offered to a customer. It is the scope of work within a particular Connection Project that determines which Market Segment it is classified as belonging to.

### **Connection Project**

Where a quotation was offered to the connecting party after the required systems and processes were in place to provide the level of project specific detail required for a RIIO-ED1 project.

#### **Connection Project: All other LV (with only LV work)**

Connection Projects providing point(s) of connection at LV where the highest voltage of the assets involved in providing the point(s) of connection, and any associated works, is LV and the project does not qualify as a Single Service LV connection nor Small project demand connection (LV).

#### **Connection Project: DG Connection at LV Involving LV Assets Only**

A low-voltage DG connection where the highest voltage of the assets involved in providing such connection, and any associated works, is low voltage.

#### **Connection Project: DG Connection at Any Voltage that Where HV is the Highest Voltage Worked On**

A DG connection where the highest voltage involved in providing such connection, or associated works, is HV.

#### **Connection Project: DG Connection at Any Voltage that Where EHV is the Highest Voltage Worked On**

A DG connection where the highest voltage involved in providing such connection, or associated works, is EHV.

#### **Connection Project: DG Connection at Any Voltage that Where 132kV is the Highest Voltage Worked On**

A DG connection where the highest voltage involved in providing such connection, or associated works, is 132kV.

#### **Connection Project: EHV End Connection Involving Only EHV Work**

Connection Projects providing exit point(s) at EHV level where the only voltage of the assets involved in providing the exit point(s), and any associated works, is EHV.

### **Connection Project: EHV Metered DPCR4 Connection Projects**

Connection Projects; DPCR4 providing exit point(s) at EHV level. This category is identical to the “EHV” RRP reporting category used in DPCR4 reporting, but with 132kV connections stripped out.

### **Connection Project: HV End Connections Involving EHV Work**

Connection Projects providing exit point(s) at HV level where the highest voltage of the assets involved in providing the exit point(s)on, and any associated works, is extra high voltage.

### **Connection Project: HV End Connections Involving Only HV Work**

Connection Projects providing exit point(s) at HV level where the only voltage of the assets involved in providing the exit point(s), and any associated works, is high voltage.

### **Connection Project: HV Metered DPCR4 Connection Projects**

Connection Projects; DPCR4 providing exit point(s) at HV level. This category is identical to the “HV” RRP reporting category used in DPCR4 reporting.

### **Connection Project: LV End Connections Involving EHV Work**

Connection Projects providing exit point(s) at LV where the highest voltage of the assets involved in providing the exit point(s), and any associated works, is EHV.

### **Connection Project: LV End Connections Involving HV Work**

Connection Projects providing exit point(s) at LV where the highest voltage of the assets involved in providing the exit point(s), and any associated works, is HV.

### **Connection Project: LV Metered DPCR4 Connection Projects**

Connection Projects; DPCR4 providing exit point(s) at LV level. This category is identical to the “LV” RRP reporting used in DPCR4 reporting.

### **Connection Project: Single Service LV Connection**

Connection Projects providing exit point(s) at LV a one off domestic or commercial premise by means of a single phase service connection only.

### **Connection Project: Small Project Demand Connection (LV)**

Connection Projects providing a single three phase exit point or up to 4 single phase domestic exit points at LV where the highest voltage of works is at LV.



## **Connection Project: 132kV End Connections Involving Only 132kV Work**

Connection Projects providing exit point(s) at 132kV level where the only voltage of the assets involved in providing exit point at LV, and any associated works, is 132kV.

## **Connection Project: 132kV Metered DPCR4 Connection Projects**

Connection Projects; DPCR4 providing exit point(s) at 132kV level.

## **Connection Projects Completed Within Year**

Connection Projects that are financially closed within the reporting year.

## **Connection Projects - Direct Costs**

The direct costs associated with completed Connection Projects, ie not in-year costs, the full costs across all years of the projects that have financially closed within the year in question.

## **Connection Projects; DG**

Any Connection Project that connects a post 2005 DG and does not require an electrical supply, or where electrical supply is completely subject to the connection of the DG export.

## **Connection Projects; DG (DPCR4)**

Any "Connection Projects; DG" on which expenditure was incurred by the DNO prior to 1 April 2010.

## **Connection Projects; DPCR4**

Metered Connection Projects where a quotation was offered to the connecting party before the required systems and processes were in place to provide the level of project specific detail required for a DPCR5 project. "Before the required systems and processes are in place" refers to before the earlier of:

- the introduction of the new connection guaranteed standards on 1 October 2010, or
- the date on which the DNO started charging a Regulated Margin under their regulated margin notice.

## **Connection Projects Not Completed Within Year**

Any Connection Projects that are not financially closed within the reporting year.

## **Connection Projects Unmetered Connection (UMC)**

Connection Projects that do not involve any metered exit points, or ICP/IDNO POCs.

## **Connection/Customer Type**

For the purposes of the Connections RIGs, all connection jobs should be categorised into one of the Connections Categories that maps to a Market Segments as explained within the guidance.

## **Connection Work in Year**

Activity undertaken and costs incurred as part of a Connection Project within the reporting year.

## **Consac**

A type of cable with paper insulation and aluminium sheathing, used for distribution of electricity at low voltage.

## **Consequence of Failure**

The impact of Condition Based Functional Failure of an asset.

## **Consequential Assets**

Assets which are replaced along with, and to facilitate, the replacement of a prime asset. See also the definition for asset replacement.

## **Consumer Complaint**

A complaint, other than a network outage report, which is made against a regulated provider either (a) by a person in that person's capacity as a relevant consumer in relation to that regulated provider; or (b) by a person acting on behalf of such a relevant consumer.

## **Contaminated Land**

Land that is contaminated due to containing substances in or under the land that are actually or potentially hazardous to health or the environment.

## **Contaminated Land Clean Up**

The activity of cleaning up or other risk mitigation works associated with contaminated land including initial risk assessments.

## **Contestable**

Connections work that can be carried out by a non-affiliated third party with relevant accreditation.

## **Contingent Pension Asset Costs – see NABC – Contingent Pension Asset Costs**

## Contractors

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type. It represents costs incurred by contracting with organisations for the provision of services.

### INCLUDES:

- Professional Services - services provided on a consultancy basis, typically items such as legal services, audit fees, taxation services.
- Subcontractor - an organisation that performs part or all of the obligations of another's contract.

### EXCLUDES:

- charges for materials provided by the contractor where the cost of such materials has been separately identified by the contractor (include in Materials)
- ex principal Related Party (include in Related Party).

## Control Centre

The Control Centre activity relates to:

- Operational management and control of the network
- Outage planning and management.

### INCLUDES:

- Approval of planned incident proposals and switching schedules submitted by either DNO's own staff or related parties' staff.
- Liaison with transmission companies in order to agree and prepare planned incidents that affect the transmission/DNO interface.
- Real time control and monitoring including:
  - Instructing and controlling the execution of network switching, adjusting of protection relays, issuing of safety documentation associated with both planned and unplanned incidents
  - Instructing and undertaking the remote control operation of switchgear during both planned and unplanned incidents
  - Dressing the network control diagram in line with network switching etc, undertaken during both planned and unplanned incidents
  - Updating the network control diagram in respect of sustained changes to the network
  - Prioritising incidents, including managing resource in terms of the appropriate response to HV and EHV unplanned incidents, ensuring appropriate decisions are taken regarding network response and customer service drivers
  - Completion of fault reports and entry into fault recording systems (eg NAFIRS)
  - Updating IT systems with information from site.
- Dispatch, which relates to the activity of dispatching resources in response to Troublecall (both supply related and safety related incidents) and includes:
  - Interrogation of information systems to determine most appropriate resource to dispatch

- Dispatching resources
- Calling customers back with appropriate information regarding unplanned incident
- Updating messaging systems
- Completion of fault reports and entry into fault recording systems (eg NAFIRS) for LV incidents
- Maintaining an up-to-date, real time information log for unplanned incidents in Troublecall
- Creation of unplanned incidents in the Troublecall system and reporting of these incidents into the fault recording system (eg NAFIRS).
- Major incidents and emergency planning:
  - Relates to the liaison with National and Regional Emergency planning committees in respect of network operations, security of supply, civil contingency, business recovery, servicing local resilience forums and preparing for/participating in exercise scenarios both internal and external to the DNO.

**EXCLUDES:**

- raising and sending NRSWA notices in respect of unplanned incidents (include in Engineering Management and Clerical Support)
- completing, where appropriate environmental notifications (include in Engineering Management and Clerical Support)
- raising of service orders (include in Engineering Management & Clerical Support)
- processing Guaranteed Standard failures and associated payments (include in Call Centre (including compensation claims) activity)
- customer call taking at any time of day
- IT and property costs associated with the Control Centre.

## **Control Centre Hardware and Software**

IT systems and equipment which are used exclusively by the Control Centre for the real time management of network assets, but which does not form part of those network assets.

## **Controllable Opex**

This is PCFM Cost Type, which reports the costs of the following activities, with the exception of Pensions costs (which are reported in the 100% 'revenue pool' expenditure):

- Inspections
- Repair & Maintenance
- Dismantlement
- Remote Generation Opex
- Substation Electricity
- Smart Metering Roll-Out
- Core CAI
- Wayleaves
- Operational Training (CAI)
- Vehicles and Transport (CAI)

- Core BS
- IT & Telecoms (Business Support)
- Property Management (Business Support)
- Less: Income from Theft Recovery
- Less: DRS8. Value Added Services (net).<sup>1</sup>

## Conventional Solution

Any work, activity, asset or other solution other than those listed in the worksheet E6 - Innovative Solutions of the Environment and Innovation Reporting Pack.

## Conversion of Wayleaves to Easements

The activity involved in retaining assets in place through purchasing easements, land or agreeing other consents in response to the potential cancellation of terminable arrangements (for example in response to injurious affection claims) or upon expiry of termed agreements. Volumes should be reported once the new agreement is established.

## Core Business Support

Includes the following activities, which are all separately defined in this glossary:

- HR
- Non-Operational Training (see definition)
- Finance & Regulation (see definition)
- CEO etc (see definition).

## Core CAI

This combines the following activities, which are all separately defined in this glossary:

- Network Design and Engineering
- Network Policy
- Project Management
- Engineering Management and Clerical Support (EMCS)
- System Mapping
- Stores
- Call Centre
- Control Centre.

## Cost App Future Comer - Original Job id

The unique job reference must be entered for instances where a particular project involves a future comer funding a rebate to either the original customer or DNO (or both).

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<sup>1</sup> This does not apply to Western Power Distribution owned DNOs.

## **Cost App Future Comer - Rebate to DNO**

Part of the connection quotation that relates to a value assigned to cover a rebate to the DNO where the connection involves the utilisation of capacity of assets installed as part of a new Connection Project completed within the previous 5 years. The value entered must equate to a relevant proportion of the DUoS funded cost of the installation of the original asset under the apportionment rule.

## **Cost App Future Comer - Rebate to initial connectee**

Part of the connect charge that relates to a value assigned to cover a customer-to-customer rebate where the connection involves the utilisation of capacity of assets installed as part of a new Connection Project completed within the previous 5 years. The value entered must equate to a relevant proportion of the customer funded cost of the installation of the original asset under the apportionment rule.

## **Cost of scheme (£m)**

The cost of a scheme (project or programme) excluding any allocation of Indirect costs or Non-Operational Capex and gross of any income (including capital contributions).

## **Cost per unit £/MWh**

The cost in £ per MWh of electricity consumed at a DNO's substations.

## **Cost Recoveries**

The recovery of costs, relating to activities.

INCLUDES:

- Insurance claim receipts
- Government funding for training schemes (In Operational and Non-Operational Training)
- Cable damage recovery payment
- Recovery of design costs for quotations where the payee does not proceed with the connection.

EXCLUDES:

- Any income received primarily for other activities where a proportion of the income relates to the recovery of the costs of Indirect Activities or Non-Operational Capex (eg capital contributions relating to connections).

## **Cost Type**

The categorisation of the type of costs incurred by the DNOs consisting of the following which are defined in this glossary:

- Labour
- Pensions
- Contractors

- Materials
- Wayleaves (including easements/servitudes)
- Street Works – Cost Type
- Other (includes Rent and Subscriptions)
- Related Party Margins
- Cost recoveries
- Customer Contributions.

## **Critical Customers**

Connected customers that provide a vital service to the community, where the loss of supply to these sites is likely to lead to mass evacuation. For example:

- sewage works
- water treatment plant.

## **Critical National Infrastructure (CNI)**

Sites designated as Category 3 or above on DECC's criticality scale. The data reported in the worksheet C3 – Physical Security in the Costs and Volumes Reporting Pack should only relate to those sites classified as CNI where work as part of a physical security upgrade programme is required. Sites may be re-classified by DECC into different categories on their criticality scale during RIIO-ED1.

## **Criticality Index**

A framework for collating information on the Consequences of Failure of Distribution Assets and for tracking changes over time.

The Criticality Index is a comparative measure of Consequence of Failure. For a particular asset, the Criticality Index is provided by:

- the location of the asset within the Criticality Index Bands, and
- the Average Overall Consequence of Failure, for the relevant Health Index Asset Category

## **Criticality Index Bands**

Bandings used for the reporting of the Overall Consequence of Failure for individual assets, relative to the Average Overall Consequence of Failure for assets in the same Health Index Band.

## **CT600**

The annual corporation tax return form that an entity makes to HM Revenue & Customs.

## **Currency Overlay**

Where currency risk management is outsourced to a specialist firm.

## Currency Swaps

An agreement to exchange the principal and/or interest payments of a loan in one currency for equivalent aspects of an equal (in net present value) loan in another currency.

## Customer

Means (subject to the following paragraph), in relation to any energised or de-energised entry or exit point to the DNO's distribution system where metering equipment is used for the purpose of calculating charges for electricity consumption, the person who is providing or is deemed to be providing a supply of electricity through that entry point, or the person who is taking or is deemed to be taking a supply of electricity through that exit point. Customers should be identified from Metering Point Administration Numbers (MPANs)<sup>2</sup>, such that an individual customer is identified at each connection point.

For the purposes of customer service reporting, customer means any person who is supplied or requires to be supplied with electricity at any premises in Great Britain, but does not include any Authorised Electricity Operator in its capacity as such. In the case of unmetered connection this person is the Relevant Authority with responsibility for street lighting or street furniture.

The terms "applicant" and "customer" are used interchangeably in relation to reporting on Connections.

## Customer Contributions

The income, including normal accruals (ie matching income and cost), for an activity.

INCLUDES:

- Customer Contributions received by the DNO or related parties in respect of the provision of a new connection
- any pre-1 April 2005 Tariff Support Allowance which is held on the balance sheet as being potentially refundable contributions held at 31 March 2005 which are subsequently released should be reported as customer contributions under Connections or Reinforcement at the time of the release.

## Customers Interrupted (CIs)

The proportion of total customers whose supplies have been interrupted in a year. This is calculated by summing the number of customers with an interruption of supply that lasted for three minutes or longer (excluding re-interruptions to the

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<sup>2</sup>The Master Registration Agreement (MRA) is an agreement that sets out, amongst other things, the terms for metering point administration services and the requirements for the change of supplier process. Schedule 5 of the MRA sets out the form in which a supplier is obliged to print the supply number (attributed to a metering point) on a customer's bill. Within the industry the supply number is known as the metering point administration number (MPAN).



supply of customers previously interrupted during the same incident), multiplying by 100 and dividing by the total number of customers. It is calculated as:

$$\frac{\text{The sum of the number of customers interrupted for all incidents} \times 100}{\text{The total number of customers}}$$

## Customers Interrupted by Short Interruptions (SIs)

The proportion of total customers whose supplies have been interrupted by a Short Interruption in a year. This is calculated by summing the number of customers with an interruption of supply, where the initial interruption to supply is restored in less than three minutes, multiplying by 100 and dividing by the total number of customers. It is calculated as:

$$\frac{\text{The sum of the number of customers interrupted by short interruptions} \times 100}{\text{The total number of customers}}$$

## Customer Minutes Lost (CMLs)

A measure of the duration of interruptions to supply per year. It is the average customer minutes lost per customer per year, where an interruption of supply to customer(s) lasts for three minutes or longer. It is calculated as:

$$\frac{\text{The sum of the customer minutes lost for all restoration stages for all incidents}}{\text{The total number of customers}}$$

## Customers Re-interrupted (RIs)

The number of customers per year whose supplies have been re-interrupted per 100 customers per year. It is calculated as:

$$\frac{\text{The sum of the number of customers re – interrupted} \times 100}{\text{The total number of customers}}$$

## Cut Out

A cut out assembly is defined in BS 7657: 2010 as a combination of fuse-link(s), neutral terminal(s), earth terminal(s), combined neutral and earth terminal(s), ancillary terminal block(s), connecting units and anti-tamper facilities, as applicable, so as to provide facilities for terminating service cables and a means of protection, isolation, and earthing of electricity supplies to buildings. Outside of the RIGs cut outs are sometimes referred to as "service terminations".

### Cut Out (Metered)

A cut out associated with a metered LV service connection.

### Cut Out Changes (SM)

Cut out changes undertaken as part of Smart Meter roll-out following category A or category B referral by supplier or representative. Includes 'Tier 2' costs.

Excludes cut out changes associated with asbestos meter board replacements and routine cut out changes as reported in asset replacement.

## **D**

### **Damage Fault Rates**

The incidence (per unit) of faults (ie unplanned incident where it is necessary to effect the repair of equipment) for a specific category of Distribution Assets.

### **Damage Incident**

Any unplanned incident where it is necessary to affect the repair of equipment. For example, the changing of a damaged insulator is considered to be a repair.

### **Data Cleansing**

The activity of detecting and correcting missing or inaccurate records.

### **Data Communications**

Any costs of transferring video and other data between sites and the Alarm Receiving Centre.

### **Data Services (MPAS and data transfer)**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

### **Deadlock Letters**

A final response (by post or email) from the DNO to the customer in which the position of the DNO is different from that of the customer.

### **Debt - see Net Debt**

### **Debt Cap Disallowance**

Where the aggregate net debt of the relevant group company exceeds 75% of the worldwide gross debt of the group then the Worldwide Debt Cap is applicable. If the calculated net finance expense exceeds the tested expense amount (as per HMRC rules) then the excess is disallowed as a deduction for tax purposes.

### **Deferred Revenue Expenditure**

This refers to the deferred revenue expenditure tax pool which is a tax pool provided for under case law for assets which constitute a replacement (rather than an enhancement) of existing assets and which, prior to 1 April 2005, were treated as 100% tax deductible.

## **Defined Benefit Pension Scheme (DB)**

A pension scheme where the benefits accrue to members independently of the contributions payable and not directly related to the investment in the scheme. These are normally based on a set formula taking into account the final salary and accrual of service in the scheme. It is also known as a final salary pension scheme.

## **Defined Contribution Pension Scheme (DC)**

A pension scheme where the benefits that accrue to members are based on the level of cash contributions made to an individual account and the investment returns thereon. These are used to provide a cash amount to purchase an annuity on retirement.

## **Demand Connection**

A new or modified connection (excluding any modification comprising only an alteration as a result of an alteration to the position of the meter) the purpose of which is to enable the premises to receive a supply of electricity from an Electricity Distributor's distribution system.

## **Demand Driver**

One or more of the causes identified for increasing (or decreasing) demand on the network. Usually associated with new network connections, industry closures or increased load requests.

## **Demand Forecasting**

For the purposes of the IT and Telecoms Systems Overview worksheet of the Cost and Volumes Reporting Pack, are IT systems that assist with the activity undertaken to predict the future demand on an electricity network due to changing supply and demand metrics.

## **Demand Group**

An individual substation or group of interconnected substations for which the DNO is required to provide Load Index information.

## **Demand Side Management Payments**

Includes payments made to customers to manage or reduce their maximum demand on the network at certain times. See Expenditure on DSM to avoid general reinforcement.

## **De Minimis Business**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## Derogation

A derogation is either a complete or partial revocation of a DNO's licence requirement that can be granted by the Authority subject to such conditions and for such periods as the Authority may consider appropriate.

## Designated Areas

Areas in which Visual Amenity Projects may be undertaken, according to the relevant definitions in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

## DG – see Distributed Generation

## DG Network Unavailability (MWh)

The energy in MWh that could not be produced by Distributed Generation due to restrictions imposed by the Distribution Network.

## DG Voltage Level

The voltage level at the point of metering the DG, and is classified as LV, HV, EHV or 132kV.

## Direct Activities

Those activities which involve physical contact with system assets.

INCLUDES:

- Labour cost of staff whose work involves physical contact with system assets. This can include the element of labour costs associated with trench excavation staff, craftsmen, technicians, technical engineers, administration and support staff, network planners and designers where a portion of their time involves physical contact with system assets, however only that portion spent on direct activities may be included. It will include idle, sick, non-operational training and other downtime of staff, which cost should follow their normal time allocations.
- Operational engineers working on commissioning of assets, physically changing protection settings, issuing safety documentation or liaising with the control centre are considered direct activities.
- The cost of contractors being the total charges invoiced by external contractors for the primary purpose of performing direct activities.
- The cost of materials drawn from stores or purchased and delivered directly to site for use in performing direct activities. In addition, this includes the cost of the materials (stores issues) for refurbishing system assets.
- Servitude and easement payments to enable the direct activity to be performed. This does not include the cost of management or administration of these.

- Related Party Margins charged by a Related Party for work performed on direct activities. In addition, includes, for the purposes of flooding, site surveys and non site based costs.

### **Direct Expenditure**

Expenditure incurred undertaking Direct Activities.

### **Directly Attributable Costs**

Has the meaning given to it in CRC 5A (The Network Innovation Competition) of the electricity distribution licence.

### **Directly Remunerated Services**

Has the meaning given to it in CRC 1B (Interpretation of Part 4) of the electricity distribution licence.

### **Directly Remunerated Services (exc connections)**

Costs incurred in the directly remunerated services categories DRS2 to DRS9.

### **Disallowed Expenditure (LCN Fund)**

Has the meaning given to it in CRC 2J (Low Carbon Networks Fund) of the electricity distribution licence.

### **Disallowed Expenditure (NIC)**

Has the meaning given to it in CRC 5A (The Network Innovation Competition) of the electricity distribution licence.

### **Disallowed Related Party Margins**

The portion of the Related Party margins which will not be included in Totex for the year in accordance with the relevant price control settlement. For RIIO-ED1, if the external turnover represents less than 75% of total revenue then the margin will be disallowed.

### **Discretionary Funding**

Has the meaning given to it in CRC 2J (Low Carbon Networks Fund) of the electricity distribution licence.

### **Dismantlement**

The activity of de-energising, disconnecting and removing (where appropriate) network assets where the cost of dismantlement is not chargeable to a third party and no new assets are to be installed.

## **Distributed Generation (DG)**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## **Distribution Asset**

Any of the electric lines, cables, plant and equipment included within the licensee's distribution system.

## **Distribution Losses**

Has the meaning given in Standard Condition 1 of the electricity distribution licence.

## **Distribution Losses - Justified Costs**

The incremental component of the total activity cost that is justified by Distribution Losses benefits.

## **Distribution Losses Strategy**

Has the meaning given in Standard Condition 49 (Electricity Distribution Losses Management Obligation and Distribution Losses Strategy) of the electricity distribution licence.

## **Distribution Network Operator (DNO)**

Any Electricity Distributor in whose electricity distribution licence the requirements of Section B of the standard conditions of that licence have effect (whether in whole or in part).

## **Diversionsary Works**

The service consisting of the moving of any electric lines or electrical plant in order to facilitate the extension, redesign or redevelopment of any premises on which those things are located and/or to which they are connected. Diversionsary works are related to the provision of new connections, and not where the works are unrelated to new connections.

## **Diversions**

Diversions activity that is not fully recharged to any third party or agent, Diversions is a generic category that includes:

- Conversion of wayleaves to easements, easements and injurious affection;
- Diversions due to wayleave terminations, termination of a lease (s.25 Landlord & Tenant Act) or where a re-development clause exists within an existing easement or other consent documentation.
- Diversion for Highways (funded as detailed in NRSWA).

## **Diversions - Wayleave Terminations**

The raising or rerouting of a circuit and/or the relocation of plant following the termination of a wayleave or lease.

Volumes of diversions due to wayleave terminations etc should be reported once the diversion scheme is completed. A single diversion may require work to be undertaken upon different assets, possibly at different voltages. In these instances, the diversion should only be reported once, and where multiple voltages are involved, should be reported against the highest voltage of the works.

## **Diversions - Highways**

The raising or rerouting of a circuit or repositioning of plant associated with Street Works. The costs reported in worksheets CV5 - Diversions and CV6- Diversions for Rail Electrification in the Costs and Volumes Reporting Pack represent the DNO-funded proportion of the costs as defined under Street Works. The proportion that is charged to the highway authority (roads authority in Scotland) is reported in worksheet CV39 – Directly Remunerated Services in the Costs and Volumes Reporting Pack. Volumes of diversions for highways should be reported once the diversion scheme is completed. A single diversion may require work to be undertaken upon different assets, possibly at different voltages. In these instances, the diversion should only be reported once, and where multiple voltages are involved, should be reported against the highest voltage of the works.

## **Domestic Premises**

Premises at which a supply of electricity is taken wholly or mainly for domestic purposes.

## **DPCR4**

Distribution Price Control Review 4 - the price control regime imposed by the charge restriction conditions of DNO licences and applicable for the period from 1 April 2005 to 31 March 2010.

## **DPCR4 Connection Project - see Connection Projects; DPCR4**

## **DPCR5**

Distribution Price Control Review 5 - the price control regime imposed by the charge restriction conditions of DNO licences and applicable for the period from 1 April 2010 to 31 March 2015.

## **DRS1. Connection Services**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS2. Diversionary Works Under an Obligation**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS3. Works Required by an Alteration of Premises**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS4. Top-up, Standby, and Enhanced System Security**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS5. Revenue Protection Services**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS6. Metering Services**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS7. Smart Meter Roll-out Rechargeable Services**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS8. Value Added Services**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DRS9. Miscellaneous**

Has the meaning given to it in Appendix 1 of CRC 5C (Directly Remunerated Services) of the electricity distribution licence.

## **DSCP (Distribution Systems Connection Point)**

A connection point between two distribution systems that are the responsibility of different licensees, who are each, a DNO. In accordance with the BSC, a DSCP is a Systems Connection Point at which two distribution systems are connected.

## **Dual Quote**

A Connection Project quote to one customer that contain both a Contestable and Non-Contestable connections work.



## **DUoS - see Distribution Use of System**

## **E**

### **Earthing Upgrades**

The activity of upgrading the earthing installation at an existing substation:

- to mitigate against high earth potential rise (EPR) or step and touch potentials in excess of tolerable limits where identified as an issue with the existing earthing installation, and
- where the cost of the earthing upgrade is not chargeable to a third party.

This excludes sites where earthing has been replaced due to fault or theft.

### **Easements**

The activity of securing locations for distribution network assets through purchasing easements. An easement is the legal right for a DNO to retain assets in a location for a determined period of time or in perpetuity without risk of interference from the owner.

Volumes should be reported once the easement is established.

### **ECCR**

The Electricity (Connection Charges) Regulations 2002 (SI 2002/93) as amended from time to time.

### **ECDGS - Electricity Connections Distributed Generation Standards**

Standards of performance pertaining to electricity distributed generation connections services provided by Electricity Distributors.

### **ECGS - Electricity Connections Guaranteed Standards**

Standards of performance pertaining to electricity connections services provided by Electricity Distributors. Outlined in the Electricity (Connection Standards of Performance).

### **ED1 Final Determination**

Has the meaning given in Standard Condition 1 of the electricity distribution licence.

### **EHV (Extra High Voltage)**

Voltages equal to or greater than 22kV but less than 132kV.

## **EHV Systems**

Systems including all voltage levels equal to or greater than 22kV but less than 132kV.

The lower boundary of EHV Systems should be taken as the supply terminals of customers supplied at EHV, and in other situations as the load-side terminals of protection equipment connected to the secondary side (lower voltage) of EHV transformers. The upper boundary should in general be taken as the busbar side of lower voltage switchgear of transformers whose primary voltage is 132kV or above and whose secondary voltage is EHV. If no secondary switchgear exists, the upper boundary should be taken as the secondary-side terminals of the 132kV or above transformer: incidents on the system connected to the secondary voltage terminals of the transformer should be reported as EHV incidents and not as 132kV incidents.

## **EHV Sub Cable**

EHV cable which is placed below the surface of water and laid on or under the sea bed or the bed of a river or estuary whether or not designed for this purpose.

## **Elective Communication Services**

Payments for discretionary data service purchased through bilateral agreements with the Data Communications Company (DCC). These payments may extend beyond the Smart Meter roll-out period.

## **Electrical Energy Storage**

As featured in the transform model developed through the smart grids forum, the Electrical Energy Storage (EES) technologies deployed on a network to either deliver the peak demand, or absorb high levels of generation at key times of the day/year.

## **Electricity Distributor**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## **Electronic/Electric Vehicle Charging Point**

An installation which allows an electric vehicle to be charged from the distribution network.

## **Element of Connection that is Sole Use Funded**

The element of a connection that will only be used by the connecting party (at the time of completing the work) and is therefore fully funded by this party.

## **Element of Connection that is Subject to the Apportionment Rules - Customer Funded**

Where a Connection Project requires the reinforcement of existing assets or involves the installation of new assets that will not be used solely by the connecting party, the funding will be split between the new connectee and the wider customer base through DUoS funding. This funding is split using the apportionment rules as detailed in DNO connections charging methodologies. The portion funded by the connecting customer is referred to as the connectee funded element of connection subject to the apportionment rule.

## **Element of Connection that is Subject to the Apportionment Rules - DUoS Funded**

Where a Connection Project requires the reinforcement of existing assets or involves the installation of new assets that will not be used solely by the connecting party, the funding will be split between the new connectee and the wider customer base through DUoS funding. This funding is split using the apportionment rules as detailed in DNO connections charging methodologies.

The portion that is funded by the wider customer base through DUoS is referred to as the DUoS funded element of connection subject to apportionment rule.

## **Eligible NIA Expenditure**

Has the meaning given to it in CRC 2H (The Network Innovation Allowance) of the electricity distribution licence.

## **Eligible NIC Bid Preparation Costs**

Has the meaning given to it in CRC 2H (The Network Innovation Allowance) of the electricity distribution licence.

## **Eligible NIC Project**

As defined in the NIC Governance Document.

## **Embedded DC Networks**

As featured in the transform model developed through the smart grids forum, the application of point-to-point DC circuits to feed specific loads. A retrofit solution to existing circuits.

## **Emergency Fault Repair Response**

An emergency is a scenario where there is immediate danger to the public from the electricity network. This standard requires the Electricity Distributor to attend the site to remove immediate danger to the public.

## Energisation

The insertion of a fuse or operation of a switch that will allow an electrical current to flow from an Electricity Distributor's distribution system to the Customer's installation, or from the Customer's installation to that distribution system, when the action in question is required to be carried out by the Electricity Distributor and is subject to standard industry requirements.

## Energy Ombudsman Findings Against the Licensee

Has the meaning given to it in CRC 2C (Broad Measure of Customer Service Adjustment) of the electricity distribution licence.

## Engineering Management & Clerical Support (EMCS)

A Closely Associated Indirect activity included in the Core CAI worksheet.

This relates to the activities of engineering and clerical support staff (ie executive managers, engineering managers, work/resource planners and clerical staff, etc) managing or assisting employees undertaking direct activities.

INCLUDES:

### **Strategic Network Business Plan Development and Implementation**

- Development of strategic business plan for the overall distribution business
- Setting the operational and capital network investment priorities for the overall distribution business
- Establishing annual operational and capital plans to achieve strategic goals for the overall distribution business
- Managing the delivery organisational structure to achieve the long and short term company goals
- Agreeing overall resource requirements for the business (own employees, contractors, finances and outcome targets)
- Managing the overall allocation and distribution of delivery resources to achieve plans
- Managing key corporate policies and standards for service delivery;
- Leading the management team for service delivery
- Monitoring the achievement of plans
- Overseeing compliance monitoring to company technical and health & safety requirements
- Overseeing the management of teams with responsibility for service delivery.

### **Work Planning, Budgeting, Allocation and Control**

- Monitoring delivery of major works programme
- Monitoring delivery of overall works programme
- Monitoring fault activity
- Managing budgets for inspections and maintenance, faults and major works
- Setting and agreeing performance targets, monitoring actual performance;
- Reporting and analysis of Key Performance Indicators ("KPIs")
- Line management of staff undertaking direct activity work, including

- Standards of performance, disciplinary and sickness absence procedures
- Monitoring absence, back-to-work-interviews and welfare visits
- Establishing day to day work plans
- Managing the allocation tasks to achieve the delivery of operational and capital plans
- Ensuring work activity adheres to company technical and health & safety requirements.

### **Operational Performance Management**

- Health and Safety checks on work and personnel
- Compliance checks on staff and contractors
- Site safety inspections
- Providing safety advice to cable contractors and others (to help prevent damage)
- Investigation, report and corrective action following an accident or environmental incident
- Authorisation of team members for operational and non-operational duties
- Operational safety checks.

### **Health and Safety**

- Promoting and maintaining health and safety of employees, contractors, customers and the public, including:
  - Developing the company's overall health and safety policy
  - Establishing procedures to comply with best practice for health and safety
  - Maintenance of records to show compliance with Factory and Health and Safety at Work Acts
  - Providing advice on security matters both for property and personnel and provision of advice on fire prevention
  - Providing safety advice to persons working in proximity to network assets.

### **Street Works related costs**

- Street Works Admin
- Permit and Lane Rental Administration Costs
- Permit and Lane Rental Set-Up Costs
- Liaising with contractors and direct labour force to undertake remedial works following inspections (but not the cost of the remedial works)
- Updating the Street Gazetteer.

### **Clerical Support**

#### **The office based activities undertaken by Clerical Support staff includes:**

- Updating plant and overhead line support asset inventory databases following asset commissioning and decommissioning
- Updating plant and overhead line support asset condition data following inspection and maintenance
- Dealing with verbal and written enquires for new connections, street lighting or faults
- Programming of minor works
- Issuing of work instructions
- Preparation of quotations for minor works

- Sending quotations to customers
- Customer liaison
- Liaising with contractors
- Preparing plans, schematics, notices, materials schedules and work instructions
- Preparing shutdown notices
- Environmental notifications
- Processing of claims for third party damage to the DNO's assets
- Clerical support for staff undertaking street lighting, including answering verbal and written enquiries regarding street lighting faults, dealing with instructions from lighting authorities, liaising with contractors and lighting authorities and providing statistics to local authorities
- Data gathering and the provision of evidence to support claims against third parties for damage to DNO property.

#### **Identification and implementation of Network improvement initiatives**

- Redesign of business processes
- Customer service improvements
- Where staff are specifically engaged in change and improvement activities.

#### **EXCLUDES:**

- Any Employees managing Indirect Activities (eg logistics manager) (include under the relevant indirect activity heading)
- Development of high level plans that facilitate the economic development of the distribution network (classified as Network Design and Engineering)
- Specific planning and design necessary for individual projects (classified as Network Design and Engineering)
- Responding to NRSWA notices sent to the DNO by other parties (include under System Mapping)
- Maintenance of mobile generation plant (include under Vehicles and Transport (CAI))
- Any employees engaged in maintaining the financial asset register (include under Finance and Regulation)
- Idle, down and sick time of direct field staff (include with their normal direct time in the appropriate direct activity)
- Costs of operational staff attending operational training courses (include under Operational Training)
- Training courses and training centre costs for staff relating to working on system assets (include under Operational Training)
- Engineering and health and safety training courses for staff involved in direct activities (include under Operational Training)
- Engineering and health and safety training courses for staff involved in Indirect Activities (include under HR & Non-Operational Training)
- Apprentices undertaking classroom and on the job training (include under Operational Training)
- Time of non-operational staff attending non-operational training (include as labour costs under the relevant activity of that employee)
- Time of operational staff attending non-operational training (include as labour costs under the relevant activity of that employee)
- IT or property costs associated with Engineering Management & Clerical Support (include in IT&T and Property Management Indirect Activities)

- Updating of underground cable and overhead line asset databases (include under System Mapping)
- Purchase of equipment (include under Non-Operational Capex).

### **Engineering Recommendation G83/2 (and successor documents)**

The Engineering Recommendations are a series of documents that set out standards and guidance on technical requirements. G83/2 is the “Recommendations for the Connection of Type Tested Small-scale Embedded Generators (Up to 16 A per Phase) in Parallel with Low-Voltage Distribution Systems” document.

### **Engineering Recommendation G59/2 (and successor documents)**

The Engineering Recommendations are a series of documents that set out standards and guidance on technical requirements. G59/2 is the “Recommendations for the Connection of Generating Plant to the Distribution Systems of Licenced Distribution Network Operators” document.

### **Enhanced Automatic voltage Control (EAVC)**

As featured in the transform model developed through the smart grids forum, the introduction of additional automatic voltage control devices over and above those located at the grid and primary transformers. Together these new and existing voltage control devices will constitute an EAVC system.

### **Enhanced Physical Security (Capex)**

Any expenditure associated with upgrading physical security assets which is undertaken as part of the PSUP, at sites classified as CNI or centralised sites.

### **Environment Agency (EA)**

An Executive Non-departmental Public Body responsible to the Secretary of State for Environment, Food and Rural Affairs and an Assembly Sponsored Public Body responsible to the National Assembly in Wales concerned mainly with rivers, flooding, and pollution.

### **Environmental Caution - see Environmental Civil Sanction**

### **Environmental Civil Sanction**

An umbrella term relating to a range of civil sanctions in respect of environmental issues.

INCLUDES:

- Environmental Cautions
- Environmental Compliance Notices
- Environmental Enforcement Undertakings

- Environmental Fixed Monetary Penalties
- Environmental Prosecutions
- Environmental Reportable incidents
- Environmental Restoration Notices
- Environmental Stop Notices
- Environmental Variable Monetary Penalties
- Environmental Warnings.

An **Environmental Caution** is a written notice from the Environment Agency, Natural England, CCW, DEFRA, WAG, English Heritage, CADW or local authority requiring actions to comply with the law, or to return to compliance, within a specified period.

An **Environmental Compliance Notice** is defined by the Environmental Civil Sanctions Order (England and Wales) as a Regulator's written notice requiring actions to comply with the law, or to return to compliance, within a specified period.

An **Environmental Enforcement Undertaking** is defined by the Environmental Civil Sanctions Order (England and Wales) as an offer, formally accepted by the Regulator, to take steps that would make amends for non-compliance and its effects.

An **Environmental Fixed Monetary Penalty** is defined by the Environmental Civil Sanctions Order (England and Wales) as a low-level fine fixed by legislation that the regulator may impose for a specified minor offence.

**Environmental Prosecutions** are Criminal or civil charges brought against someone for environmental damage.

**Environmental Reportable Incidents** are environmental incidents likely to cause damage or danger to the natural environment (pollution - air, land, water, illegal waste disposal, watercourse damage, or poaching).

An **Environmental Restoration Notice** is defined by the Environmental Civil Sanctions Order (England and Wales) as a Regulator's written notice requiring steps to be taken, within a stated period, to restore harm caused by non-compliance, so far as possible.

An **Environmental Stop Notice** is defined by the Environmental Civil Sanctions Order (England and Wales) as a written notice which requires an immediate stop to an activity that is causing serious harm or presents a significant risk of causing serious harm.

An **Environmental Variable Monetary Penalty** is defined by the Environmental Civil Sanctions Order (England and Wales) as a proportionate monetary penalty, which the Regulator may impose for a more serious offence.

An **Environmental Warning** is a written notice received from the Environment Agency, Natural England, Countryside Council for Wales (CCW), DEFRA, Welsh Assembly Government (WAG), English Heritage, CADW or local authority which requires immediate action to stop an activity that is causing harm or which may cause significant harm.

**Environmental Compliance Notice - see Environmental Civil Sanction**

**Environmental Enforcement Undertaking - see Environmental Civil Sanction**



## **Environmental Fixed Monetary Penalty - see Environmental Civil Sanction**

## **Environmentally Beneficial Technologies**

Qualifying items where HMRC allows a claim for a 100% First Year Allowance (FYA) to be claimed against the cost of the item, which include:

- certain energy-saving and water efficient equipment, but only if the item appears on a specific list of qualifying equipment (these are known as 'Enhanced Capital Allowances (ECA)')
- new cars with very low carbon dioxide emissions
- certain vehicle gas refuelling equipment
- zero emission goods vehicles
- plant and machinery for use in certain enterprise zones.

## **Environmental Management System (EMS Scheme)**

Processes, procedures and systems in place which are accredited and certified, typically in accordance with ISO 14001 Environmental Management System standard. The certification can be applicable to a company's whole operations or specific parts of a company's operations.

## **Environmental Prosecution - see Environmental Civil Sanction**

## **Environmental Reportable Incident - see Environmental Civil Sanction**

## **Environment Report**

Has the meaning given to it in Standard Condition 47 (Environment Reporting) of the electricity distribution licence.

## **Environmental Restoration Notice - see Environmental Civil Sanction**

## **Environmental Stop Notice - see Environmental Civil Sanction**

## **Environmental Variable Monetary Penalty - see Environmental Civil Sanction**

## **Environmental Warning - see Environmental Civil Sanction**

## **Equipment to Manage Losses**

Assets or capital projects undertaken where the primary driver is management of technical losses. Initiatives which have losses benefits but where managing distribution losses is not the primary driver are not within the scope of this definition (for example, if the installation of a low loss transformer is primarily driven by asset health reasons rather than losses).

## **ERDCs - see Early Retirement Deficiency Contributions**

## **ESPS (Electricity Supply Pension Scheme)**

A scheme with a number of sub groups covering many employees in the industry. A number of Groups participate in the Scheme, principally those electricity distribution companies based in England and Wales which were privatised in 1990. The Scheme is administered by a Trust Company called Electricity Pensions Trustee Limited (EPTL). Directors of EPTL are drawn from the Trustee and from the Group Trustees of the other Groups participating in the Scheme.

## **ETR 132 – Other Work to Achieve Compliance**

Circumstances where Tree Cutting ETR 132 compliance is declared and achieved without the requirement for physical work or where compliance is achieved due to work on other capital schemes.

## **ETR 132 – Overall Network Length Cleared and Meeting ETR 132 Compliance**

The amount of physical and non-physical work that has been undertaken to achieve ETR 132 Compliance.

## **ETR 132 – Physical Cut**

Tree Cutting ETR 132 activity that is a result of physical activity undertaken felling or trimming vegetation from around network assets. The whole circuit should be clear in order for it to be counted towards being compliant.

## **ETR 138**

ETR 138 – ‘Resilience to Flooding of Grid and Primary Substations’ (2009) was issued as a result of the ENA Substation Resilience to Flooding Task Group to develop a risk-based methodology, providing guidance on how to improve the resilience of electricity substations to flooding.

The ETR introduced the need to consider the risk of extreme flooding (represented by the Environmental Agency’s 1 in 1000 flood maps) at larger installations (supply and grid supply points), and prescribed the use of cost/benefit analysis and the analysis of the societal impact of a flooding event.

ETR 138 addresses the risk management of floods due to coastal, river, surface water and groundwater flooding and will also issue guidance on the impact of coastal/tidal surges.

## Exceptional Events

Where a DNO’s CIs and CMLs (incentivised interruptions performance) are affected by exceptional circumstances, as set out in Part F of CRC 2D (Adjustment of licensee’s revenues to reflect interruptions-related quality of service performance) of the electricity distribution licence, an Exceptional Event has occurred.

Exceptional events are classified as one of the following:

### 1) Severe Weather Exceptional Event:

As defined in paragraph 2D.31, an exceptional severe weather event:

- is deemed to begin at the beginning of a 24-hour period when the number of incidents caused by the event at distribution higher voltage in that period is equal to or greater than the commencement threshold number, and
- is deemed to end at the time determined by the Authority having regard to:
  - such time as the licensee may have declared was the end of the severe weather event in its statement of facts
  - the time of restoration of the last Customer off supply due to an LV incident linked to the underlying cause of the severe weather, (provided that all Customers off supply due to high voltage incidents linked to the underlying cause of the severe weather event have been restored), and
  - the end of a 48-hour period when the number of Customers off supply due to high voltage incidents linked to the underlying cause of the severe weather event has fallen to zero.

For the purposes of the Costs and Volumes Reporting Pack, where a Severe Weather Exceptional Event that qualifies against the criteria above, also passes the Severe Weather 1-in-20 Event threshold, the full duration of this event is to be considered a Severe Weather 1-in-20 Event.

DNO	Exceptionality thresholds (weather)	
	Severe Weather Exceptional Event	Severe Weather 1-in-20 Event
ENWL	55	290
NPGN	37	194
NPGY	40	209
WMID	63	332
EMID	64	336
SWALES	41	217
SWEST	60	316
LPN	14	74
SPN	54	285
EPN	91	479

DNO	Exceptionality thresholds (weather)	
	Severe Weather Exceptional Event	Severe Weather 1-in-20 Event
SPD	76	400
SPMW	68	359
SSEH	60	315
SSES	67	351

**2) Other Exceptional Event:**

An 'other event' has the following criteria:

- the first is that the occurrence of the event was a consequence of either:
  - an external cause (including, without limitation, an event arising from an incident on a Transmission System or other connected network, or from terrorism or vandalism), or
  - an internal cause:
    - that was not attributable to any culpable error by the licensee in relation to the installation, operation or maintenance of an asset forming part of its distribution system, or
    - the consequence of which could not reasonably have been avoided by the licensee
- the second requirement is that the event contributes more than the relevant threshold amount to CIIS or CMLIS in a three-month period as detailed below:

DNO	Other event exceptionality thresholds	
	CIIS	CMLS
ENWL	1.06	0.84
NPGN	1.58	1.26
NPGY	1.10	0.88
WMID	1.01	0.81
EMID	0.95	0.76
SWALES	2.26	1.80
SWEST	1.60	1.28
LPN	1.10	0.88
SPN	1.11	0.89
EPN	0.70	0.56
SPD	1.25	1.00
SPMW	1.68	1.34
SSEH	3.33	2.67
SSES	0.84	0.67

## **Excluded Market Segments**

The six segments in the market specified in CRC 2K (Margins on licensee's Connection Activities) of the electricity distribution licence where it is not possible to charge a Regulated or Unregulated Margin. These are defined in this glossary and are:

- LV Metered DPCR4 Connection Projects
- HV Metered DPCR4 Connection Projects
- EHV Metered DPCR4 Connection Projects
- 132kV Metered DPCR4 Connection Projects
- Single Service LV Connection
- Small Project Demand Connection (LV).

## **Exemptions (for Connections)**

Exemptions specified in Regulation 15 of the Electricity (Connection Standards of Performance, Condition 5 of the DG Standards Direction and paragraph 15.5 of Standard Condition 15 (Standards for the provision of Non-Contestable Connection Services) of the electricity distribution licence.

## **Expenditure on DSM to Avoid General Reinforcement**

Direct or indirect expenditure on systems or payments to customers that enable demand to be constrained at times to reduce the requirement to reinforce the network.

## **Export MPAN**

An MPAN for the exporting of an electricity supply to the DNO's network.

## **External Parties**

Any party which is not an affiliate, joint venture, associate or an affiliate of a relevant associate of the licensee (Opposite of Related Party definition).

## **External Rent**

A charge for property rental reflecting actual lease payments on normal accruals basis.

## **Extra-high voltage (EHV)**

A nominal voltage equal to or greater than 22kV but less than 132kV.

## F

### Fair Value

IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (ie an exit price).

FRS 102 defines fair value as the amount for which an asset could be exchanged, a liability settled, or an equity instrument granted could be exchanged, between knowledgeable, willing parties in an arm's length transaction.

### Fault

Any incident arising on the licensee's distribution system, where statutory notification<sup>3</sup> has not been given to all customers affected at least 48 hours before the commencement of the earliest Interruption (or such notice period of less than 48 hours where this has been agreed with the customer(s) involved).

### Fault Current Limiters

As featured in the transform model developed through the smart grids forum, the use of superconducting materials, as a form of non-linear resistor, to clamp fault current levels at HV to within predefined limits, or the application of reactors part way down a HV circuit to limit fault current.

### Fault Level

The maximum fault current flowing into a direct short circuit fault (ie with no fault impedance), as would be measured at the point of fault. For a particular location a number of different fault levels may be determined. These can represent different conditions that consider nature of the fault (eg three phase - earth, or single phase - earth), duration of the fault current/operation (and operating time) of plant (eg subtransient, transient or steady state currents, 'make' conditions or 'break' conditions etc) and consideration of ac and dc components, as appropriate.

The duty imposed upon an item of plant or apparatus, during short circuit fault conditions, requires consideration of the fault current flow that results in the item itself.

### Fault Level Duty > 95% of Rating

The prescribed criteria to be applied in respect of reporting the number of Switchboards/Substation Busbars where the fault level exceeds the prescribed criteria. In this context the prescribed criteria is where one or more items of switchgear have a fault level duty upon them that exceeds 95% of their individual fault current rating, for either three phase or single phase fault conditions.

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<sup>3</sup> Regulation 14 of the Electricity (Standards of Performance) Regulations 2010.

The fault level duty upon an item of switchgear considers the maximum fault current flowing through the switchgear itself, under both 'make' and 'break' operating conditions (as appropriate), against the relevant fault current ratings for the operating conditions.

### **Fault Level Operational Restrictions**

The use of operational procedures to manage the risks associated with fault level issues, including restrictions upon the operation of, or access to, switchgear or other equipment. This may require the network to be rearranged, to reduce the fault level, to permit operation or access, which in some cases may temporarily reduce security of supply.

### **Fault Level - Other**

Investment schemes to address fault level issues where the scope of the scheme does not involve replacement of the transformer or Switchboards/Substation Busbars.

### **Fault Level Reinforcement**

Work carried out on the existing network where the primary objective is to alleviate fault level issues associated with switchgear or other equipment.

### **Fault Level Reinforcement Schemes**

Schemes undertaken with the primary objective of alleviating fault level issues associated with switchgear or other equipment.

Fault level reinforcement schemes should be categorised on the basis of the solution to the works. For example, where the solution, to overcome the problem of fault level duty exceeding capability of a switchboard, is to install a high impedance transformer, then the fault level reinforcement scheme should be categorised as transformers.

### **Fault Level Risk Mitigation**

Measures to mitigate the risks associated with fault level issues.

### **Fault Level Status At Year End**

Fault level reporting requirements in respect of Switchboards/Substation Busbars at the end of the reporting year. The reporting requirements relate to reporting of the number of Switchboards/Substation Busbars where the fault level exceeds the prescribed criteria.

### **Fault Rate**

The incidence (per unit) of unplanned incidents for a specific category of Distribution Asset.

## **Fault Rate Asset Category**

Any category of Distribution Asset for which the DNO is required to provide Fault Rate information.

## **Fault Repair**

In relation to unmetered connections, fault repair means the restoration of supply to a street light or street furniture.

## **Faults (PCFM Cost Type)**

This is a PCFM Cost Type, which reports the costs of the following activities, with the exception of Pensions costs (which are reported in the 100% 'revenue pool' expenditure):

- Faults
- Severe Weather 1-in-20 Events
- Occurrences Not Incentivised (ONIs).

## **Final Connection Date**

- For LVSSA projects and LVSSB projects with only one connection, the date of the completion of electrical works to the point that, subject only to the fitting of an appropriate meter where necessary, Energisation would be possible.
- For LVSSB projects with more than one connection, the date of the completion of electrical works to the point that, subject only to the fitting of an appropriate meter where necessary, Energisation would be possible to the last connection covered by the project.

## **Finance and Regulation**

Performing the statutory, regulatory and internal management cost and performance reporting requirements; and customary financial and regulatory compliance activities for the DNO.

Accounts Processing:

- Payments and receipts
- DUoS billing
- Credit and debit control
- Billing and credit control associated with claims against third parties for damage to DNO property.

Connections policy and agreement management:

- Connection charge policy formulation
- Un-metered connections records
- Connection agreement administration.

Financial Management:

- Internal and external audit



- Financial planning, forecasting and strategy
- Financial accounting
- Management accounting
- Statutory reporting (excluding regulatory reporting, which is in the definition for Regulation)
- Banking and treasury management
- Maintaining the financial asset register
- Taxation: Compliance, planning and management – internal and external.

Income management:

- Transmission exit charges administration
- Tariff formulation
- Revenue forecasting.

Procurement:

- Identify strategic needs for materials and services
- Conduct market analysis
- Identify potential suppliers
- Undertake background review
- Select suppliers and negotiate contracts
- Purchase order fulfilment
- Monitoring supplier performance.

Regulation:

- All costs of monitoring, complying with and updating the regulatory licence (includes collaborative work with Ofgem)
- Regulatory reporting of costs, revenues, asset data and financial resources
- Reporting of quality of service data and of other non-financial regulatory reporting required by the regulator
- The cost of any other activities imposed by a licence condition which are unique to a regulated company.
- Subscription to trade associations, eg ENA.

Settlements data management:

- Costs associated with monitoring and auditing the quality of data received from Settlements and used in DUoS and losses reporting.

The overall Finance and Regulation activity EXCLUDES:

- Insurance related costs and recoveries (include in Insurance totals)
- Maintaining the physical asset register(s); and any of the IT systems associated with finance and regulation (include under IT & Telecoms)
- Ex-gratia compensation payments and Guaranteed Standards of Performance compensation payments (include in Non Activity Based Costs).

## Financial Year

For the purposes of regulatory reporting is a period of 12 months ending on 31 March of any year. A financial year to be reported under the year in which it ends (ie a financial year 1 April 2015 to 31 March 2016 to be reported as financial year '2016').

## **Fines and Penalties**

Any fines or penalties paid by the DNO that do not fall within the categories of:

- Notice Penalties
- Inspection Penalties (part of Investigatory Inspections and Penalties)
- Overstay Fines
- Permit Penalties.

Includes all tax penalties, fines and interest.

## **Fire Blankets - Link Box**

New fire blankets installed on link boxes to reduce the effect of Catastrophic Failure.

## **Fire Protection Substation**

The provision of fire protection system improvements including emulsifier and inert gas systems but excluding improvements to fire prevention or fire detection systems only.

## **Firm Capacity (FC)**

The amount of energy available for distribution which can be (and in many cases must be) guaranteed to be available at a given time.

A network's firm capacity is likely to change due to network load growth or DNO interactions.

## **Fixed**

In relation to charges means a charge or mortgage secured on particular property, eg land and buildings, machinery, shares, intellectual property.

## **Flats**

All other dwellings that are not a House (see definition) or a Multi-Storey (see definition).

## **Flexible AC Transmission Systems**

As featured in the transform model developed through the smart grids forum, the series or shunt connected static power electronics as a means to enhance controllability and increase power transfer capability of the network.

## **Floating**

In relation to charges means a particular type of security, available only to companies. It is based upon an equitable charge on all the company's assets both present and future, on terms that the company may deal with the assets in the ordinary course of business.

## Flood Defences

Existing or proposed physical measures to limit or eliminate the risk of flood damage to a substation or operational asset. These measures may take a number of forms:

- The construction of a waterproof subterranean “wall” around the perimeter, extending above ground (eg concrete, sheet piling).
- The construction of a waterproof wall within the site to protect specific assets eg switchgear, transformers or individual buildings (switch rooms). Specific improvements to the design of a building, eg raising walls, tanking, sealing cable troughs, demountable barriers, flood doors.
- The erection of a portable flood barrier around the perimeter of the substation using a bespoke flood defence system (if the cost/benefit assessment cannot justify a permanent defence).
- The raising of substation assets to a level above the indicated flood height.
- The relocation of the substation to a location away from or above flood risk.

## Flooding Level of Protection

The level of flooding risk that is to be provided (1/100, 1/200, 1/1000) once flood defences have been installed.

## Flooding Non-Site Specific Costs

Costs associated with the purchase of temporary equipment to act either as flood defences or to offset/mitigate flood risk.

## Flooding Risk

The probability of flooding, as identified as part of the ENA Substation Resilience to Flooding Task Group, is to be measured as a “return period” in years to the nearest whole number, ie the average period in years that will pass without the site flooding. For example, if there is a risk of a substation flooding once in 20 years, this must be categorised as a flood risk of 1/20 (to be measured to the nearest whole number).

## Flooding Risk (ETR 138)

The probability of flooding for each substation identified in ETR 138 (q.v.). ETR 138 sets out to establish predicted flood depth and other key factors that determine which substations are “at risk” ie where the predicted depth of flooding is likely to cause damage to electrical assets at the substation resulting in the loss of supplies to customers.

The fluvial flooding risk (q.v.) is expressed in terms of the risk of damage to a substation as a result of flooding in any 1 year. Where detailed analysis is not available to determine the exact level of risk to the nearest whole number, the level of risk to a site should be determined from the EA/SEPA indicative flood map contours and should therefore be categorised into one of the following, in accordance with ETR 138:

- 1/100 - The probability that a site experiences damage as a result of flooding that statistically has a 1% chance of occurring during any 1 year.
- 1/200 - The probability that a site experiences damage as a result of flooding that statistically has a 0.5% chance of occurring during any 1 year.
- 1/1000 - The probability that a site experiences damage as a result of flooding that statistically has a 0.1% chance of occurring during any 1 year.

## **Flooding Site Surveys**

These surveys take two forms:

- Detailed flooding site survey - Comprehensive assessment of flood risk at an individual site containing topographical survey; likely level of flood risk from potential flooding due to water courses; flooding from other sources including surface water, groundwater, reservoir failure and inadequate drainage; Hydraulic modelling where appropriate.
- Simple flooding site survey - Flooding survey to determine modelled flood zone (expressed in terms of return period); min., max. and mean depth of flooding.

## **Flood Mitigation**

Current physical and non-physical measures of flood prevention in place on a site and/or potential improvements that reduce the risk of flooding.

## **Flood Mitigation Scheme**

Physical works undertaken with the primary purpose of providing Flood Mitigation at a substation.

## **Flood Plain**

An area of land adjacent to a water course, ie stream or river, that is subject to periodic flooding whenever water levels rise and exceed those of the banks of the water course.

## **Fluid Filled Cables**

Pressurised fluid filled underground cables.

## **Fluid Filled Cables in Service**

Commissioned and energised pressurised fluid filled underground cables.

## **Fluid Recovered**

Fluid associated with pressurised fluid filled underground cables that has leaked from a cable and is subsequently recovered and includes:

- fluid captured in a container whilst jointing works are being undertaken

- spoil removed from site because it has become saturated with fluid during a cable leak.

In order to avoid double counting, the volume of fluid used to top up a cable in order to prevent pressure reaching the Pressure emergency level prior to jointing or repair should be excluded.

### **Fluid Used to Top Up Cables**

Fluid pumped into pressurised fluid filled underground cables and includes fluid used to:

- bring a circuit back up to pressure from a lower pressure level
- sustain a circuit fluid pressure from reaching Pressure emergency (Pe) level prior to jointing or repair of a leak.

### **Fluvial Flooding**

Flooding that occurs as a result of flooding from rivers and watercourses. It is closely related to Coastal Flooding and Fluvial & Coastal Flooding schemes are analysed together in the Flood Mitigation worksheets in the Costs and Volumes Reporting Pack. These two are distinguished from Pluvial or Surface Water Flooding. Flood mitigation schemes and flooding surveys will be targeted at mitigating the risk from fluvial flooding to their electrical assets.

### **Forecast Amount of Revenue Relating to Theft Recovery**

This amount is zero for all DNOs, except ENWL, where the value for each Regulatory Year is set out in Appendix 1 of CRC 5F (Treatment of income from recovery in respect of Relevant Theft of Electricity) of the electricity distribution licence.

### **Free Cashflow**

A measure of financial performance calculated as operating cash flow minus capital expenditures. Free cash flow (FCF) represents the cash that a company is able to generate after laying out the money required to maintain or expand its asset base.

### **FRS 101/102**

*FRS 101 Reduced Disclosure Framework* permits qualifying entities to apply accounting policies that are consistent with EU-adopted IFRS, but allows exemptions from certain disclosure requirements. As a result it diverges from IFRS by permitting reduced disclosures.

*FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland* is based on the International Accounting Standards Board's (IASB) International Financial Reporting Standard for Small and Medium-sized Entities (IFRS for SMEs) issued in 2009 and applies to the general purpose financial statements with full disclosures produced under UK GAAP.

## **Fuel Combustion**

A category of BCF reporting which captures the emissions caused by non-building fuel usage, such as mobile plants and the stand-by diesel mobile generators that are deployed from time to time in response to planned outages or faults. This excludes fuel consumed by business or operational activities.

## **Fuels Other**

A category of BCF reporting which captures the emissions caused by the combustion of fuels other than diesel or natural gas for non-building fuel usage, such as mobile plants and the standby mobile generators that are deployed from time to time in response to planned outages or faults. This excludes fuel consumed by business or operational vehicles.

## **Fugitive Emissions**

Emissions that are not physically controlled but result from the intentional or unintentional releases of greenhouse gases. They commonly arise from the production, processing transmission storage and use of fuels and other chemicals, often through joints, seals, packing, gaskets etc.

## **Full Time equivalent (FTE) Employee**

The number of normal hours worked by an employee divided by the normal hours of a full-time member of staff in an equivalent role according to his or her contract of employment.

## **Funds from Operations**

Net income from continuing operations, depreciation and amortisation, deferred income taxes and other non-cash items. (Definition from Standard and Poor's Corporate Ratings Criteria 2006)

## **Fuses (PM)**

Low voltage fuses which are pole mounted.

## **Fuses (GM) (TM)**

Low voltage fuses which are ground mounted or transformer mounted, including fuseways in LV pillars.

## **G**

## **Gas Insulated Switchgear (GIS)**

Switchgear with gas-insulated busbars.

## **Gas Natural**

BCF emissions resulting from fuel combustion attributed to natural gas.

## **Gases Other**

Fugitive BCF emissions attributed to all gases except SF6.

## **General and Fault Level Reinforcement – See Network Design and Engineering**

### **General Reinforcement**

Work carried out on the network to enable new load growth (both demand and generation) which is not attributable to specific customers.

#### **General Reinforcement (EHV & 132kV N-1)**

Work carried out on the network which is required to maintain or restore compliance with ER P2/6 or avert future non-compliance for first circuit outages.

#### **General Reinforcement (EHV & 132kV N-2)**

Work carried out on the network which is required to maintain or restore compliance with ER P2/6 or avert future non-compliance for second circuit outages (a fault outage following an arranged outage).

#### **General Reinforcement (EHV & 132kV Other)**

Work carried out on the network which falls outside of 'General Reinforcement (EHV and 132kV N-1)' and 'General Reinforcement (EHV and 132kV N-2)' such as:

- reinforcement to correct potential voltage non-compliance
- reinforcement to correct issues at a lower voltage where it is the most efficient and economic solution.

### **Generation Connection**

A new or modified connection (excluding any modification comprising only an alteration to the position of a meter) the purpose of which is to enable the Electricity Distributor's distribution system to receive a supply of electricity from the premises.

### **Generator Providing Network Support**

As featured in the transform model developed through the smart grids forum, the contracting with a generator for them to operate their sets in PV (Real power and volts) mode rather than the conventional PQ (Real and Reactive power). The generator will draw VARs from the network at certain times, but ensure that the voltage on the network is not excessively raised at the point of connection.

## **Global Tactical Asset Allocation (GTAA)**

A flexible strategy implemented through myriad asset classes and approaches. GTAA funds are designed to offer risk reduction, uncorrelated returns and liquidity.

## **GM Indoor Substation**

A ground mounted substation where one or more items of plant are completely enclosed within a DNO owned building or enclosure.

## **GM Outdoor Substation**

A ground mounted DNO owned substation where all the associated plant and apparatus is outside any building or enclosure and is exposed to the elements.

## **GM Third Party Substation**

A ground mounted substation where any building, enclosure or surround is owned and maintained by a third party.

## **Greenhouse Gas Emission**

The release of greenhouse gases into the atmosphere, including carbon emissions. Within the BCF, greenhouse gas emissions, eg SF<sub>6</sub>, are calculated as equivalent carbon dioxide emissions.

## **GS Payments Paid in Year and Residual from Previous Year - Payment Reconciliation Table**

These tables are for recording the payments made to customers in the reporting year, and any payments which were not made until the following year and include the following:

- GS Compensation Payments
- Ex-Gratia Compensation Payments
- Connections Guaranteed Standards of Performance Compensation Payments
- Ex-Gratia Compensation Payments (Connections)
- Distributed Generation Standards Direction issued under Standard Condition 15A
- Ex-Gratia Compensation Payments (Distributed Generation Standards Direction issued under Standard Condition 15A)
- Any Other Ex-Gratia/Goodwill Compensation Payments.

## **GSR**

As featured in the transform model developed through the smart grids forum, the use of commercial contracts, underpinned with automated signalling, between a DNO and generation customer(s) to ramp down export under certain network conditions.



## **GWh**

Gigawatt hours (1,000,000,000 watt hours).

## **H**

### **Halted Project Revenues (LCN Fund)**

Has the meaning given to it in CRC 2J (Low Carbon Networks Fund) of the electricity distribution licence.

### **Halted Project Revenues (NIC)**

Has the meaning given to it in CRC 5A (The Network Innovation Competition) of the electricity distribution licence.

### **Health Index (HI)**

A framework for collating information on the health (or condition) of Distribution Assets. This framework shall enable:

- tracking of changes in asset condition over time
- identification of the Probability of Failure associated with the asset condition.

For a particular asset, the reported Health Index is provided by the location of the asset within the Health Index Bands. A common approach to assessing Health Index Bands will be defined as part of the Common Network Asset Indices Methodology. Prior to the common approach being defined, the approach to assigning Health Index Bands used in the completion of the RIIO-ED1 Business Plan Data Templates and Network Assets Workbook is retained.

Using this approach each asset is assigned to a Health Index Band between HI1 and HI5 by the DNO based on its assessment of the asset's overall health or condition. For forecasts of future positions the DNO's views about future degradation is used to assign the appropriate Health Index Band.

### **Health Index Asset category**

Asset categorisations for which DNOs were required to provide Health Index information during DPCR5 and for the RIIO-ED1 price control settlement, as reported in the RIIO-ED1 Business Plan Data Templates and the Network Assets Workbook. These are aggregations of several different Distribution Assets.

### **Health Index Band**

Bandings assigned to assets based on the DNO's assessment of an asset's overall health or condition, as follows:

- HI1 - New or as New
- HI2 - Good or serviceable condition
- HI3 - Deterioration requires assessment and monitoring

- HI4 - Material deterioration, intervention requires consideration
- HI5 - End of serviceable life, intervention required.

### **HHSCP (Half-hourly Settled Connection Point)**

A connection point that, in accordance with the BSC, is registered in SMRS as having a Half Hourly Metering System (which may include an Equivalent Meter). Energy may enter or exit the distribution system at a Half-hourly Settled Connection Point.

### **High-cost project threshold**

The threshold of £200/kW, as specified in the connection charging methodology, applied to reinforcement works triggered by DG projects. If reinforcement works triggered are beyond this threshold, the project is required to pay the full cost of reinforcement.

### **High priority fault repair - non Traffic Light Controlled**

Work that is urgent but would not require attendance outside normal working hours to restore electricity supplies to street lighting or street furniture other than traffic lights.

### **High priority fault repair - Traffic Light Controlled**

Work that is urgent and would require attendance outside normal working hours to restore electricity supplies to traffic lights.

### **High Voltage (HV)**

Nominal voltages over 1,000 volts but less than 22kV.

### **Higher Voltages**

Higher voltages include HV, EHV and 132kV networks.

### **Horizontal Clearance**

The horizontal distance between an overhead line and a building or structure.

### **Houses**

A dwelling divided vertically from every other dwelling and with its principal access from ground level. Includes detached, semi-detached and terraced houses.

### **HR (Human Resources)**

The division focused on activities relating to employees.

INCLUDES:

- provision of the Human Resources function

- industrial and employee relations, including developing HR strategy, policies and procedures
- all costs of recruiting all new staff (operational and non-operational staff)
- monitoring equal employment opportunity
- HR involvement in staff performance development and reviews
- payroll management
- cost of communications to staff, including staff magazine and internal websites
- Pension Scheme Administration Costs that cannot be easily apportioned to activity costs.

**EXCLUDES:**

- any costs associated with Training (see definitions for Operational Training and Non-Operational Training)
- costs associated with staff whose line management responsibilities require them to apply HR policies (include as labour cost under the relevant activity of that employee)
- any PPF levy and pensions admin cost paid directly by the company rather than via contributions; which should be apportioned across all pension costs following the activities, where possible.

## **HV Network**

The DNO network that operates at all voltages above 1,000 volts but less than 22kV.

## **HV Systems**

High voltage (HV) includes all voltage levels above 1,000 volts but less than 22kV.

The lower boundary of HV Systems should be taken as the supply terminals of customers supplied at HV, and in other situations as the load-side terminals of the protection equipment connected to the secondary side (lower voltage) of distribution transformers respectively. Where the transformer does not have any secondary-side protection equipment, the boundary must be the bolted connection between the transformer tail and the lower voltage busbar. The upper boundary should in general be taken as the busbar side of lower voltage switchgear of transformers whose primary voltage is EHV or above and whose secondary voltage is HV. If no secondary switchgear exists, the upper boundary should be taken as the secondary-side terminals of the EHV or above transformer: incidents on the system connected to the secondary voltage terminals of the transformer should be reported as HV incidents and not as EHV or 132kV incidents.

## **HV or EHV End Connections Involving 132kV Work**

Connection Projects providing exit point(s) at either HV or EHV, where the highest voltage of the assets involved in providing the exit point(s), and any associated works, is 132kV.

## **HVP (High Value Projects)**

Schemes specified and agreed with individual DNOs to be undertaken during RIIO-ED1 that were specified in the ED1 Final Determination or included during the price

control period in accordance with CRC 3F (Arrangements for the recovery of uncertain costs) of the electricity distribution licence.

### **HVP (High Value Projects) – DPCR5**

HVP schemes specified and agreed with individual DNOs to be undertaken during DPCR5 and continued in RIIO-ED1.

### **HV Sub Cables**

HV cable which is placed below the surface of the water and laid on or under the sea bed or the bed of a river or estuary whether or not designed for this purpose.

### **Hydro**

A category of DG. Electricity generation using a hydroelectric generator.

### **I**

### **IDNO (Independent Distribution Network Operator)**

Any Electricity Distributor in whose Electricity Distribution Licence the requirements of Section B of the standard conditions of that licence have no effect (whether in whole or in part).

### **IFRS - see International Financial Reporting Standards**

### **Independent Connections Provider (ICP)**

A person or body with sufficient accreditation to carry out all or part of the Contestable work related to a connection.

### **Intelligent Control Devices (EVs)**

As featured in the transform model developed through the smart grids forum, the novel monitoring and control solution to manage the supply of electricity to EVs connected to distribution networks, ensuring that the load of all EV chargers does not take the load above the rating of the LV circuit.

### **Incident**

Any occurrence on the DNO's distribution system or other connected distributed generation, transmission or distribution system, which:

- results in an Interruption of supply to customer(s) for three minutes or longer, or
- prevents a circuit or item of equipment from carrying normal load current or being able to withstand through fault current for three minutes or longer.

## **Incident on Other Systems**

Any incident arising on other connected electricity systems which leads to the Interruption of supply to the customers of the licensee, including:

- National Grid Electricity Transmission (NGET) or transmission companies (in Scotland)
- distributed generators
- any other connected systems – which should be identified.

## **Income from Theft Recovery**

Has the meaning given in CRC 5F (Treatment of income from recovery in respect of Relevant Theft of Electricity) of the electricity distribution licence.

## **Independent Connection Provider (ICP)**

A provider of connections other than a DNO with sufficient National Electricity Registration Scheme accreditation to carry out all Contestable works.

## **Indirect Activities**

Activities listed below, which in most cases support work being physically carried out on network assets, that could not, on their own, be classed as a direct network activity. Indirect Activities generally do not involve physical contact with system assets, whereas direct activities do.

INCLUDES:

- Closely Associated Indirects
- Business Support Costs
- Non-Operational Capex.

Note that operational engineers working on planning and project mobilisation, preparing and planning associated with protection settings, administration of outages, contract specification and liaising with contractors and customers are considered Indirect Activities.

EXCLUDES:

- site surveys and non site based costs associated with flooding (in Direct Activities)
- resourcing and project preparation and Second Tier bid preparation associated with Low Carbon Networks (in Direct Activities).

## **Indirect Costs**

The costs incurred undertaking Indirect Activities.

## **Information**

Information means, in relation to any service to be provided by the Electricity Distributor, accurate information relating to Contestable and/or Non-Contestable connection services.

## **Injurious Affection**

Claims made for the detrimental effect upon property of the location of distribution network assets.

Volumes of injurious affection should be reported only when the claim has been settled and a new agreement is in place.

## **Innovation Roll-out Mechanism (IRM)**

The mechanism for funding the roll-out of proven innovations as provided for under CRC 3D (The Innovation Roll-out mechanism) of the electricity distribution licence.

## **Innovative Solutions**

A working group will determine the definition of Innovative Solutions. Until such time as the working group can provide definitions, only solutions that meet one of the following criteria can be defined as Innovative Solutions:

- has been trialled by any DNO as part of an LCNF, NIC, NIA, or IFI innovation project during DPCR5 or RIIO-ED1.
- was considered a smart solution as part of the RIIO-ED1 smart solutions assessment.
- involves the application of technology, systems or processes not in widespread use at the beginning of RIIO-ED1 to provide long term direct benefits to distribution network customers through:
  - improving the utilisation or provision of network capacity for demand or generation (including demand side solutions)
  - improving the management of asset condition to reduce lifetime costs
  - increasing the DNO's ability to manage network performance, safety or security, or
  - improving the level of service provided to network customers.

Direct benefits can include improvements in economic performance, environmental benefits, safety, quality of service, reliability, and/or resilience.

## **Insourcing**

Performances of a business function internally. Insourcing is the opposite of outsourcing. Insourcing is a business decision that is often made to maintain control of critical production or competencies. For the avoidance of doubt, where a role within the organisational structure (or within a project or programme team) is filled by individual sub-contractors the cost should be included here.

## **Inspections**

The visual checking of the external condition of system assets including any associated civil constructions such as buildings, substation surrounds, support structures, cable tunnels and cable bridges.

**INCLUDES:**

- Helicopter and foot patrols
- Hammer testing of poles
- High resolution photography
- All asset surveys of whatsoever nature and purpose, including asset condition surveys
- Inspection of tools (including lifting tackle inspections and pat testing)
- Reading gauges.

**EXCLUDES:**

- Use of diagnostic testing equipment (hammers used to test poles are not regarded as diagnostic testing equipment)
- Supervisory input to plan workloads and manage staff (include under EMCS)
- Data review except the initial recording on site (include under EMCS)
- Inspection of non-system assets (include under Property Management)
- Site surveys for flooding
- Indirect Costs
- Any of the costs associated with Repair & Maintenance.

### **Inspections - Foot Patrol**

The inspection of overhead lines via foot patrols, carried out either as a routine activity or as a non routine activity.

### **Inspections - Helicopter**

The inspection of overhead lines through the use of helicopters, carried out either as a routine activity or as a non routine activity.

### **Insulated Conductor**

An overhead conductor covered with insulating material which will prevent danger in the event of accidental contact with other objects and is deemed safe to touch.

### **Insurance Totals**

The cost of managing the insurance function and insurance premiums and claims paid out.

**INCLUDES:**

- the costs of managing the insurance function within the DNO or within related parties, including the arrangement and renewal of all insurance cover
- costs of Insurance Premiums
- any fees paid by the DNO to brokers for managing their insurance portfolio
- the activities of handling, processing and managing claims made against the DNO, whether covered by insurance or not
- the actual payments to Third Parties by DNO or by Related Party on DNO's behalf.

**EXCLUDES:**

- Ex-gratia Compensation Payments and Guaranteed Standards of Performance Compensation Payments (included in Non Activity Based Costs).

## **Insurance - Claims Paid Out to the DNOs**

The income recovered from insurance companies in respect of insurance claims made by the DNO or Related Party.

## **Intact Capacity**

With respect to the substations at Transmission Connection Points, the capacity with no local outages.

## **Interest – see Net Interest**

## **Interest Rate Swaps**

An agreement between two parties (known as counterparties) where one stream of future interest payments is exchanged for another based on a specified principal amount. Interest rate swaps often exchange a fixed payment for a floating payment that is linked to an interest rate (most often the LIBOR).

## **International Financial Reporting Standards (IFRS)**

IFRS are standards, interpretations and a framework (being a foundation of accounting standards). They are principles based and are a broad set of rules as well as directing specific treatment for preparing financial statements.

## **Interruptible Contracts**

Contracts where the DNO has an agreement with the customer, such that supply to this customer could, if required by the DNO, be interrupted/reduced, eg through demand side response. Interruptions and minutes lost due to these contracts do not need to be reported.

## **Interruption**

The loss of supply of electricity to one or more customers due to an incident. This excludes voltage quality and frequency abnormalities, such as dips, spikes or harmonics.

Where a customer (or customers) reports “low volts” then this should not be treated as a loss of supply, until the DNO confirms that the customer(s) is off supply. Equally, where a report of “reverse polarity” is received by the DNO, the customer(s) should be considered “on supply” until the DNO confirms that the customer(s) is off supply, or needs to be disconnected in order to carry out repairs to the DNO’s network.



## Intervention

A deliberate action taken by a DNO to physically alter the health or capacity of the distribution network. For example:

- Asset replacement
- Asset refurbishment
- Reinforcement to increase firm capacity for a Demand Group
- Increasing equipment fault level ratings
- Operational measures
- Permanent load transfers
- Execution of a contract for demand side response or distributed generation.

## Involving Onsite Diversionary Works as Part of Project

Where a Connection Project involves any diversion work wrapped up within the quotation to the customer.

## IT & Telecoms (Business Support)

Expenditure on operating and maintaining the operational and non-operational computer and telecommunications systems and applications.

INCLUDES:

- All the operating and maintenance costs of the IT infrastructure, including:
  - Configuration and new requests, for client's personal computers, laptops, printers, hand held devices and monitors
  - Security administration
  - IT procurement
  - Help desk fault management
  - Disposals
  - Hardware maintenance and operating systems (servers, firewalls, switches & ISDXs)
  - Physical IT environmental costs and maintenance (ie air conditioning, uninterruptible power supply, fire and flood prevention and detection) where these can be differentiated from the costs of property management
  - Maintenance and all the operating costs of the IT infrastructure and management costs and Applications costs
  - First and third party application software maintenance
  - Ongoing or renewal software licence and licensing fees
  - Annual fees for the maintenance of software licences, whether or not they include the right for standard upgrades or 'patches' to the software as they become available
  - Hardware maintenance and operating systems
  - IT environmental control systems
  - Data centre operations
  - IT Server/Communication Rooms maintenance
  - Server/System administration
  - Database administration
  - Email administration

- Firewall administration
- Voice/Data LAN administration including Telephone handsets
- Enterprise management covering monitoring, backup, scheduling and capacity planning
- Disaster recovery.
- All the management and applications costs, including:
  - senior IT and Telecoms department management labour costs, except when engaged on specific infrastructure or applications
  - administration support within the IT and Telecoms activity/department
  - consumables (eg stationery, disks, moveable storage mediums)
  - other costs not relating specifically to other defined infrastructure or applications categories
  - provision, maintenance & usage costs of the Telecoms network including:
    - the cost of voice and data network circuit rentals for inter-office, home to office, Private Mobile Networks (PMRs) and field handhelds. Voice and data network, PABX, private mobile “voice” radio circuits (“PMR”), router and switch maintenance costs; Related licence fees; Usage charges for land line, mobile phones, facsimiles, field handhelds and PMR services wherever situated
    - Data usage charges
    - Call centre usage
    - Authorised home telephone account usage.
- Fees for the maintenance of software licences.

**EXCLUDES:**

- Ordnance survey data/licences
- Any of the property costs associated with IT & Telecoms (include under Property Management), except where the cost of specific IT environmental control systems can be distinguished from other property costs
- Operational IT & Telecoms ie IT equipment which is used exclusively in the real time management of network assets, but which does not form part of those network assets
- BT 21st Century costs
- IT & Telecoms (Non-Operational) expenditure.

## **IT & Telecoms (Non-Operational)**

Expenditure on new and replacement IT assets which are not system assets. These include Hardware and Infrastructure and Application Software Development.

### **Hardware and Infrastructure Costs**

**INCLUDES:**

- Purchase of IT equipment that is either located away from network assets, or does not directly relate to the control of those assets.
- Purchase and installation of new hardware systems (eg servers, firewalls, switches & ISDXs).
- Purchase of equipment for the physical IT environment (ie air conditioning, fire and flood prevention and detection), where these can be differentiated from Property costs.

- Purchase of Client equipment (eg desktops, laptops, monitors, printers, plotters).
- Purchase of Telecoms equipment (eg staff mobile devices) where not used exclusively in the real time management of network assets
- Hardware that is purchased as part of an IT software project.

**EXCLUDES:**

- Software development and upgrade costs (report under Application Software Development).
- Operational IT & Telecoms ie IT equipment which is used exclusively in the real time management of network assets, but which does not form part of those network assets (include in Operational IT & Telecoms).
- Assets associated with the telecontrol of the network (Include in Operational IT & Telecoms).
- BT 21st Century costs.
- Ordnance survey data / licences (include under System Mapping).
- Any of the property costs associated with IT & Telecoms (include under Property Management), except where the cost of specific IT environmental control systems can be distinguished from other property costs.

**Application Software Development Costs**

**INCLUDES:**

- IT software upgrade costs: New and upgraded software licences where the benefit is received over more than one year.
- Cost of software development staff employed directly by the DNO or contracted to undertake development work during the reporting year.
- Purchase and installation of new application software and their license fees.

**EXCLUDES:**

- Hardware that is purchased as part of an IT software project (include in Hardware and Infrastructure Costs).
- Annual maintenance charges whether or not they include standard upgrades to the software (include in IT & Telecoms (BS)).
- Ongoing or renewal software licence and licensing fees.
- Operational IT & Telecoms ie IT equipment which is used exclusively in the real time management of network assets, but which does not form part of those network assets (include in Operational IT & Telecoms).
- Ordnance survey data / licences (include in System Mapping)
- Any of the property costs associated with IT & Telecoms (include under Property Management), except where the cost of specific IT environmental control systems can be distinguished from other property costs.
- BT21CN costs.

**J**

**K**

## L

### Labour

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type.

Labour costs include any form of payment, consideration or other benefit, paid or due to or in respect of employees, including the costs of temporary or Agency Staff.

#### INCLUDES:

- Gross salaries and wages of all employees, including payments resulting from bonus and profit-related payment schemes
- Employer's national insurance contributions
- Salary sacrifice payments
- Sick pay
- Sickness benefits
- Private health insurance
- (non pension related) retirement awards
- Death in service benefits
- Paid leave
- Company cars or payments in lieu thereof
- Standby costs -are the costs incurred when employees are on standby to be called upon if required in the event of a specified occurrence in accordance with their terms of employment
- Agency Staff
- Subsistence
- Travel
- Entertainment expenses
- Share options (including employee share purchase plans, employee share option plans)
- Medical insurance costs
- Childcare assistance
- Protective clothing
- Welfare costs.

#### EXCLUDES:

- Professional services
- Contractors
- Company vehicles take home over night, other than company cars (include under Labour costs)
- Small tools and equipment (include under non-operational new assets and replacement)
- Pension costs (employer only)
- Pension Deficit Repair Payments.

For all activities except operational training excludes time spent on operational training courses (include in labour under operational training).

### Landfill Gas, Sewage Gas, Biogas (not CHP)

A category of DG. Electricity generation by burning gasses from landfill, sewage or biogas, but not including combined heat and power.

## **Large CHP ( $\geq 50\text{MW}$ )**

A category of DG. Electricity generation using combined heat and power plant that is greater or equal to 50MW.

## **LCN Fund**

An annual competition in DPCR5 for funding larger-scale innovative projects that had the potential to deliver carbon or other environmental benefits to consumers. The LCN Fund has been replaced by the Network Innovation Competition (NIC) for RIIO-ED1.

## **LCN Fund Directly Attributable Costs**

As defined as directly attributable costs in CRC 2J (Low Carbon Networks Fund) of the electricity distribution licence.

## **LCN Fund Royalties**

Royalties earned through LCN Fund projects.

## **Legacy Metering Equipment**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## **Legal and Safety**

Investment or intervention where the primary driver is to meet safety requirements and to protect staff and the public. This does not include assets replaced because of condition assessment or to meet ESQCR regulations 17 and 18.

## **Licence Fee Payments**

Payments by the licensee to the Authority determined in accordance with Standard Condition 5 (Licensee's payments to the Authority) of the electricity distribution licence.

## **Link Box**

A low voltage cable marshalling point with facilities for the insertion and removal of linking cables.

## **Load Index (LI)**

Tier 2 Network Output Measure related to network utilisation. The Load Index (LI) is a framework for collating information on the utilisation of the Distribution Assets supplying each Demand Group and for tracking changes in their utilisation over time.

The LI will be used to inform an assessment of the efficacy of the DNOs' general reinforcement decisions over the price control period. Under the LI framework, each

Demand Group is assigned a ranking of LI1 to LI5 by the DNO based on the loading and firm capacity at the site, and for the forecast period based on the DNO's views about future load growth, the options for Intervention and their impacts.

Using the Load Index Logic, each Demand Group is assigned an LI ranking in accordance with the definitions below:

- LI1 - Significant spare capacity
- LI2 - Adequate spare capacity
- LI3 - Highly utilised
- LI4 - Fully utilised, mitigation requires consideration
- LI5 - Fully utilised, mitigation required.

## Load Index Firm Capacity

The maximum capacity that is available at a substation, or within a substation group, immediately following the occurrence of an (n-1) incident.

This shall only include capacity that is immediately available, under such circumstances, without requiring manual intervention.

Load Index Firm Capacity shall consider:

- The capability of the remaining circuits that normally supply the demand group, following the most onerous (n-1) incident.
  - In determining the capabilities of circuits, and their components, to supply the demand group, the appropriate component ratings shall be used. These ratings shall take into account:
    - asset design
    - the prevailing winter or summer ambient conditions when the maximum demand on the substation occurs
    - the general nature of the load profile (ie continuous, cyclic etc) and duration of the maximum demand
    - the prior loading on the equipment.
    - asset rating data obtained through the use of equipment calculating the real-time thermal rating of the components.
  - Specific analysis of load profiles and prior loading is likely to only be undertaken in examining the reinforcement need at highly utilised substations, or substation groups. Where specific analysis has not taken place for a given circuit and in the absence of other evidence:
    - the rating of Continuous Emergency Rated (CER) power transformers (in accordance with EA-TS 35-2, or equivalent specification), or transformers traditionally run as such, shall be considered as being the appropriate emergency rating for the season in which the maximum demand occurs
    - the rating of non-CER power transformers, and underground cables, shall be considered as being the normal cyclic rating for the season in which the maximum demand occurs. This shall be the rating that is considered by the DNO as being applicable for typical load profiles, and shall consider the appropriate operation of any forced cooling, where available.
  - Where specific analysis has been undertaken, the appropriate rating for the profile (continuous, cyclic or emergency) shall be considered for power transformers and/or distribution ratings for underground cables.

- In the case of substations and circuits supplying a single customer and forming part of that customer's sole use assets the substation should be noted as such in the load indices. Reinforcement costs would normally fall to the customer.
- Any transfer capacity that is made immediately available through normally connected interconnection (closed parallel operation) or by automatic transfer schemes.
- Any capacity that is made immediately available through commercial contracts associated with Demand Side Response.
- Any assessed contribution to security of supply from distributed generation (in accordance with the principles outlined in Engineering Recommendation P2/6).

## Load Index Logic

Decision criteria adopted by all DNOs to allocate sites a Load Index (LI) ranking LI1 to LI5.

Demand driver: measure of the maximum demand of the Demand Group relative to the Load Index Firm Capacity of the Demand Group

Duration driver: measure of the hours/energy at risk per annum brought about by the capacity utilisation for the Demand Group.

## Load Index Max Demand

The maximum demand that is normally supplied from a substation, or substation group and it shall be based upon recorded data that has been cleansed and validated.

The maximum demand shall consider:

- the maximum demand associated with normal running arrangements
  - DNOs have discretion in the methodology behind this adjustment. But this methodology should be consistent throughout the period
- the application of suitable weather correction, where considered to be appropriate
  - DNO can choose whether or not a weather correction is appropriate for their network. Any adjustment should be relevant to average cold spell conditions
  - DNO's decision to opt in or out of making this adjustment will be binding throughout the price control period
- that the latent demand, supplied from distributed generation, is accounted for in accordance with the guidance contained in Engineering Technical Report 130
- where identified, any non-firm demand shall be excluded from the maximum demand.

## Load Related Capex

This is PCFM Cost Type, which reports the costs of the following activities, with the exception of Pensions costs (which are reported in the 100% 'revenue pool' expenditure):

- Connections within the price control
- Primary Reinforcement
- Secondary Reinforcement
- Fault Level Reinforcement
- New Transmission Capacity Charges.

## **Load Related Expenditure**

Costs incurred by the licensee, after the deduction of customer funded reinforcement, in developing its distribution system because of:

- system reinforcement associated with shared-asset connections
- general reinforcement of the licensee's Distribution System
- fault level reinforcement of the licensee's Distribution System
- New Transmission Capacity Charges, or
- the accommodation of Distributed Generation and low-carbon devices onto the Distribution System.

For the purposes of this definition, Load Related Expenditure does not include costs associated with High Value Projects.

## **Long Life Assets Pool**

A special rate pool for long life assets which are assets whose expected working life when new is more than 25 years. Long life assets should be included in the special rate pool where a writing down allowance of 8% per annum is applicable.

## **Losses**

A measure of the difference between units entering and units exiting the DNO network through different connection points.

## **Low Carbon Technologies (LCTs)**

LCTs is the collective term for the following technologies:

- Heat pumps at existing connections that do not lead to a new or modified connection
- Electric vehicle (EV) chargers, both slow and fast charging, at existing connections that do not lead to a new or modified connection
- Photovoltaics (PV) connected under Engineering Recommendation G83
- Other renewable Distributed Generation (DG), excluding PV, connected under Engineering Recommendation G83
- Renewable DG not connected under Engineering Recommendation G83.

## **LV (Low Voltage)**

Voltages of 1kV and below.



### **LV Board (WM)**

Wall-mounted distribution boards within indoor substations with open type assembly usually used for live withdrawal/insertion of fuse-links. Excludes LV board (X-type network) (WM).

### **LV Board (X-type network) (WM)**

Wall-mounted distribution boards with open type assembly usually used for live withdrawal/insertion of fuse-links. Used on interconnected networks with unit type protection.

### **LV Circuit Breaker**

All non-integral Ground mounted Circuit Breakers (both indoor and outdoor) free-standing or part of an LV pillar. This includes LV circuit breakers which terminate large LV services.

### **LV Main (OHL) Conductor**

Open wire or covered conductor (ABC etc) associated with LV overhead lines. This excludes services.

Any associated poles are separately reported.

### **LV Main (UG Consac)**

A specific construction of 3 phase LV underground cable utilising paper insulation and a concentric aluminium neutral/earth sheath. This excludes any other cables design and services.

### **LV Main (UG Plastic)**

Underground cable designs utilising plastic insulation (typically PVC) (eg Waveform etc). This excludes any other cable designs and services.

### **LV Main (UG Paper)**

Underground cable designs utilising paper insulation (eg PILC etc). This excludes any other cables designs and services.

### **LV Network**

The DNO network that operates at voltages of 1kV and below.

### **LV Pillar (ID)**

A free standing or transformer mounted LV cable connection pillar with busbars, circuit protection and isolation facilities located indoors.

## **LV Pillar (OD)**

A free standing or transformer mounted LV cable connection pillar with busbars, circuit protection and isolation facilities located outdoors within or adjacent to a substation and connected directly to the substation distribution transformer.

## **LV Pillars (OD Street Located)**

A free standing LV cable connection pillar with busbars, circuit protection and isolation facilities located outdoors remotely from an HV/LV substation.

## **LV Poles**

Support for LV overhead line constructed of wood, concrete, or steel (includes small footprint steel masts).

## **LV Services**

The service line from the LV distributing main to the DNO's protection device situated upon the customer's premises, but does not include the joint and associated components connecting the service line to the distributing main. It should be noted that incidents on cut-outs and all wiring and equipment after cut-outs, including cut-out fuse operations, are excluded from reporting under the Quality of Service Incentive Scheme (even where this results in the operation of a fuse at the DNO's substation) and the definition of LV Services therefore excludes this equipment.

## **LV Service (OHL)**

A LV overhead line which connects either a street electrical fixture, or no more than four consumers' installations in adjacent buildings, to an overhead main.

## **LV Service (UG)**

An underground cable which connects either a street electrical fixture, or normally no more than four consumers' installations in adjacent buildings (with the exception of looped underground services), to either an LV Underground Main or LV Overhead Main.

## **LVSSA**

A single Low Voltage Demand Connection (other than of a load that could reasonably be expected to cause disruption to other Customers) to single Premises, involving a single-phase connection and no significant work other than the provision of a service line and the Electricity Distributor's fuses.

## **LVSSB**

A Demand Connection (other than of a load that could reasonably be expected to cause disruption to other Customers) via low-voltage circuits fused at 100 amperes or less per phase with whole-current metering, and where the highest voltage of the

assets involved in providing such connection, and any associated works, is Low Voltage, to:

- a development scheme requiring more than one but fewer than five single-phase connections at Domestic Premises and involving only the provision of a service line and the Electricity Distributor's fuses
- a development scheme requiring fewer than five single-phase connections at Domestic Premises and involving an extension of the existing low-voltage network, or
- single Premises requiring a two-phase or three-phase connection and involving only the provision of a service line and the Electricity Distributor's fuses.

## **LV Street Furniture**

Civil works associated with the LV UGB and LV Pillars (OD not at Substation) asset categories. This includes replacement of UGB pavement covers, repairs to UGB structures and civil repairs to LV pillars not involving full replacement of the pillar.

## **LV Systems**

A system that operates at a nominal voltage of 1000V or less.

The upper boundary should be taken as the load-side terminals of the protection equipment connected to the secondary side (low voltage) of distribution transformers. Where the transformer does not have any secondary-side protection equipment, the boundary must be the bolted connection between the transformer tail and the LV busbar. The lower boundary should be taken as the points of connection associated with LV services.

## **LV Transformer/Regulator**

Power Transformer with a primary winding voltage of 1kV and below.

Includes - 1kV reactors & regulators.

## **LV UGB**

An underground LV cable marshalling point with the facilities for the insertion and removal of links.

## **LV Underground Service Transfers**

A refurbishment activity associated with the asset replacement of all types of LV underground cables (ie cable overlays). LV underground service transfers relates to the activity of connecting existing LV underground services to a new LV underground (mains) cable as required when the existing LV underground (mains) cable is the subject of asset replacement.

INCLUDES:

- LV underground service cable installation required to extend the existing LV underground service

- jointing of the new length of LV underground service cable onto the existing LV underground service cable
- jointing of the new length of LV underground service cable onto the new LV underground (mains) cable.

**EXCLUDES:**

- replacement of a complete LV underground service
- any LV service underground service transfers undertaken as part of an unplanned incident on power system voltage equipment that is dealt with via Troublecall.

## **M**

### **Maintenance Period Demand**

The demand level (MVA) experienced at a Transmission Connection Point substation and is the maximum demand level expected during the normal maintenance period. This level is such that the period in which maintenance could be undertaken is not unduly limited. Unless better data is available this should be the level corresponding to demand conditions of 67% of overall group demand (which, for groups supplied through multiple Transmission Connection Point substations, is the total demand at all Transmission Connection Points in the group).

### **Major Incidents and Emergency Planning – see Control Centre**

### **Margin**

For the purpose of Connections reporting, is the Regulated or Unregulated Margin.

#### **Regulated Margin**

The 4 per cent Margin (as allowed and defined in CRC 2K (Margins on licensee's Connection Activities) of the electricity distribution licence that can be charged by the DNO over and above the total cost (direct and indirect costs) (as estimated for the relevant quotation) of completing the Contestable sole use element of a connection placed on the customer quotation in order to recover a margin on this work.

#### **Unregulated Margin**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

For the purpose of Related Party Margin reporting, is the difference between the costs incurred by the Related Party and the charge to the DNO or other body.

### **Margin Included in Quotation Offer**

The level of margin that is applied to the Element of connection that is sole use funded – contestable within the quotation accepted by the customer.

## Market Rent

A charge for property rental based on the rental assessment of the value of the premises on the open market and not actual payments made under the lease.

## Market Segments

The nine Market Segments specified in CRC 2K (Margins on licensee's Connection Activities) of the electricity distribution licence where it is possible to charge a Regulated or Unregulated Margin.

- In respect of Metered premises owned or occupied by Demand Customers:
  - LV work: low voltage Connection Activities involving only low voltage work, other than in respect of Excluded Market Segments
  - HV work: low voltage or high voltage Connection Activities involving high voltage work (including where that work is required in respect of Connection Activities within an Excluded Market Segment)
  - HV and EHV work: low voltage or high voltage Connection Activities involving extra high voltage work
  - EHV work and above: extra high voltage and 132kV Connection Activities.
- In respect of Metered premises in which the connection involves the connection of Relevant DG:
  - LV work: low voltage Connection Activities involving only low voltage work
  - HV and EHV work: any Connection Activities involving work at high voltage or above.
- In respect of unmetered premises:
  - LA work: new Connection Activities in respect of local authority premises
  - PFI work: new Connection Activities under private finance initiatives
  - Other work: all other non-local authority and non-PFI unmetered connections work.

It is not possible to charge a Margin on Excluded Market Segments (see definition).

## Marshalling kiosk - see Substation RTU, Marshalling Kiosk and Receivers

## Material Change

A change (from forecast) identified by the DNO during the price control period, and reported under the Secondary Deliverables RIGs, and discussed with Ofgem. A Material Change is a change that the DNO considers is likely to have a material impact on its performance against the Network Asset Secondary Deliverables.

A Material Change can fall into one of the following categories:

- a) changes to input data
- b) changes to the assessment technique/calculation methodology

Changes to input data may be due, (but are not limited), to:

- changes arising from implementation of the Common Network Asset Indices Methodology (this does not include the full changes made as part of DNOs' submission of their Rebased Network Asset Secondary Deliverables)
- other exogenous changes in data (eg due to a type fault identified)
- unexpected changes in data (eg asset health degradation being better or worse than forecast)
- a conscious business decision regarding the data collection methodology which causes a change in data accuracy for the relevant measure.

Changes to the assessment technique/calculation methodology may be due, (but are not limited), to:

- changes arising from implementation of the Common Methodology
- development of innovative (condition) assessment techniques
- changes to asset degradation assumptions
- a conscious business decision regarding key data requirements

## Materials

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type.

The physical components that go into the make-up of a tangible asset or are used for maintenance or other duties by the licensee and related parties when undertaking activities.

INCLUDES:

- tangible items that become part of the network assets
- small tools, equipment and consumables utilised to allow work on the network and to undertake other activities
- purchase, rent or lease of vehicles (only where they are "non-operational assets")
- fuel for the operational fleet (include under the Vehicles and Transport (CAI))
- materials provided by a contractor where the costs have been separately identified
- delivery costs of materials or stock to stores or site from the manufacturer/supplier
- postage and stationery.

EXCLUDES:

- company cars
- procurement management
- delivery costs from stores to another stores or to site
- storage of the materials, unless the purchase price includes the cost of storage by the supplier.

## Medium CHP ( $\geq 5\text{MW}$ , $< 50\text{MW}$ )

A category of DG. Electricity generation using a combined heat and power plant, of size 5MW and over, but less than 50MW.

## Meshing (Permanent)

As featured in the transform model developed through the smart grids forum, the converting the operation of the network from a radial feeder or ring (with split points) to a solid mesh configuration.

## Meshing (Temporary)

As featured in the transform model developed through the smart grids forum, this refers to running the network solid, utilising latent capacity, and relying on the use of automation to restore the network following a fault.

## Metered Connection Category

The reporting categories required for each metered Connection Project as listed below. Each Connection Category will map to one of six Market Segments specified in CRC 2K (Margins on licensee’s Connection Activities) of the electricity distribution licence.

	<b>Metered Connection Category</b>	<b>Market Segments specified in CRC 2K</b>
1	LV metered DPCR4 Connection Projects	Excluded
2	HV metered DPCR4 Connection Projects	Excluded
3	EHV metered DPCR4 Connection Projects	Excluded
4	132kV metered DPCR4 Connection Projects	Excluded
5	Single service LV connection	Excluded
6	Small project demand connection (LV)	Excluded
7	All other LV (with only LV work)	(i) LV work: low voltage Connection Activities involving only low voltage work, other than in respect of Excluded Market Segments.
8	LV end connections involving HV work	(ii) HV work: low voltage or high voltage Connection Activities involving high voltage work (including where that work is required in respect of Connection Activities within an Excluded Market Segment).
9	HV end connections involving only HV work	(ii) HV work: low voltage or high voltage Connection Activities involving high voltage work (including where that work is required in respect of Connection Activities within an Excluded Market Segment).
10	LV end connections involving EHV work	(iii) HV and EHV work: low voltage or high voltage Connection Activities involving extra high voltage work.

11	HV end connections involving EHV work	(iii) HV and EHV work: low voltage or high voltage Connection Activities involving extra high voltage work.
12	EHV end connections involving only EHV work	(iv) EHV work and above: extra high voltage and 132kV Connection Activities.
13	HV or EHV connections involving 132kV work	(iv) EHV work and above: extra high voltage and 132kV Connection Activities.
14	132kV end connections involving only 132kV work	(iv) EHV work and above: extra high voltage and 132kV Connection Activities.
15	DG connection at LV involving LV assets only	(v) LV work: low voltage Connection Activities involving only low voltage work.
16	DG connection at any voltage where HV is the highest voltage worked on	(vi) HV and EHV work: any Connection Activities involving work at high voltage or above.
17	DG connection at any voltage where EHV is the highest voltage worked on	(vi) HV and EHV work: any Connection Activities involving work at high voltage or above.
18	DG connection at any voltage where 132kV is the highest voltage worked on	(vi) HV and EHV work: any Connection Activities involving work at high voltage or above.

### **Metered Quotations standards**

The following standards - ECGS 1A, 1B, 2A, 2B, 3A, 3B and 3C. These, measured quarterly, in aggregate have a 90% performance standard set in Standard Condition 15A (Connection Policy and Connection Performance) of the electricity distribution licence.

### **Metering Equipment**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

### **Metering Services – see DRS6. Metering Services**

### **Micro CHP (domestic)**

A category of DG. Electricity generation using a combined heat and power plant on a domestic premise.

### **Mini CHP (<1MW)**

A category of DG. Electricity generation using a combined heat and power plant, of size less than 1 MW, but excludes Micro CHP (domestic) generation.

### **Miscellaneous Repairs/Safety Repairs (SM)**

Additional repair work carried out by a DNO as part of the Smart Meter roll-out, not covered in any other reporting category.



## **Modelling Assets**

Utilising optimisation tools and techniques to maximise the use of assets and forecast performance in future years. The modelling should take into account risk and likelihood of failure of particular assets, the impact and consequences. DNOs will use the outputs from network modelling to inform decisions and develop network operating plans.

## **Modern Equivalent Asset Value (MEAV)**

The value of a modern asset with the same service capability as an existing asset.

## **Monetised Risk**

The measure derived from a combination of the Probability of Failure of network assets, and the Consequences of Failure of these network assets which is used to determine DNOs' progress against their Secondary Deliverables targets for RIIO-ED1.

## **MPANs/Points of Connection Adopted From ICPs**

MPANs/points of connection which are obtained by the DNO by making adoption payment to the ICP owner of the relevant assets.

## **Multiple Circuit**

Two or more circuits of the same construction voltage at HV or above which are laid in close proximity and would be expected to be installed in a common trench, set of ducts or tunnel.

A dual circuit refers to two circuits, which is the most common multiple circuit arrangement.

## **Multiple Unit Fault**

For the purposes of unmetered connections, means a fault which is affecting more than one unit of street lighting or other unmetered supplies. This may be by virtue of their being privately fed units fed from a lamp that is serviced by the Electricity Distributor.

## **MVA (Mega volt amperes)**

Volt-ampere is a unit of electric power equal to the product of one volt and one ampere, equivalent to one watt power is a unit used for measuring apparent power.

## **Multi-Storey**

A high rise flat of five storeys or more with a lift.

## MWh

Megawatt hours (1,000,000 Watt hours).

## N

### **NABC - Any Other Ex-Gratia/Goodwill Compensation Payments**

Cash payments to customers who have experienced dissatisfaction but where no formal standard exists in either The Electricity (Standards of Performance) Regulations 2015, or The Electricity (Connection Standards of performance) Regulations 2015, or Distributed Generation Standards Direction issued under Standard Condition 15A. For example, for Interruptions of 11h 59min, multiple Interruptions falling short of multiple Interruption standard, etc. This also includes cash payments made to customers where a formal standard exists and the DNO pays more than the formal standard requires (eg if the formal standard requires a £75 payment and the DNO pays £100, £75 should be reported as a NABC - GS Compensation Payments and the other £25 as NABC - Any Other Ex-Gratia/Goodwill Compensation Payments).

EXCLUDES:

- cash payments to customers who have experienced a financial loss (report as Insurance in the Core Business Support table (as they relate to third party claims paid out by the DNO)
- any payments in respect of employees.

### **NABC - Bad Debt Expense (Net of Recoveries)**

The charge/credit to the profit and loss account (income statement under IAS) for bad and doubtful debts.

INCLUDES:

- debts written off or a provision against non-recovery
- debts recovered after they have been written off.

EXCLUDES:

- the cost of debt recovery (include under Finance and Regulation).

### **NABC - Carbon Reduction Commitment Scheme**

The government scheme which was established to incentivise companies to reduce their energy usage and therefore their carbon emissions. The costs incurred by DNOs each year relate to the purchase of carbon allowances equivalent to the amount of carbon emitted as a result of business energy use.

## **NABC - Connections Guaranteed Standards of Performance Compensation Payments**

Payments to customers made under The Electricity (Standards of Performance) Regulations 2015.

## **NABC - Contingent Pension Asset Costs**

The cost incurred by sponsor(s) of a defined benefit pension scheme in providing a contingent asset to support pension scheme technical provisions or a recovery plan. These costs should only include costs paid by the licensee and other pension scheme co-sponsors.

## **NABC - Cost of Items Sold**

The gross cost before charging depreciation recorded as a fixed asset prior to sale/disposal of specific asset.

## **NABC - Depreciation**

Included as part of NABC Profit/Loss on Disposal of Fixed Assets calculation. The cumulative depreciation charged against fixed assets at point of sale/disposal of specific asset.

## **NABC - DG Network Unavailability Rebate Payments**

Payments made to Generator Customers (HV & above) due to a failure of Distribution Network. Failure payments made to LV Generator Customers are reported under guaranteed standards of performance compensation payments.

## **NABC - Distributed Generation Standards Direction issued under Standard Condition 15A**

Payments to customers made under the Distributed Generation Standards Direction issued by Ofgem under Standard Condition 15A (Connection Policy and Connection Performance) of the electricity distribution licence.

## **NABC - Ex-Gratia Compensation Payments**

Payments made by a DNO to a customer in lieu of a payment that the customer would have been entitled to under The Electricity (Standards of Performance) Regulations 2015 had the customer chosen to do so.

## **NABC - Ex-Gratia Compensation Payments (Connections)**

Payments made by a DNO to a customer in lieu of a payment that the customer would have been entitled to under The Electricity (Standards of Performance) Regulations had the customer chosen to do so.

## **NABC - Ex-Gratia Compensation Payments (Distributed Generation Standards Direction issued under Standard Condition 15A)**

Payments made by a DNO to a customer in lieu of a payment that the customer would have been entitled to under Distributed Generation Standards Direction issued under Standard Condition 15A had the customer chosen to do so.

## **NABC - GS Compensation Payments**

Payments to customers made under The Electricity (Standards of Performance) Regulations 2015.

## **NABC - Net Sale Proceeds**

Sale proceeds received less sale expenses incurred on disposal of a specific fixed asset.

## **NABC - Non Activity Based Costs**

Costs incurred by DNOs that do not relate to the Direct and Indirect Activities contained in RIGs and commonly referred to as NABC.

Includes the following which are defined separately in this glossary, under the prefix NABC:

- Any Other Ex-Gratia/Goodwill Compensation Payments
- Bad Debt Expense (net of recoveries)
- Carbon Reduction Commitment Scheme
- Connections Guaranteed Standards of Performance Compensation Payments
- Contingent Pension Asset Costs
- DG Network Unavailability Rebate Payments
- Distributed Generation Standards Direction issued under Standard Condition 15A
- Ex-Gratia Compensation Payments
- Ex-Gratia Compensation Payments (Connections)
- Ex-Gratia Compensation Payments (Distributed Generation Standards Direction issued under Standard Condition 15A)
- GS Compensation Payments
- Pensions Established Deficit Repair Payments
- Profit/Loss on sale of Fixed Assets and Scrap.

EXCLUDES:

- Pass-Through Costs.

## **NABC - Pensions Established Deficit Repair Payments – see Pension Scheme Established Deficit**

### **NABC - Proceeds of Sale of Non-Operational Assets**

The net sale proceeds of all non-operational assets sold.

### **NABC - Proceeds of Sale of Operational Assets**

The net sale proceeds of all Operational (Network) assets sold.

### **NABC - Proceeds From Sale of Scrap**

The net sale proceeds of scrap sold.

### **NABC - Profit/Loss on Disposal of Fixed Assets**

The net sale proceeds less the net book value of any asset sold.

### **NABC - Profit/Loss on Sale of Fixed Assets and Scrap**

The net sale proceeds less the net book value of any asset sold, plus any proceeds received from the sale of scrap.

### **National Parks**

Has the meaning given to it in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

### **National Scenic Areas**

Has the meaning given to it in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

### **Net Debt**

The net borrowing of a business at a given date.

INCLUDES:

- cash at bank
- bank overdrafts
- short term investments
- external borrowings (adjusted to reflect the ultimate liability in sterling resulting from any cross currency swaps relating to that debt instrument and excluding the impact of fair value adjustments and accrued interest).
- inter-company borrowings
- short term loans to related parties (except where they have demonstrated the characteristics of being long term in nature, for example by repeated renewal)
- long term loans to related parties only where they can be justified as for the benefit of the regulated business and are not in the nature of a distribution.

Inter-company debtors/creditors/working capital: where these can clearly be identified as such, they are excluded. However, if they cannot, because the licensee does not clear these balances on a regular basis, they will be treated as effective intercompany loans and included in net debt.

**EXCLUDES:**

- year end balances of fair value adjustments on derivatives in regulatory accounts (except cross currency swaps)
- unamortised issue costs
- fixed asset investments where not readily converted to cash
- preference shares
- long term loans to related parties except where they can be demonstrated as for the benefit of the regulated business and are not in the nature of a distribution
- short term loans to related parties except where they have characteristics of long term loans.

## **Net Interest**

Actual net interest (payable less receivable) for the price controlled business extracted from regulatory accounts, used on an accruals basis and total interest on index-linked debt based on the charge to the income statement in regulatory accounts.

**INCLUDES:**

- actual net interest (payable less receivable) for the price controlled business extracted from regulatory accounts, used on an accruals basis
- interest on index-linked debt based on the charge to the income statement in regulatory accounts (ie on an accruals basis) .

**EXCLUDES:**

- any interest that would otherwise be included, but which does not qualify for corporation tax relief
- movements relating to pension fund liabilities reported in the regulatory accounts within net interest
- fair value adjustments (eg losses on derivatives)
- dividends on preference shares
- the cost of retiring long term debt early (including exceptional debt redemption costs)
- debt issuance expenses (including amortisation charges relating to discounts on debt issuance that had previously benefitted from a deduction against taxable profits)
- the cost of maintaining committed undrawn liquidity backup lines (ie commitment fees).

## **Network Asset Indices**

Indices relating to asset health, criticality and risk, as defined for the RIIO-ED1 period in Standard Condition 51 (Network Asset Indices Methodology) of the electricity distribution licence.

## Network Assets

Operational network assets (excluding metering related costs) recorded in balance sheet as fixed assets, which are subsequently sold/disposed.

### Network Asset Secondary Deliverables

Secondary Deliverables relating to asset health, criticality and risk, as defined for the RIIO-ED1 period in Standard Condition 51 (Network Asset Indices Methodology) of the electricity distribution licence.

### Network Assets Workbook

The Microsoft® Excel 2010 workbook, part of the electricity distribution licence, which contains worksheets setting out the Network Asset Secondary Deliverables for RIIO-ED1.

## Network Design & Engineering

A Closely Associated Indirect activity included in the Core CAI worksheet.

Network Design and Engineering activity falls into two main categories:

- development of high level plans that facilitate the economic development of the distribution network
- specific planning and design necessary for individual projects.

### **Development of high level plans that facilitate the economic development of the distribution network includes:**

- Maintenance of network design data models
- Network-wide demand forecasting
- Systematic identification of network design deficiencies (eg network modelling and analysis to identify of the need to undertake general or fault level reinforcement on 132kV & EHV networks)
- Preparation of long term development statements
- Network Modelling associated with determination of Use of System Charges.

### **Specific planning and design of individual projects includes:**

- Connection Projects
- Load forecasting
- Network modelling
- Network and engineering design of the network to accommodate Connection Projects, specific changes in either demand or distributed generation and all aspects of the “non-load new and replacement asset installation” activity
- Provision of connection charge quotations
- Approval of network designs undertaken by other parties, such as independent connection providers, IDNOs and related parties
- The surveying of a specific overhead line in order to identify the detailed work required to address an identified problem/issue

- The determination of land profiles to select the routes and pole sizes for new or replacement lines
- The surveying associated with new and existing operational sites in order to identify detailed work requirements
- Network performance monitoring and evaluation of impact of salient policies
- Planning and design of Connection Projects including those which do not progress beyond the enquiry stage
- Planning new projects up to the point of authorisation.

Network Design and Engineering excludes:

- The surveying, patrolling or inspection of system assets to collect condition information (include in Inspection and Maintenance)
- Any IT or property costs relating to Network Design & Engineering (include in IT&T and Property Management Indirect Activities).

### **Network Innovation Allowance (NIA)**

Has the meaning given to it in CRC 2H (The Network Innovation Allowance) of the electricity distribution licence.

### **Network Investment**

Includes all costs associated with the following activities:

- Load Related Expenditure
- Non-load related capex (excluding non-op capex)
- Standalone funding (RAV).

### **Network Operating Costs**

Collectively includes the activities of:

- Faults
- Severe Weather 1-in-20 Events
- Occurrences not incentivised (ONIs)
- Tree Cutting
- Inspections
- Repair & Maintenance
- Dismantlement
- Substation Electricity
- Remote Location Generation Operating Costs
- Smart Metering Roll-Out.

### **Network Outputs Revenue Adjustment**

Financial amendment to the DNO's revenue following the conclusion of the Network Outputs assessment for DPCR5.

### **Network Policy**

A Closely Associated Indirect activity included in the Core CAI worksheet.



This activity consists of the development and review of environmental, technical and engineering policies, including all research and development apart from any defined as NIA (see exclusions).

**INCLUDES:**

- evaluating the impact of changes in relevant legislation
- development, regular review and updating of engineering policies, such as those for:
  - Asset inspection
  - Asset maintenance
  - Asset replacement
  - Asset risk management
  - Technical standards and specifications
  - Plant, equipment and component specifications
  - Vegetation management
  - Network design and protection
- analysis and interpretation of asset condition data, for the purpose of informing the process of improving policies
- development, regular review and updating of the environmental policy
- research and development (inc. Fees paid to research and development organisations, such as EATL).

**EXCLUDES:**

- NIA related research and development
- development, review and updating of Health and Safety policies (include under Engineering Management and Clerical Support)
- development, review and updating of policies relating to industrial and employee relations (include under HR & Non Operational Training).

## **Network Regulation**

Any reasonable costs associated with network regulation, ie any costs that the network company would not reasonably have incurred were it operating in a non-regulated environment.

## **New Transmission Capacity Charges (NTCC)**

Transmission Connection Point Charges that are specifically related to a licensee requirement for new or reinforced TCPs that are energised after 1 April 2015.

## **New Types of Circuit Infrastructure**

As featured in the transform model developed through the smart grids forum, the deployment of new, higher capacity circuit infrastructure, incorporating modern conductor types and designed in a way to minimise electrical resistance and reactance.

## **New Works**

In relation to unmetered connections, it includes new connections to existing mains, service transfers and disconnections.

## **NHHSCP (Non-half-hourly Settled Connection Point)**

A connection point that, in accordance with the BSC, is registered in SMRS as having a Non Half Hourly Metering System (which may include an Equivalent Meter). Energy may enter or exit the Distribution System at a Non-half-hourly Settled Connection Point.

## **NIC Funding**

Has the meaning given to it in CRC 5A (The Network Innovation Competition) of the electricity distribution licence.

## **NIC Royalties**

Royalties earned with through NIC projects.

## **Noise Pollution**

The activity of investigating reports of noise pollution, and consequential remedial works (if necessary). In this context, noise pollution is defined as levels of noise associated with the normal operational characteristics of electrical Distribution Assets that may be deemed to be a nuisance and subject to Part III of the Environmental Protection Act 1990 (EPA).

## **Non Activity Based Costs – see NABC – Non Activity Based Costs**

## **Non-Contestable**

Connections work that can only be carried out by the host DNO/licence holder.

## **Non-Damage Incident**

Any unplanned incident where supply can be restored from the original source by network switching and without the need for the repair of equipment. For example:

- the remote or manual operation of a pole mounted auto recloser that had previously completed its duty cycle and locked out, to restore supplies, is regarded as network switching
- the changing of a blown LV fuse in an LV feeder pillar is regarded as network switching and is therefore not considered to be a repair of equipment
- the removal of trees from an otherwise healthy overhead line is not considered to be the repair of equipment.

## **Non-DNO Connection Point**

A connection point between two licensed Electricity Distributors, where one of the Electricity Distributors is not a DNO (eg they are an Independent Distribution Network Operator (IDNO)).

## **Non-DUoS**

Revenues and related cost in generating those revenues that are not remunerated by charges from the operation of CRC 2A (Restriction of Allowed Distribution Network Revenue) of the electricity distribution licence, specifically in the Revenue and Financial Issues Reporting Pack the PU term in Part C of that condition for attributing and reporting costs and tax data analysis.

## **Non-Embedded BMU**

A BMU that is not an Embedded BMU Connection Point.

## **Non-Embedded DCSP**

A DCSP that is not an Embedded DSCP.

## **Non-Firm Contracts**

Contracts where the DNO has an agreement with the customer, such that during an Interruption to this customer they will have part/all of their supplies subject to potentially delayed restoration, eg non-firm supply. Interruptions and minutes lost due to these contracts before firm load is restored do need to be reported, and Clock Stopping can be used.

## **Non-Load Related Capex – Asset Replacement**

This is PCFM Cost Type, which reports the costs of the following activities, with the exception of Pensions costs (which are reported in the 100% 'revenue pool' expenditure):

- Diversions (Excluding Rail Electrification)
- Diversions (Rail Electrification)
- Asset Replacement
- Refurbishment No SDI
- Refurbishment SDI
- Civil Works Condition Driven
- Black Start
- Legal and Safety
- QoS and North of Scotland Resilience
- Flood Mitigation
- Physical Security
- Rising and Lateral Mains (RLMs)
- Overhead Line Clearances
- Losses
- Environmental
- Moorside (ENWL only).

## Non-Load Related Capex – Other

This is PCFM Cost Type, which reports the costs of the following activities, with the exception of Pensions costs (which are reported in the 100% 'revenue pool' expenditure):

- Operational IT and telecoms
- BT21CN
- Worst Served Customers (WSCs)
- Visual Amenity
- IT and Telecoms (Non-Operational)
- Property (Non-Operational)
- Vehicles and Transport (Non-Operational)
- Small Tools, Equipment, Plant and Machinery (Non-Operational) (STEPM)
- Less: Cash proceeds from sale of assets and scrap.<sup>4</sup>

## Non Load Related Investment

The installation of new assets and the planned installation of replacement assets for reasons other than load-related reasons.

## Non-Operational Assets

Assets which are not system assets.

INCLUDES:

- Vehicles and Transport (Non-Operational)
- Small tools, equipment, plant and machinery (Non-Operational) (STEPM)
- Property (Non-Operational)
- IT & Telecoms (Non-Operational).

EXCLUDES:

- System assets
- Company cars (except where included under the labour cost).

## Non-Operational Capex

Expenditure on new and replacement Non-Operational Assets which are not system assets.

INCLUDES:

- IT & telecoms (non-operational)
- Non-Operational Property
- Non-operational vehicles
- Small tools, equipment, plant and machinery.

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<sup>4</sup> This does not apply to Western Power Distribution owned DNOs.

## **Non-Operational Staff**

Employed by the DNO or Related Party and does not meet definition of Craftsperson, Engineer or Other Operational Employee.

## **Non-Operational Training**

The provision of training to non-operational staff (defined separately in the glossary), regardless of whether this training is to support operational or non-operational activities.

INCLUDES:

- all costs of providing non-operational and operational training courses to non-operational staff (including training non-operational staff for standby activities).

EXCLUDES:

- time of employees attending training (include as labour cost under the relevant activity of that employee)
- IT and property management costs of operating a training centre (include under IT and property for non-operational training and within Operational Training for operational training).

## **Non-Technical Losses**

Electricity units lost for non-physical reasons, including theft and measurement inaccuracy.

## **Non Trading Rechargeables (NTRs)**

Are defined as DRS2 and DRS3.

INCLUDES:

- The dismantlement of network assets (at all voltage levels) where new assets are being installed as part of an NTR project (including service alterations).
- The dismantlement of network assets (at all voltage levels) at the request of a third party and where the cost of dismantlement is chargeable to the third party.
- Short term de-energisation (and subsequent re-energisation) of a metering point, at the customer's request, in order to allow customer to undertake work on their own electrical installation. The physical work undertaken by the DNO would typically be the removal and subsequent re-installation of a cut out fuse.
- Dismantling services to street lighting at the request of a third party and where the cost is wholly or partially chargeable to a third party.

## **Non-Undergrounding Visual Amenity Schemes**

Schemes undertaken to reduce the visual impact on the landscape of Distribution Assets other than undergrounding of overhead lines. These may include re-siting or

modifying of assets where the driver for the activity is reducing visual impact. The visual amenity activity does not include any works undertaken as a consequence of wilful interference with the appearance of DNOs' assets, eg graffiti on substations.

### **Non-Variant Costs**

Costs which are not subject to uncertainty mechanisms.

### **North of Scotland Resilience Schemes**

The costs reported against these schemes are related to specific named schemes that are being undertaken in SHEPD during RIIO-ED1. These schemes will focus on delivering significant improvements in the Interruptions experience of the worst served customers served on specific circuits in SHEPD. These schemes will be undertaken in the following four areas: Western Isles - Barra, Argyll and Bute - Islay, Argyll and Bute – Mull, and Orkney – Sanday.

### **NRSA - New Roads and Street Works Act (1991)**

## **O**

### **O&M Charges**

Ongoing operation and maintenance costs paid for by the connecting party within a connection offer.

### **Occurrences Not Incentivised (ONIs)**

Any occurrence logged on the enquiry service operated by the licensee under Standard Condition 8 (Safety and Security of Supplies Enquiry Service (SSSES)) which is not an incident and which is not as a result of being identified during the installation of, or attempted installation of, a Smart Meter.

In some limited cases, DNOs may use alternative systems for the management of non-urgent activities which are equivalent to those reported through the SSSES. For example urgent street lighting faults may be managed through the SSSES, but less urgent faults could be managed through a different work programming system.

ONIs are recorded in two categories, which are defined in this glossary (under the prefix "ONI"):

- Power System Voltage Equipment / No Unplanned Incident
- Other Occurrences (Not Affecting Power System Voltage Equipment).

### **Occurrences Not Requiring Site Visits**

A Troublecall occurrence resolved or closed without requiring a site visit. Excludes occurrences reported as Meters or Abortive Visits. The volumes are reported under the Interruptions RIGs (Annex F) not in the Costs and Volumes RIGs (Annex B).

## **Offshore Wind**

A category of DG. Electricity generation using a wind turbine situated offshore.

## **OH Clearance Sites**

A span of overhead line that has one or more instances of non-compliance with the Electricity Supply Quality & Continuity Regulations (2002) (as amended) regulations 17 and 18, for vertical and horizontal clearances respectively.

Where a span of overhead line has more than one non-compliance issue it will only be counted once. For the avoidance of doubt this also means that where a span has both horizontal and vertical clearance issues then this will be counted as one Overhead Clearance Site.

Two adjacent spans of overhead line, each of which has one or more instances of non-compliance will be counted as two Overhead Clearances Sites. This applies even where the reason for the non-compliance is the same for both spans (for example where a building has been built next to two spans of overhead line).

## **OH Horizontal or Vertical Clearance - Outstanding Sites to Be Resolved**

Overhead Clearance Sites where activities to deal with non-conformance issues with Electricity Supply Quality & Continuity Regulations (2002) (as amended) regulations 17 and 18 have not been undertaken and the Overhead Clearance Site therefore remains unresolved at the end of the regulatory reporting year.

## **OH Horizontal or Vertical Clearance - Sites Identified In Year**

The additional Overhead Clearance Sites that have been identified during the Regulatory Year, which are not already included in the previous year's OH Horizontal or Vertical Clearance - Outstanding Sites to Be Resolved.

Such additional sites may arise, for example, where buildings are erected close to overhead lines, where ground levels are changed as a result of roadworks or due to improved measurement techniques.

Where these additional Overhead Clearance Sites are resolved during the Regulatory Year, they should still be included in the overall volume of sites identified in the year to illustrate the scale of additional issues that are being identified.

There may be occasions where sites that were previously classified as being non-compliant are reassessed and deemed to be compliant. Since no work has been carried out, they should be entered as a negative count against the overall volume of sites identified in the year.

## **OH Horizontal or Vertical Clearance - Sites Resolved**

Overhead Clearance Sites where all non-compliance issues with Electricity Supply Quality & Continuity Regulations (2002) (as amended) regulations 17 and 18 have been resolved during the reporting year.

For sites with more than one non-compliance issue, all issues need to be resolved to classify the Overhead Clearance Site as being resolved.

Sites that were previously classified as being non-compliant but are reassessed and deemed to be compliant should not be classified as being resolved. Since no work has been carried out, they should be entered as a negative count against OH Horizontal or Vertical Clearance - Sites Identified in Year.

### **OH Horizontal or Vertical Clearance – Sites Resolved As Part of Other Work**

Overhead Clearance Sites where all non-compliance with Electricity Supply Quality & Continuity Regulations (2002) (as amended) regulations 17 and 18 have been resolved as a by-product of work undertaken for other reasons. For example changes to non-compliant overhead line as part of a general reinforcement project.

### **OHL (Overhead Lines)**

Any electric line which is placed above ground and in the open air. This excludes that part of an underground cable running above ground for the purpose of termination with overhead lines.

### **OHL Inside Designated Areas at End of Reporting Year (km)**

The total circuit length of overhead lines in commission at the end of each reporting year (31 March) within Designated Areas.

### **OHL (km) Removed During Year**

The length of overhead line (km) that has been removed under the Visual Amenity Allowance scheme provided for under CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

### **Oil in Service in Cables**

Total volume of oil present fluid-filled cables in commission at the end of the reporting year, measured in fluid litres.

### **Oil Pollution Mitigation Scheme - Cables**

Scheme undertaken where the primary objective is to reduce or remove the risk of discharging insulating oil from pressurised fluid filled underground cables into the environment.

### **Oil Pollution Mitigation Scheme - Non Operational Sites**

Scheme undertaken where the primary objective is to reduce or remove the risk of discharging insulating oil into the environment at non-operational sites such as oil storage facilities at depots.



## **Oil Pollution Mitigation Scheme - Operational Sites**

Scheme undertaken where the primary objective is to reduce or remove the risk of discharging insulating oil into the environment at operational sites.

### **ONI – see Occurrences Not Incentivised**

### **ONI - Abortive Visits - No Immediate Work Required**

An ONI that does not affect DNO's power system voltage equipment.

An ONI, where, following a site visit, it is identified that no immediate action is required. For example, this includes where a site visit identifies that:

- no incident or permanent fault exists (eg a report of low overhead line that was found to be a telecommunication line or where customers are found to be on supply)
- the issue relates to third party apparatus (eg the cause of a loss of supply was found to be on customer's equipment or the customer's trip switch has operated)
- the issue relates to metering equipment.

This category also relates to all occurrences relating to abandoned, decommissioned or unenergised equipment where no repair or remedial work is undertaken. Site visits that identify that the issue relates specifically to metering equipment are included in this category.

It excludes occurrences which are identified during the installation of, or attempted installation of, a Smart Meter.

### **ONI - Asset Repairs Instigated by Troublecall**

An ONI that affects Power System Voltage Equipment.

An ONI that affects power system voltage equipment that is not categorised as an Incident, but is resolved by repair or remedial works to DNO assets. The following are typical examples:

- Refix a wall bracket
- Repair a stay wire
- Pot-end an abandoned cable
- Reclip cables to a wall
- Remove tree/branches from an overhead line
- Earth wire repairs
- Conductors re-sagged.

It includes repair or remedial works to abandoned, decommissioned or unenergised equipment.

### **ONI - Cut Out Fuses Only (Metered Services)**

An ONI that affects Power System Voltage Equipment.

An ONI, that affects fuses at a cut out which is associated with a metered LV service connection (eg where a fuse has operated and requires to be changed).

It excludes occurrences which are identified during the installation of, or attempted installation of, a Smart Meter.

### **ONI - Cut Outs (Metered Services)**

An ONI that affects Power System Voltage Equipment.

An ONI that affects a cut out which is associated with a metered LV service connection.

It excludes occurrences relating to fuses at metered cut outs.

*It excludes occurrences which are managed outside of the DNOs Safety and Security of Supplies Enquiry Service (these are reported under ONI – Cut Outs (Metered Services) – non safety and security of supply enquiry).*

It excludes occurrences which are identified during the installation of, or attempted installation of, a Smart Meter.

### **ONI - Cut Outs (Metered Services) – non safety and security of supply enquiry**

Suppliers and meter operators provide details of defective service position equipment. These defects are classified in three categories (category A – urgent defects, Category B – defects which prevent meter related work, Category C – other defects). It is anticipated that DNOs will manage these defects in different ways with both category A and B being reported under ONIs (Category C will inform replacement programmes). Whilst Category A urgent defects will be routed through DNOs Safety and Security of Supplies Enquiry Service, other systems may be used to manage Category B defects. This reporting requirement records those Category B defects that are managed in other DNO systems.

It excludes occurrences which are identified during the installation of, or attempted installation of, a Smart Meter.

### **ONI - Cut Outs (Metered Services) – Prior year Adjustment due to Smart Meter Roll-Out**

It is recognised that a proportion of cut out defects classified as ONIs will require to be reclassified as being associated with the Smart Meter roll-out. This arises because supplier and meter operator data flows do not identify that defects are associated with the Smart Meter roll-out and there is a delay between when DNOs rectify a defect and when this can be associated with a Smart Meter. The delay may be several months and therefore an adjustment is required to previously stated volumes and costs. This adjustment relates to the volume of defects carried out in one Regulatory Year which have been associated with Smart Meters in the following year. For example it may not be possible to assign a defect carried out in 2015/16 with the Smart Meter roll-out until 2016/17. Where the volume of ONIs has decreased, the adjustment should be shown as a negative value (there will be a corresponding positive adjustment in Smart Meter Interventions).

## **ONI - Emergency Disconnections**

An ONI that affects Power System Voltage Equipment.

An ONI, where the DNO urgently disconnects the electricity supply to a property with a metered supply in order to prevent danger. For example, this may be at the request of emergency services.

## **ONI – Other Occurrences (Not Affecting Power System Voltage Equipment)**

This is a reporting sub-category of Occurrences Not Incentivised

It is used for the reporting of those Troublecall occurrences which are not associated with power system voltage equipment. These may require DNOs to investigate a situation or deal with a safety concern.

The reporting is disaggregated into the following which are separately defined (under the prefix “ONI”):

- Abortive Visit - No Immediate Work Required (includes meters which in DPCR5 was a separate reporting category).
- Responding to Critical Safety Calls.
- Pilot Wire Failures.

## **ONI - Pilot Wire Failures**

An ONI that does not affect DNO's power system voltage equipment.

An ONI, relating to the failure of a pilot wire circuit, which does not result in the disconnection of a circuit or item of equipment energised at power system voltage.

## **ONI - Power System Voltage Equipment / No Unplanned Incident**

This is a reporting sub-category of Occurrences Not Incentivised

It is used for the reporting of unplanned occurrences which affect assets and which are not classified as incidents under the Interruption Incentive Scheme and which are not as a result of being identified during the installation of, or attempted installation of, a Smart Meter.

For each occurrence, it includes the site investigation and repair that results in a permanent restoration (or what could be considered to be a permanent restoration) of the asset back to its former availability and, if applicable, the restoration of supply.

The reporting is disaggregated into:

- Emergency Disconnections (see definition)
- Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs (including unmetered cut out fuses) (see definition)
- Cut Outs (Metered Services) (see definition)
- Cut Out Fuses Only (Metered Services) (see definition)
- Asset Repairs Instigated By Troublecall (see definition).

## **ONI - Responding to Critical Safety Calls**

An ONI that does not affect DNO's power system voltage equipment, where site attendance is required to secure a DNO site or equipment, or remove danger.

It includes closing substation doors/gates and attention to traffic lights (not associated with Street Works), barriers and boards associated with Street Works and also site visits for guidance.

An ONI that requires further investigation/action (eg issues associated with voltage fluctuations, flickering lights or low voltage) whereby remedial work is undertaken.

## **ONI - Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs**

An ONI that affects Power System Voltage Equipment.

DNOs should only include all faults associated with unmetered supplies that are managed through the Safety and Security of Supplies Enquiry Service.

Unmetered supply covers for example street lighting, traffic lights not associated with Street Works, telecommunication kiosk and advertising hoarding. The faults covers occurrences associated with unmetered cut outs, fuses at unmetered cut outs and the service/mains cables to unmetered cut outs.

## **ONI - Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs non safety and security of supply enquiry**

For faults associated with unmetered supplies that are not managed through the Safety and Security of Supplies Enquiry Service.

## **Onshore Wind**

A category of DG. Electricity generation using a wind turbine situated onshore.

## **Operational Activities to Manage Losses**

Operational activities undertaken where the primary driver is managing distribution losses. For example, actions to tackle theft in conveyance.

## **Operation and Maintenance Costs for DG**

The actual costs incurred for operations and maintenance of assets associated with DG subject to Use of System Charges in the Reporting Year. Including directly attributable costs associated with the operation and maintenance of the assets that have been included in the total capex for DG in the Regulatory Year, and a relevant portion of the indirect overhead costs incurred in the Regulatory Year on, or in support of, constructing, maintaining and operating the whole distribution infrastructure required to facilitate network access to all distribution customers.

## Operational IT & Telecoms

IT and telecommunications systems and equipment which are used exclusively in the real time management of network assets, but which do not form part of those network assets. It includes:

- Substation RTU's, Marshalling kiosks and Marshalling kiosks (see definition)
- Communications for switching & monitoring (see definition)
- Control centre hardware and software (see definition).

The following assets and components form part of the distribution network assets and are therefore excluded from Operational IT & Telecoms.

- as part of the plant:
  - Transducers on the plant
  - Control/indication panels and relays
  - Wiring from plant to control panel
- as part of the mains:
  - Auxiliary cables that form part of a pilot cable or are integral with/supported from a main
- as part of the substation:
  - Transducers associated with the substation, eg fire alarms, security alarms and weather stations
  - Dataloggers and statistical metering (for both of the above, the distinction is that these are not directly related to the normal operation of the substation)
  - Wiring (if any) from (plant) control panels to RTU and marshalling kiosk.

Where Operational IT & Telecoms equipment is installed for network plant or substation sites, where such equipment did not previously exist, then the cost of such works should be reported under the appropriate activity driver.

For example:

- the installation of Operational IT & Telecoms equipment to enable remote control functionality to be provided for plant, where such functionality did not previously exist, should be reported as Quality of Service expenditure
- the installation of Operational IT & Telecoms equipment associated with a new substation site established as part of reinforcement works, should be reported as reinforcement expenditure

Where existing Operational IT & Telecoms equipment is replaced or renewed for network plant, or substation sites, where such equipment previously exists, then the cost of such works should be reported as Operational IT & Telecoms expenditure.

## Operational Measures – see BT21CN Protection Operational Measures

## Operational Premises

Premises which contain network assets and are not maintained for accommodating people except for the purpose of maintenance, asset replacement etc.

**INCLUDES:**

- substations.

**EXCLUDES:**

- stores
- depots
- offices.

## **Operational Training**

A Closely Associated Indirect activity. It is the training of Operational Staff employed by DNO or Related Party, or Agency Staff to support the direct activities on the network. Operational Staff are defined separately in the glossary.

Training can be classroom based, including academic courses, or be on the job training. It includes:

- Learner Costs
- Trainer and Course Material Costs (classroom training)
- Training Centre and Training Admin Costs.
- Time of Operational Staff attending non-operational training.

For the following purposes:

- Training of New Recruits
- Operational Up-skilling
- Operational Refresher training.

All training of apprentices and graduate engineers (who are on a defined training scheme) should be treated as Operational Training.

**EXCLUDES:**

- Time of Operational Staff attending Non-Operational training such as line management training (include as labour cost under the relevant activity of that employee)
- Time of Non-Operational Staff attending operational training (include as labour cost under the relevant activity of that employee)
- Recruitment costs of Operational Staff (include under HR in the Core Business Support worksheet)
- Costs of training Contractors undertaking training within DNO training facilities (include in Non Price Control De-Minimis)
- Costs of assessing capability of Contractors (include in Non Price Control De-Minimis).

## **Operational Training - Craftsperson**

Employed by DNO or Related Party to work directly on the network, undertaking craft or mate roles such as linesman, joiner, fitter and mates.

Includes people employed to undertake the following activities:

- Conduct routine overhead line activities such as condition assessment, fault repair, maintenance, quality assurance, refurbishment and dismantlement in line with approved, safe and environmental standards.

- Carry out complex, non routine activities such as fault investigation, whilst also controlling and directing resources. Undertake routine cable jointing activities such as repair, replacement and termination to approved, safe and environmental standards.
- Provide onsite support under direct supervision, to craft activities in line with approved, safe and environmental standards.
- Carry out complex, non routine activities such as fault investigation, whilst also controlling and directing resources. Undertake routine substation activities such as installation, maintenance, inspection and repair of plant and apparatus to maintain the asset to approved, safe and environmental standards.
- Undertake routine installation, removal, replacement and commissioning of metering equipment to approved, safe and environmental standards.

**INCLUDES**

- persons in the following standard occupation classification codes:
  - 52: Skilled metal, electrical and electronic trades
  - 53: Skilled Construction and Building Trades.

**EXCLUDES:**

- any craftsperson employed by contractors.

### **Operational Training - Engineers**

Employed by DNO or Related Party to gain of specialist skills for working on an electrical distribution network and whose intended role requires the skills and abilities of incorporated or professional engineers.

Includes persons in the following standard occupation classification codes:

- 21: Science, Research, Engineering and Technology Professionals
- 31: Science, Engineering and Technology Associate Professionals

### **Operational Training - Learner Costs**

The costs of operational employees undertaking operational training, net of any third party funding contribution (to be reported as Cost Recoveries in cost type split).

Learner costs can include both time spent on classroom training and time spent on on-the-job training.

**INCLUDES** (on a pro-rated basis based on the proportion of employee's time spent on operational training):

- Labour
- Pensions
- Any travel and accommodation costs associated with attending operational training courses/ on the job training activities
- Any external funding for trainees (net off costs, report in Cost Recoveries).

**EXCLUDES:**

- Labour costs of third party employees undertaking training within DNO training facilities (include in Non Price Control De-Minimis)

- Overtime costs of staff on operational training programmes, unless specifically training related (report as Labour under the relevant activity being undertaken)
- Non-operational training learner costs (reported within labour against activities undertaken by that employee).

### **Operational Training - Leaver**

An employee performing a role that falls within the definition of Craftsperson or Engineer leaving the licensee (or Related Party undertaking work for DNO) during the year. Count 1 leaver for one full time employee leaving at any time in the year. If leaver worked part time then report on full time equivalent basis eg if employee worked 3 days per week report 0.6 FTE regardless of when in year leaver left company.

### **Operational Training - Leaver - Due to Retirement**

A Leaver who retires from the company and immediately receives pension (ie not deferred pensioner).

### **Operational Training - Leaver Due to Other Reasons Than Retirement**

A Leaver who leaves the company but does not immediately take pension.

### **Operational Training - New Recruits**

New employee recruited to be trained to fill an operational role (Craftsperson or Engineer) and reported within Operational Training.

### **Operational Training - New Recruit – Craftsperson**

Trainee on a formal apprenticeship, higher apprenticeships or equivalent training scheme with the objective of becoming a Craftsperson (see definition).

### **Operational Training - New Recruit – Engineer**

Trainee of a formal Graduate, A Level, HNC scheme or equivalent training scheme with the objective of becoming an Engineer (see definition).

### **Operational Training - Other Operational Employee**

Employed by DNO or Related Party to work directly on the network, who does not meet the definition of an Engineer or Craftsperson.

Includes persons in the following standard occupation classification codes:

- 51: Skilled agricultural and related trades
- 81: Process, Plant and Machine Operatives
- 82: Transport and Mobile Machine Drivers and Operatives
- 91: Elementary Trades and Related Occupations.



## **Operational Training - Operational Refreshers**

Routine and ad hoc operational refreshers and safety briefings where attendance is required in order to maintain employee's authorisation/skill set at current level.

## **Operational Training - Operational Staff**

Employed by the DNO or Related Party, or Agency Staff to work directly on the network, undertaking the roles of Craftsperson, Engineer or Other Operational Employee (defined separately in the glossary).

## **Operational Training - Operational Up-Skilling**

Operational training for existing Operational Staff, Related Party staff or Agency Staff whose skill set is being augmented or improved. This can include operational employees on either official promotion/development programmes and the enhancement of existing skillsets within current operational roles, and covers both classroom training and on-the-job training.

EXCLUDES:

- training provision for New Recruits (ie initial training for apprentices and other new employees)
- routine operational refreshers and safety briefings, which do not involve any new skills.

## **Operational Training - Trainer and Course Material Costs**

Employment costs for trainers developing and delivering classroom training.

INCLUDES:

- trainer's own training costs
- costs of materials used in training delivery
- cost of any outsourced operational activity training activities.

EXCLUDES:

- the cost of construction of permanent network simulations (include in training centre and training admin costs)
- the cost of supervisors/trainers for on-the-job training activities (report as per the job being undertaken).

## **Operational Training - Training Centre and Training Admin Costs**

Cost of establishing, developing and maintaining training centre, including:

- rent paid on training centre and associated training infrastructure
- rates and taxes payable on training centre and associated training infrastructure
- utilities including electricity, gas and water (supply and sewerage) for training centre and associated training infrastructure

- inspection and maintenance costs of training centre and associated training infrastructure
- facilities management costs including security and reception for training centre and associated training infrastructure
- expenditure on new and replacement assets associated with training centre, whether on building assets or permanent network simulations to be used for training purposes
- costs of administering operational training including management of training records, course scheduling and invitations, attendance monitoring etc.

**EXCLUDES:**

- any training centre costs associated with the delivery of non-operational training (include under property/Non-Operational Capex).

### **Operational Training - Training Days**

Number of days spent by Operational Staff, Related Party staff and Agency Staff in both classroom and on-the-job training activities.

This should be calculated as per the following examples:

- 1 employee for 1 working day = 1 training day
- 1 employee for ½ working day = ½ training day.

**EXCLUDES:**

- Training days of contractors, even if these have been undertaken in DNO training facilities

### **Operational Transport**

A category of BCF reporting which captures emissions resulting from the transportation (often a fleet of vehicles) used in the day to day operation of the business, ie in the inspection and maintenance of the network.

### **Other Consented Activity**

A business or activity conducted or carried on by the licensee or a relevant associate(s) to which the Authority has given its consent, as referred to in Standard Condition 29 (Restriction of activity and financial ring-fencing of the Distribution Business) of the electricity distribution licence.

### **Other Exceptional Event – see Exceptional Events**

### **Other Generation**

A category of DG. Electricity generation that cannot be categorised as any of the following DG categories:

- Onshore Wind
- Offshore Wind
- Tidal Stream & Wave Power

- Biomass & Energy Crops (not CHP)
- Hydro
- Landfill Gas, Sewage Gas, Biogas (not CHP)
- Waste Incineration (not CHP)
- Photovoltaic
- Micro CHP (domestic)
- Mini CHP (<1MW)
- Small CHP (>=1MW, <5MW)
- Medium CHP (>=5MW, <50MW)
- Large CHP (>=50MW).

### **Other (includes rent and subscriptions)**

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type. It includes costs that do not fall under the definitions for other Cost Types, which are:

- Labour
- Pensions
- Contractors
- Materials
- Wayleaves (including easements/servitudes)
- Street Works – Cost Type
- Related Party Margins
- Cost Recoveries
- Customer Contributions.

Specifically includes the categorisation of:

- Rent: Payment, usually of an amount fixed by contract, made at specified intervals in return for the right to occupy or use the property of another.
- Subscriptions: Subscriptions to IT or Telecoms software and for trade and other associations, including:
  - Subscriptions to trade bodies including the Electricity Networks Association (ENA)
  - Ordnance Survey Licences
  - Other Software Licences.

### **Other Income**

Any income received by the activities of core Business Support Costs, which does not relate to insurance claims.

### **Other Metered Standards**

The following standards – ECGS 4A, 4B, 4C, 4D, 5, 6A, 6B, 6C, 6D, 7A, 7B and 7C. These, measured quarterly, in aggregate have a 90% performance standard set in Standard Condition 15A (Connection Policy and Connection Performance) of the electricity distribution licence.

### **Other Network Investment – see Network Design and Engineering**

## **Other Operating Costs**

Any other operating costs which are associated with the physical security upgrade programme.

## **Other Unmetered Connections (non-L.A. or PFI)**

Unmetered connections work (provision of new unmetered points of connection, transfers and Disconnections) which is carried out for neither a Local Authority nor a PFI scheme.

Examples: Lighting on Bus shelters, phone boxes, other street furniture.

## **Out of Area Networks**

Networks owned or operated by the licensee, which are outside the licensee's distribution services area.

## **Out of Area Networks - Network Investment**

The costs a DNO incurs on Out of Area Networks that would be classified as Network Investment if the costs had been incurred within the DNO's distribution services area.

## **Out of Area Networks - Network Operating Costs**

The costs a DNO incurs on Out of Area Networks that would be classified as Network Operating Costs if the costs had been incurred within the DNO's distribution services area.

## **Out of Area Networks - Use of System**

The costs a DNO incurs on Out of Area Networks for the use of the distribution network system.

## **Outsourcing**

Contracting out of an internal business process to a third party organisation. Outsourcing can (but does not have to) involve transferring employees and assets involved in the business process from one firm to another. The definition of outsourcing includes both foreign and domestic contracting, which may include offshoring, described as "a company taking a function out of their business and relocating it to another country. For the avoidance of doubt, as explained under Insourcing, this should not include roles within the organisational structure (or within a project or programme team) that have been filled by individual sub-contractors.

## **Outage Planning and Management – see Control Centre**

## **Overall Consequence of Failure**

The total Consequence of Failure for an asset, taking account of the Consequences of Failure in all Consequence Categories.

## **Overhead Line - Inspections**

The patrol and inspection of overhead lines (all voltages) and includes foot, climbing and helicopter patrols and inspections. This also includes non-routine asset condition surveys (all voltages) and ad hoc repair carried out at the same time as the inspection.

## **Overhead Line (Temporary Shrouding)**

The provision and removal of temporary shrouding at the request of a third party, in order to provide safe working arrangements for the third party (eg third party is erecting scaffolding close to an LV overhead line).

## **Overhead Mains**

A LV overhead line that forms the LV network excluding overhead services.

## **Over/Under Recovery**

For the purpose of Connections reporting, is the difference between the receipts from customers and the costs incurred to provide Connections.

## **P**

## **Pass-Through Costs**

Costs for which companies can vary their annual revenue in line with the actual cost, either because they are outside the DNO's control or because they have been subject to separate price control measures. This covers costs recoverable under CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence.

## **Pass-Through Transmission Connection Point Charges**

Has the meaning given to it in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence.

## **PCFM Cost Type – see Price Control Financial Model (PCFM) Cost Type**

## **Pensions**

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type.

Pensions includes licensee payments on a cash basis for the following:

- Ongoing normal service contributions to Defined Benefit Pension Schemes
- Ongoing normal service contributions to Defined Contribution Pension Schemes
- Ongoing normal service contributions to stakeholder and/or personal pension plans
- (from 31 March 2015) Payments in respect of Pension Scheme Incremental Deficit repair payments
- Payments in respect of the PPF levy (whether paid directly by the distribution business or within ongoing contribution rates)
- Payments in respect of pension scheme administration costs (whether paid directly by the distribution business or as part of ongoing contribution rates).

**EXCLUDES:**

- (Until 31 March 2015) Payments in respect of Pension Scheme Incremental Deficit repair payments
- (from 31 March 2015) Payments in respect of Pension Scheme Established Deficit repair payments (report in Non Activity Based Costs)
- Payments in respect of pension related severance costs (report in Atypicals - Early Retirement Deficiency Contributions and report ERDCs cost type split as labour costs)
- Payments in respect of augmentation of benefits.

## **Pensionable Pay**

Basic pay plus pensionable allowances with no deductions.

## **Pension Deficit Repair Payments**

The cash costs paid, directly or indirectly, by the licensee to reduce a shortfall in a pension scheme's assets compared with its liabilities as set out in the deficit recovery plan agreed between the licensee and the pension scheme trustees, reported to the Pensions Regulator and certified by the pension scheme actuary, in accordance with the pension scheme rules.

From 1 April 2015 these are split into:

- payments in respect of Pension Scheme Incremental Deficit repair payments, which are part of Pensions, which are payments relating to funding the incremental deficit
- payments in respect of Pension Scheme Established Deficit repair payments, which are payments related to funding the established deficit.

## **Pension Protection Fund (PPF)**

The fund established to pay compensation to members of eligible defined benefit pension schemes, when there is a qualifying insolvency event in relation to the employer and where there are insufficient assets in the pension scheme to cover Pension Protection Fund levels of compensation.

## **Pension Protection Fund Levy (PPF Levies)**

The cash costs paid, directly or indirectly, by the licensee/distribution business or pension scheme (in respect of the distribution business) to the Pension Protection Fund.

## **Pension Scheme Administration Costs**

The administrative costs for the operation of a pension scheme by the scheme trustees (excluding interest and taxation) including salaries and on costs of pension scheme administrators and all other associated costs of administering the pension scheme, whether borne by the scheme directly or the employer(s) and not recovered from the scheme.

INCLUDES:

- Actuarial consultancy fees
- Administration and investment management fees where not remunerated by deduction from investment returns
- Third party administration fees
- Electricity Pensions Services Limited costs
- Pensions administration system licence and support costs
- Legal advisers fees
- Recruitment costs
- Pension secretariat
- Policy and strategy
- Administration consultancy
- Auditors fees
- Custodian fees
- Communication consultancy fees
- General office costs (eg printing, IT support, publications etc)
- Investment consultancy fees
- Tracing agency fees
- Member communication costs
- Trustee remuneration
- Trustee training costs.

EXCLUDES:

- administration and investment management fees where remunerated by deduction from investment returns
- costs incurred by the licensee/distribution business in managing its ongoing and contributions and deficit repair payments to pension schemes
- costs of actuaries appointed by the scheme sponsors to advice on the scheme valuations and recovery plans
- costs incurred by the licensee/distribution business, directly or indirectly, in managing its relationship with the Pension Scheme and scheme trustees or actuaries.

## **Pension Scheme Established Deficit**

The difference between pension scheme assets and liabilities, as determined under periodic scheme valuations, that is attributable to:

- the regulated business, and
- pensionable service up to the end of the cut-off date, which for DNOs is 31 March 2010.

If the Pension Scheme Established Deficit figure becomes negative, it is referred to as a surplus relating to pensionable service up to the end of the cut-off date.

### **Pension Scheme Incremental Deficit**

The difference between pension scheme assets and liabilities, as determined under periodic scheme valuations, that is attributable to:

- the regulated business, and
- pensionable service after the cut-off date, which for DNOs is 31 March 2010.

If the Pension Scheme Incremental Deficit figure becomes negative, it is referred to as a surplus relating to pensionable service after the cut-off date.

### **Photovoltaic**

A category of DG. Electricity generation using photovoltaics (solar panels or cells).

### **Physical Loss Reduction Actions**

Actions undertaken to reduce electricity losses where physical assets are affected, for example the installation or replacement of transformation equipment.

### **Physical Security**

Sites designated as critical national infrastructure by DECC. Includes all associated costs of complying with DECC requirements.

### **Physical Security Upgrade Programme (PSUP)**

DECC's enhanced physical security upgrade programme.

### **Pilot Wire Overhead**

A multicore cable, not part of a distributing main, that forms part of a protection scheme, which:

- is suspended on poles or towers
- carries signals, currents or voltages between different substation sites.

### **Pilot Wire Underground**

A multicore cable, not part of a distributing main, that forms part of a protection scheme, which:

- is buried with mains cables or separately
- carries signals, currents or voltages between different substation sites.



## **Pluvial Flooding**

Flooding which occurs when the ground and drainage systems become saturated following extremely heavy downpours of rain. It is also known as surface water flooding. Flood mitigation schemes and flooding surveys will be targeted at mitigating the risk from pluvial flooding to their electrical assets.

## **POC (Point of Connection)**

The point on the licensee's Distribution System at which the Premises will be directly or indirectly connected to that system.

## **Post-Delivery Support Agreements (PDSA)**

Any ongoing expenditure associated with post-delivery support agreements which will be put in place following completion of a scheme as part of the physical security upgrade programme.

## **Post 2005 DG**

DG that has a DG connection start date on or after 1 April 2005.

## **PPF levy – see Pension Protection Fund Levy**

## **Pre-Arranged Incident**

Any incident arising from the pre-arranged isolation of any circuit or item of equipment energised at power system voltage that results in loss of supply and where statutory notification has been given to all customers affected at least 48 hours before the commencement of the earliest Interruption (or such notice period of less than 48 hours where this has been agreed with the customer(s) involved), and where the loss of supply start time is not before that notified to customers.

## **Pre-Investment Flooding Risk**

The flooding risk of a site before any investment in flood defence was/has been undertaken.

## **Premises**

Any land, building, or structure and any distribution system including the Electricity Distributor's.

## **Present Flooding Risk**

The flooding risk of a site as of the 31 March of the year that is being reported on.

## **Present Unmitigated Flooding Risk**

The specific flooding risk of a site as of the 31 March of the year that is being reported on that has not been mitigated against flooding.

## **Previously Closed Job**

Jobs that have been financially reopened after having been reported as financially closed in a previous reporting year.

## **Price Control Financial Model (PCFM)**

The financial model which derives the incremental changes to base revenue (MOD) during the RIIO price control period.

## **Price Control Financial Model (PCFM) Cost Type**

The PCFM Cost Types defined in this glossary are:

- Load Related Capex
- Non-Load Related Capex - Asset Replacement
- Non-Load Related Capex - Other
- Faults
- Tree Cutting
- 100% 'Revenue Pool' Expenditure
- Controllable Opex.

## **Primary Network**

Network assets where the primary voltage is EHV or above.

## **Primary Substation**

A substation at which the primary voltage is greater than HV and the secondary voltage is HV (covers 132/11kV substations).

## **Primary Reinforcement**

Reinforcement of the Primary Network (see definition).

## **Priority Services Register**

A list established and maintained by an Electricity Distributor which contains the details of Priority Services Register Customers.

## **Priority Services Register Customer**

A domestic customer who:

- is of pensionable age, disabled or chronically sick

- due to special communication needs or dependency on electricity for medical reasons, requires certain information and advice about Interruptions in the supply of electricity to the customer’s premises, and has either:
  - personally asked the licensee to add their name to the Priority Services Register,
  - had a person acting on their behalf ask for their name to be added to it, or
  - had a relevant supplier ask for their name to be added to it.

## **Probability of Failure**

The likelihood of a Condition Based Functional Failure occurring (per annum).

## **Profit and Loss Statement of Comprehensive Income**

One of a company's primary financial statements, this indicates how revenue (money received from the sale of goods and services before expenses are taken out) is transformed into net income.

## **Project Management**

A Closely Associated Indirect activity included in the Core CAI worksheet.

This activity relates to the activity of managing projects from authorisation through preparation, construction and energisation to completion.

INCLUDES:

- overall responsibility for delivery of single major projects or multiple minor projects
- for each specific project:
  - determination of resource requirements
  - planning and requisitioning of materials and equipment
  - liaising with procurement for non-standard materials as required
  - work and resource programming
  - risk assessments of the overall project content
  - preparation of work instructions
  - issue work to own staff and contractors
  - on-site supervision and technical guidance
  - quality checks on work undertaken
  - organising network access and co-ordinating outages
  - organising and supervising (where appropriate) the undertaking of commissioning tests
  - issuing completion certificates
  - arranging energisation of assets
  - site planning activities, including checking equipment access, confirming physical layout of equipment and investigative testing such as load testing
  - identifying required changes to protection settings and calculating those settings
  - liaising with contractors and third parties
  - cost control.

**EXCLUDES:**

- Any IT or property costs associated with Project Management (include in IT&T and Property Management Indirect Activities);
- Any employees managing other Indirect Activities (eg Logistics Manager) (include under the relevant indirect activity heading);
- Any design work relating to new connections, new or replacement assets (include in Network Design and Engineering)
- Any work undertaken directly on the assets (include under relevant direct activity)
- Project management associated with NOCs (include in Engineering Management and Clerical Support)

### **Property Management (Business Support)**

The costs of providing, managing and maintaining all non-operational premises (with the exception of operational training centres).

**INCLUDES:**

- rent and rates or any other property taxes for non-operational properties
- utilities (electricity, gas, water supply and sewerage charges)
- inspection and maintenance costs
- facilities management costs, including security and reception
- the ongoing operating cost provision of all office equipment, with the exception of IT or Telecoms equipment.

**EXCLUDES:**

- any costs relating to operational property (substation electricity include in Substation Electricity, substation rents include in Wayleaves Payments)
- Business Rates Payments (which are a Pass-Through Cost)
- operational training centres (include under Operational Training)
- any of the IT systems associated with property management (include under IT)
- relocation costs to or from non-operational premises (include costs of employee relocation with the costs of that employee)
- Capital purchase of office equipment.

### **Property (Non-Operational)**

Expenditure on new and replacement property assets which are not system or operational assets.

**INCLUDES:**

- Premises used by people (eg stores, depots and offices) which are not operational premises (eg substations)
- Office equipment.

### **Protection Schemes (all voltages)**

Expenditure on substation located protection, control and SCADA equipment (HV, EHV, 132kV). This includes testing, repair and preventative maintenance. This also

includes protection of conventional circuit breakers when undertaken independently of asset replacement schemes.

### **Provider of Connection Work**

The majority provider of the Contestable works within each individual Connection Project. The majority provider must be determined as the party or parties that will undertake/have undertaken the greater value of Contestable connection work, as prescribed by the details of the relevant DNO's charging methodology. Where a third-party connection has subsequently been adopted by the host DNO it must be referred to/recorded as an ICP connection. Where the third party retains ownership of the asset for an independent network it must be referred to/recorded as an IDNO connection. Where an ICP operates as the connecting agent for an IDNO, this Connection Project must be referenced recorded as an IDNO connection. Where an IDNO company operates as an ICP, this Connection Project must be recorded as an ICP connection.

### **PSUP Direct labour**

Costs associated with staff working directly on operational activities for the physical security upgrade programme, for example site maintenance or site specific audits.

## **Q**

### **Quality of Service (QoS)**

Costs where the primary purpose is to improve performance against the IIS targets or to improve the overall fault rate per km of the distribution network.

#### **INCLUDES:**

- costs associated with the installation of new assets or the replacement of existing assets where the primary purpose is to either:
  - reduce the average number of customers affected by an unplanned incident
  - reduce the average time that customers are affected by an unplanned incident
  - reduce the overall fault rate per km of the distribution network
- incremental or extra costs associated with the replacement of existing assets that are planned for replacement on condition assessment or are performing poorly, with assets that have a specification that exceeds the nearest MEA
- the incremental costs over and above those of the MEA would be treated as quality of service capex.

#### **EXCLUDES:**

- The planned non-load related replacement of assets undertaken, using their nearest modern equivalent asset (MEA), with the objective of ensuring that the underlying condition, performance, integrity and resilience of the distribution network are maintained. The replacement of assets with their nearest MEA would usually be treated as asset replacement.

## **Quotation**

The notice required to be given by an Electricity Distributor in accordance with section 16A(5) of the Electricity Act 1989.

### **Quotation Issued Date**

The Working Day on which the information was issued to the applicant, either electronically or in hard copy.

### **Quotation Offer date**

The date on which the DNO dispatched the first quotation that is subsequently accepted by the connecting party. This must be assigned to the nearest working day with quotations offered after 5pm rolling into the next working day.

## **R**

### **Rail Electrification**

Electrification of an existing railway line. Defined here in connection with Diversions activity, where the installation of rail electrification equipment requires the relocation or re-routing of DNO apparatus.

### **Rail Electrification Project**

A Network Rail project for the electrification of a discrete rail route.

### **Real-Time Thermal Rating**

As featured in the transform model developed through the smart grids forum, the use of measurement and ambient forecasting data to predict the rating (and hence current carrying capacity) of assets in a real-time mode.

### **Rebuild**

The reconstruction of an existing network asset.

### **Receivers - see Substation RTU, Marshalling Kiosk and Receivers**

### **Recoveries of Previously Written Off Debt**

Income received in respect of a debt which was previously reported as a bad debt written off.

## **Recovery of Costs**

For the purposes of worksheet I5 – Theft Recovery in the Costs and Volumes Reporting Pack means any additional monies recovered in respect of other costs as detailed in paragraph 49.8 of Standard Condition 49 (Electricity Distribution Losses Management Obligation and Distribution Losses Strategy) of the electricity distribution licence.

## **Recovery of Value of Electricity Taken**

Any monies received in respect of the value of electricity as referred to in paragraph 49.7 of Standard Condition 49 (Electricity Distribution Losses Management Obligation and Distribution Losses Strategy) of the electricity distribution licence.

## **Ref number/Project id**

The unique reference number or name given to each individual Connection Project on a project-by-project basis within the Connection Reporting Pack. Where possible this reference must follow a logical pattern and when projects are re-opened across reporting years, the project reference must remain constant. However, it is understood that this reference is likely to differ from the original quote reference if this has been included in a previous year.

## **Reference Case Scenario**

The DECC scenario 1 equivalent – high abatement in low carbon heat – will act as a reference case to allow comparison between DNOs. We require a second full data template pack to be populated for this scenario.

## **Refurbishment**

A one-off activity undertaken on an asset that is deemed to be close to end of life or is otherwise not fit for purpose that extends the life of that asset or restores its functionality. This activity does not result in the recording of a new or disposed asset in the Asset Register, but may improve the Health Index of the asset. Refurbishment can include the replacement or reconditioning of components of an asset.

Activities considered as Refurbishment are identified in the Refurbishment and Repairs & Maintenance Task Allocation Tables in Chapter 4 of this document.

## **Refurbishment Protection Schemes**

The full or partial replacement of protection schemes where the work is undertaken as a standalone programme of work.

The replacement of substation located protection, control and SCADA equipment undertaken as part of plant asset replacement activity is excluded from 'Refurbishment - Protection' except where such Protection Scheme equipment is located at a different substation site to the plant that is being replaced.

## **Regulatory Fraction**

The proportion of a company's pension scheme that relates to licensed regulated business activities before the relevant cut-off date and which is funded through price controlled charges, ie the Pension Scheme Established Deficit; post cut-off date it excludes the Pension Scheme Incremental Deficit. The opening or initial (ie cut-off date) regulatory fraction is as set out or applied in the respective price control documents or as incorporated in the licence or charge restriction conditions applicable to each licensee. The fraction will be subject to true up and reset in accordance with this deficit allocation methodology. This fraction is after any adjustment that was made in price allowances for EDRCs.

## **Regulatory Instructions and Guidance (RIGs)**

The collection of documents issued by Ofgem to the DNOs to enable them to complete the reporting requirements associated with the RIIO-ED1 price control arrangements. It includes excel reporting packs, instructions and guidance, commentaries and this document – the glossary.

## **Regulated Margin – see Margin**

## **Regulatory Tax Losses**

Tax losses carried forward in the regulatory accounts for the year of reporting.

## **Regulatory Year**

Has the meaning given in Standard Condition 1 of the electricity distribution licence.

## **Reinforcement**

Network development to relieve an existing network constraint or facilitate new load growth.

## **Reinforcement Works**

Those works required on the Electricity Distributor's distribution system to accommodate the new or increased connection.

## **Re-interruption – see Customers Re-interrupted (RIs)**

## **Related Party**

A person or entity that is related to the entity that is preparing its financial statements (referred to as the 'reporting entity') as per IAS 24. Includes both affiliates and related undertakings of the licensee as defined in standard condition 1 of the electricity distribution licence. An affiliate or related undertaking shall remain as a Related Party for the whole of the price control period even if it is no longer part of the group due to restructuring.



## **Related Party Margin**

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type.

The profit or loss recorded on a transaction with an affiliate being the excess or deficit on actual direct costs and indirect costs (excluding financing costs) fairly attributable to the transaction or the charge and the cost of providing that transaction.

For the avoidance of doubt this does not include exceptional items, tax, fines, penalties or the gain or loss on the disposal of assets or investments (of any sort), ie it should be net operating costs level.

For Captive Insurance businesses the margin is to be computed based on the captive's premium income less reinsurance premiums, claims paid out and movements on technical and IBNR reserves attributable to the distribution business only, ie usually reported as the profits/loss on the Technical account. Where a captive insures more than the distribution licensee(s), then it's profit/loss should be computed pro rata to the premiums paid by the licensee to total premium income in the captive for the year and the movements on technical and IBNR reserves not attributable to the distribution business must first be removed.

## **Related Party Margin charged to Related Party by DNO Affiliates or Related Undertakings that do not Trade/Transact with the DNO**

For the purposes of Connections reporting, the margin embedded within charges incurred by a Related Party that trades with the DNO from a transaction with another Related Party that does not trade directly with the DNO.

## **Related Party Margin Total Disallowed**

All Disallowed Related Party Margins that are incurred by the DNO on activities for which they are funded through RIIO-ED1.

## **Related Party Margins Total within Price Control**

All Related Party Margins that are incurred by the DNO on activities for which they are funded through RIIO-ED1.

## **Related Party Margin within Price Control Total Allowed**

All Allowed Related Party Margins that are incurred by the DNO on activities for which they are funded through RIIO-ED1.

## **Related Party Transaction**

A transaction that occurs where one party provides goods, works, supplies or services to a Related Party.

## **Related Party Turnover**

The turnover for the Related Party and for reporting purposes is segmented to that as charged to each or any other DNO in the group, each other related parties and to external customers.

## **Relevant Authority**

The authority which has responsibility for street lighting and/or street furniture. This means a body responsible for maintaining the unmetered inventory of street lighting or street furniture.

## **Relevant Consumer**

A relevant person is:

- a person who is a consumer in relation to electricity supplied by a regulated provider, or
- a person who is a consumer in relation to services provided by a regulated provider.

A Relevant Consumer does not have to be the named party on the bill where services or electricity are supplied by a regulated provider.

## **Relevant Theft of Electricity**

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## **Remote Location Generation (Opex)**

Fixed diesel generation stations that provide permanent emergency backup in remote locations including islands. Remote locations will generally only have a single electrical feed.

Mobile generation is not classified a Remote Location Generation.

INCLUDES:

- Remote Location Generation Operating Costs: Fuel
- Remote Location Generation Operating Costs: Operation and Maintenance

EXCLUDES:

- Remote Location Generation Capital Costs

## **Remote Location Generation Capital Costs**

The cost of refurbishment, asset replacement and other capital investments associated with Remote Location Generation. This includes investment in generating plant, fuel storage and systems, buildings and other civil works.

## **Remote Location Generation Operating Costs: Fuel**

The cost of fuel to run Remote Location Generation.

## **Remote Location Generation Operating Costs: Operation and Maintenance**

The cost of operation and maintenance associated with Remote Location Generation.

### **Repair & Maintenance**

#### **INCLUDES:**

- The activity relating to the invasive (“hands on”) examination of, and the undertaking of any subsequent works to repair defects on, system assets. This includes:
  - minor repairs carried out at the same time as the maintenance visit
  - subsequent repair works undertaken to remedy defects identified by either inspection or maintenance.

In addition to the examination of system assets, other activities considered as Repair & Maintenance are identified in the Refurbishment and Repairs & Maintenance Task Allocation Tables in Chapter 4 of this document.

#### **EXCLUDES:**

- Remote Location Generation (ie diesel generation costs providing permanent emergency backup on islands)
- The physical dismantlement of existing assets (at all voltage levels) where the cost of dismantlement is not chargeable to a third party and no new assets are to be installed
- Cost of electricity consumed at substations
- Supervisory input to plan workloads and manage staff (include under Engineering Management & Clerical Support)
- Data review except the initial recording on site (include under Engineering Management & Clerical Support)
- Maintenance of non-system assets (include under Property Management)
- Tree cutting and tree clearance (include under Tree Cutting)
- Indirect Costs
- Any costs resulting from physically repairing an asset that was instigated by the receipt of a trouble call (this should be included under Troublecall)
- Any of the costs associated with inspection.

### **Repair & Maintenance - Protection Schemes (All Voltages)**

Repair and maintenance work on substation located protection, control and SCADA equipment (HV, EHV, 132kV), which are undertaken as independent programmes of work. This includes testing, repair and preventative maintenance. This also includes protection of conventional circuit breakers.

#### **EXCLUDES:**

- the replacement of individual relays, selector switches, protection and/or control panels.

## **Repair & Maintenance – Substations (Civils)**

Repair and maintenance of civils items at Substations (eg fencing, buildings, enclosures and site etc).

Activities considered as Repair & Maintenance – Substation (Civils) are further identified in the Refurbishment and Repairs & Maintenance Task Allocation Tables in Chapter 4 of this document. These are identified under the entry for Substation (Civils).

### **Repairs**

For the purposes of Troublecall reporting in the Cost and Volumes Reporting Pack, the term “Repairs” is used in conjunction with unplanned incidents on power system voltage equipment and relates to the repair costs, which are classified as Network Operating Costs, associated with unplanned Damage Incidents.

### **Repeat Complaint**

Has the meaning given to it in CRC 2C (Broad Measure of Customer Service Adjustment) of the electricity distribution licence.

### **Resolved Complaint**

A consumer complaint in respect of which there remains no outstanding action to be taken by the regulated provider. In this case, the complaint has either (i) been resolved to the satisfaction of the relevant consumer who made that consumer complaint or on whose behalf that consumer complaint was made, or (ii) although the consumer is not openly satisfied with the outcome, the consumer has agreed that the regulated provider has taken all action reasonably expected, or (iii) has not made further contact with the regulated provider within 28 calendar days of despatch by the regulated provider of its substantive response to the complaint. For the avoidance of doubt, in case (iii) the date at which the complaint should be treated as resolved is the date at which the letter was despatched.

### **Restoration Stage**

A stage of an incident, at the end of which supply to some or all customer(s) is restored and/or a circuit or part of a circuit is re-energised, excluding any restoration/re-energisation which is followed within 3 minutes by a circuit trip.

### **Restructuring**

The act of re-organising a business for making the organisation more efficient.

INCLUDES:

- redundancy costs (inc. ERDCs).

EXCLUDES:

- early retirement costs (inc. ERDCs).

### **Retained LCN Fund Royalties**

Has the meaning given to it in the LCN Fund Governance Document.

### **Retained NIC Royalties**

Has the meaning given to it in the LCN Fund Governance Document.

### **Returned LCN Fund Royalties**

Has the meaning given to it in CRC 1B (Interpretation of Part 4) of the electricity distribution licence.

### **Returned Royalty Income**

Has the meaning given to it in CRC 1B (Interpretation of Part 4) of the electricity distribution licence.

### **Revenue Protection Services - see DRS5. Revenue protection Services**

### **RIGs – see Regulatory Instructions and Guidance**

### **RIIO-ED1**

The electricity distribution price control period that runs from 1 April 2015 to 31 March 2023.

### **RIIO-ED1 Business Plan**

Has the meaning given in Standard Condition 1 of the electricity distribution licence.

### **RIIO-ED1 CBA Tool**

The CBA tool DNOs used when completing their RIIO-ED1 Business Plans.

### **Ring Fence Costs**

Has the meaning given to it in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence.

### **Rising and Lateral Mains (RLM)**

Individual DNO owned 3 phase cable or busbar, not laid in the ground, which runs within or attached to the outside of a multiple occupancy building for:

- more than 3m vertically, or
- more than 3m horizontally, and

- to which a number of individual services are connected, usually via a distribution board.

This excludes undereaves or mural wiring (report under LV Service Associated with RLM).

## **Risk Index**

Has the meaning given in Standard Condition 51 (Network Asset Indices Methodology) of the electricity distribution licence.

## **RLM – LV Mains Inspected**

The identification and inspection of Rising and Lateral mains within multi-occupancy buildings for which the company accepts asset management responsibility.

## **RLM- LV Mains Repaired or Maintained**

Repair and maintenance work on rising mains for which the company accepts asset management responsibility. Complete replacement of mains should be reported under Asset Replacement.

## **RLM - LV Service Associated with RLM**

An LV service which connects an individual property to a Rising or Lateral Main.

## **RLM - LV Services Associated with RLM Inspected**

The identification and inspection of services (or looped services) to properties connected to a rising main or lateral, within multi-occupancy buildings for which the company accepts asset management responsibility.

## **RLM - LV Services Associated with RLM Repaired or Maintained**

Repairs and maintenance expenditure on LV services associated with rising mains for which the company accepts asset management responsibility. Complete replacement of services should be reported under Asset Replacement.

## **RMU (Ring Main Unit)**

Packaged switchgear that is either pre-welded together or shares the same tank. The unit is therefore non-extensible and is replaced as a single unit.

## **S**

## **Safety Climbing Fixtures**

Support or plant-mounted fixtures or devices provided to improve the safety for operators.

## **Salary Sacrifice Scheme**

An agreement between an employer and an employee to change the terms of the employment contract to reduce the employee's entitlement to cash pay. This sacrifice of cash entitlement is usually made in return for some form of non-cash benefit, eg pension contribution.

## **Schedule 23 FA2003**

Schedule 23 of the Finance Act 2003 provides for corporation tax relief for a company where a person:

- acquires shares by reason of his, or another person's, employment with that company (an "award of shares"), or
- obtains by reason of his, or another person's, employment with that company an option to acquire shares and acquires shares in exercise of that option (the "grant of an option").

## **Scheduling and Call Centre (costs only)**

Ongoing scheduling and call centre costs associated with the Smart Meter roll-out which will continue to be incurred beyond the roll-out period itself.

## **Scheme Identifier**

The unique identification number given to each site covered by the Physical Security Upgrade Programme. This should be reported rather than the site name in worksheet C3 – Physical Security of the Costs and Volumes Reporting Pack.

## **Scottish Environment Protection Agency (SEPA)**

Scotland's environmental regulator, a non-departmental public body, accountable through Scottish Ministers to the Scottish Parliament.

## **Secondary Network**

Network assets where the primary voltage is HV or below.

## **Secondary Reinforcement**

Reinforcement of the Secondary Network (see definition).

## **Second Tier Funding**

Funding provided to a licensee through the Second Tier Funding Mechanism for Second Tier LCN Fund projects.

## **Second Tier Funding Mechanism**

Has the meaning given to it in CRC 2J (Low Carbon Networks Fund) of the electricity distribution licence.

## Section 22 Connections

A Connection that is pursued by a Customer under Section 22 of the Electricity Act (1989) (Special agreements with respect to connection).

### Self-Insured Risks

Risks that are not insured with a regulated insurer for an insurance premium and which are either provided for in the licensee's regulatory accounts or which are charged or recharged to it by a Related Party.

### Service Alterations (SM)

Work carried out by DNOs to alter a service position (supply cable and service cut out), in order to install a Smart Meter as part of the Smart Meter roll-out.

### Service Inspection (Costs only) (SM)

Costs incurred by DNOs for inspections of service terminations requested by supplier or representative as part of a Smart Meter installation during the roll-out.

### Servitudes

An interest in land owned by another that entitles its holder to a specific limited use of that land over a determined period of time or in perpetuity. Easements (England & Wales), Servitude (Scotland).

## Severe Weather Exceptional Events – see Exceptional Events

### SF6

The chemical symbol for Sulphur hexafluoride, a gas that is used as both an insulating and arc extinction medium in electrical plant. The reporting requirement is in respect of fugitive BCF emissions attributed to SF6 lost from electrical plant.

### SF6 Bank

The total mass (in kg) of sulphur hexafluoride held by the DNO for both assets installed on the network and those held in inventory. Each DNO's SF6 bank should be calculated according to the methods set out in ENA Engineering Recommendation S38.

### SF6 Emitted

The total mass (in kg) of sulphur hexafluoride emitted during asset installation (only if gassed by the DNO), service life and decommissioning. Service life emissions include those due to leakage (measured through top-ups); those measured during service activity requiring gassing and degassing; and those due to equipment failure resulting in the loss of all gas contained by the asset. The SF6 emitted value should account for gas recovered.



Each DNO's SF6 emitted should be calculated according to the methods set out in ENA Engineering Recommendation S38. DNOs should not assume a percentage leakage rate to determine any element of SF6 emitted and if a DNO does not have measured records of SF6 emitted, this should be highlighted in the accompanying commentary.

### **SF6 Emitted Mitigation Schemes**

Schemes undertaken where the primary objective is to reduce or remove the risk of discharging SF6 gas into the environment.

### **Shared Connection Capex for DG**

The part of total capex for DG that is to be recovered from distributed generation connection charges, which are payable to the licensee, but exclusive of all costs relating to sole-use assets and the incremental costs in excess of the high-cost project threshold (as set out in the distribution charging methodology).

### **Shetland: Competitive Process Costs (CPC)**

Costs associated with the competitive process SSEH must run to procure a cost efficient enduring energy solution for Shetland, as directed by Ofgem. The following costs make up the Competitive Process Costs:

- **CPC project management:** Project management involved in the competitive process.
- **CPC regulatory and consent:** Includes costs for stakeholder engagement and legal services.
- **CPC engineering:** Engineering consultancy fees and feasibility modelling costs.
- **CPC procurement:** Costs for the Independent Auditor required to oversee the competitive process, as directed by Ofgem.

### **Shetland: Contingency Costs (CC)**

Capital and operating costs for remote generation capacity (excluding fuel), if applicable. CC is made up of the following components:

- **CC project management:** Resources required to develop and manage any contingency arrangements including any engineering work required.
- **CC regulatory and consent:** Costs for leasing land, environmental surveys and work towards any planning and consent if required.
- **CC procurement:** Procurement of temporary generation required to back up LPS if required.
- **CC construction:** Covers any work required to prepare sites for temporary generators and associated costs.
- **CC commissioning:** Includes the costs for commissioning and decommissioning of generator sets.

## Shetland: Fixed Energy Costs Allowance

The sum of Third Party Contracts (TPC), LPS Capital & Operating Costs (LPSC), NINES Ongoing Costs (NINES), and potential Contingency Costs (CC).

### Shetland: LPS Capital & Operating Costs (LPSC)

Capital and operating cost allowance for Lerwick Power Station (LPS) (excluding fuel) made up of the following components:

- LPSC insurance: Insurance costs for the period.
- LPSC EU Emission Trading Allowances: Costs to comply with phase 111 of the EU Emission Trading Scheme (EU ETS), regulated by Scotland Environmental Protection Agency (SEPA).
- LPSC consents and permits: Costs associated with three permits that LPS must operate under:
  - Pollution Prevention and Control (Scotland) Regulations 2000
  - Greenhouse Gas Emissions Permit
  - Control Of Major Accidents Hazards (COMAH)
- LPSC engineering: Costs for design, review and engineering of solutions for LPS.
- LPSC construction: Includes any necessary power station works including system inspections, repair works, asset refurbishment, repair or replacement, ongoing maintenance, statutory inspections and any commissioning costs.
- LPSC operations staff: Salaries for management and industrial staff, transport, training, welfare, stores and administration.
- LPSC spares and consumables: Costs for station engine spares.
- LPSC depreciation: Depreciation for the operational life of LPS.

### Shetland: NINES Ongoing Costs (NINES)

Cost of integrating and operating solutions from the NINES project which includes:

- **NINES operational costs:** Ongoing operations staff costs, licence fee costs for the Active Network Management (ANM) system, the Distribution Demand Side Management (DDSM) communication system and ongoing licence costs associated with the integration of NINES with the SHEPD network management and control systems. DDSM variable costs are also included, which cover annual payments to participating customers.
- **NINES other:** Costs related to project management, regulatory and consent, engineering and modelling, and construction.

### Shetland: Third Party Contracts (TPC)

Costs related to third party contracts for Power Purchase Agreements (PPA) as stated in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence. TPC is made up of:

- **TPC project management costs:** costs involved in the negotiation and maintenance of the PPA.

- **TPC operational costs:** costs of the PPA between SSE Energy Supply Limited (SSE ESL) and the operator of the generator at Sullom Voe Terminal.

## Shetland Variable Energy Costs

The sum of:

- the cost of fuel purchased for use by LPS, including any fuel costs for contingency arrangements
- the cost of environmental permits in respect of generation on Shetland, and
- income from units purchased by suppliers in respect of generation on Shetland.

## Short Interruption

The loss of supply of electricity to one or more customers due to automatic, manual or remote control operation of switchgear or fusegear on the distribution system or other systems, upstream of the customers interrupted, where supply is restored in less than three minutes. (Note an initial loss of supply of electricity for less than 3 minutes should be treated as a short interruption rather than an interruption.)

## Single Circuit

One circuit (overhead or underground) which is installed in a single trench or set of ducts or tunnel or set of supports.

## Site Security

Activity undertaken where the primary driver is to improve the physical security of sites to prevent third party access or interference. Data is presented in the table broken down by voltage of substation.

EXCLUDES:

- activity driven by security of critical national infrastructure. Costs for this activity should be captured in the worksheet C3 -Physical Security in the Costs and Volumes Reporting Pack.

## Small CHP ( $\geq 1\text{MW}$ , $< 5\text{MW}$ )

A category of DG. Electricity generation using combined heat and power plant that is greater or equal to 1MW but less than 5MW.

## Small Tools, Equipment, Plant and Machinery (Non-Operational) (STEPM)

Small tools, equipment, plant and machinery which are used to work on, assist work on or test system assets. They are not system assets and are not permanently attached to one system asset at one location, irrespective of when they were bought or for what purpose.

Typically INCLUDES:

- Fault location equipment - re-energising, eg
  - Bidoyng, Modular Rezap, Faultmaster Rezap)
- Fault location equipment - non re-energising, eg
  - Cable Sniffers
  - OHL Pathfinder
  - Cable fault locator (Kehui , EZ Thump, Meggar TDR, Riser Bond TDR, Bicotest TDR, BAUR Test Vans, SEBA Test Vans, Megger EZ Thump 12KV, Megger Test Van) (vans are reported under Vehicles and Transport (Non-Operational) but equipment within vehicles is within STEPMP
  - Delta V (still in use but no longer manufactured)
- Hand and power tools
- Instruments and testing equipment, eg
  - Partial discharge monitors
  - Voltage recorder
  - Load monitors
- Power quality monitoring equipment
- Ladders (used at substations and transported on vehicles)
- Lifting and handling gear
- Street Works signing and guarding equipment
- Non-wheel- mounted winches and winching equipment
- Cable drum equipment, eg drum stands
- Workshop equipment, eg pedestal drills, grinding wheels and reciprocating saws
- Misc. Equipment, eg cable spiking guns, pumps, gas hoses and fittings
- Inspection costs for recertification and recalibration associated with STEPMP.

EXCLUDES:

- Harness, climbing belts and fall arrest equipment (include as labour cost under the relevant activity of that employee).
- Generators (include capital costs in Vehicles and Transport (Non-Operational) and fuel costs in Vehicles and Transport (CAI)).

### **Smart Meter Communication Licensee Costs**

Has the meaning given to it in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence.

### **Smart Meter Information Technology Costs**

Has the meaning given to it in CRC 2B (Calculation of Allowed Pass-Through Items) of the electricity distribution licence.

### **Smart Metering DCC Non Pass through costs**

Optional data transaction fees related to the use of Smart Meters which are at a DNOs' discretion. These may extend beyond the Smart Meter roll-out period.

## **Smart Meter Installations Carried Out**

Total number of energised Smart Meters installed in the DNOs operating area.

## **Smart Meter Interventions – Extra scheduling and Call centre**

Additional costs of scheduling DNO work and of call centre support generated by the Smart Meter roll-out. These costs are incorporated into the unit cost values defined in the Smart Meter roll-out uncertainty mechanism allowed for under CRC 3E (Smart Meter Roll-out Costs) of the electricity distribution licence.

## **Smart Meter Interventions – Onsite/Physical Activities**

Work undertaken on the DNO's equipment following referral by supplier or representative during the Smart Meter roll-out. The volumes relate to the number of defects rectified.

Onsite/Physical activities include:

- Cut Out Changes (SM)
- Service Inspection (Costs only) (SM)
- Service Alternations (SM)
- Abortive Calls (SM)
- Asbestos Meter Board Replacement (SM)
- Miscellaneous Repairs/Safety Repairs (SM).

## **Smart Meter Interventions – On-site/Physical Activities - Trued Up**

The resulting balance of on-site/physical activities following the application of any prior year restatement to current year values. These values are calculated within the worksheet.

## **Smart Meter Interventions – Prior year restatement - Onsite/Physical Activities**

It is recognised that a proportion of defects classified as ONIs will require to be reclassified as being associated with the Smart Meter roll-out. This arises because supplier and meter operator data flows do not identify that defects are associated with the Smart Meter roll-out and there is a delay between when DNOs rectify a defect and when this can be associated with a Smart Meter. The delay may be several months and therefore an adjustment may be required to previously stated volumes and costs. This adjustment relates to the volume of defects carried out in one Regulatory Year which have been associated with Smart Meters in the following Regulatory Year.

For example it may not be possible to assign a defect carried out in 2015/16 with the Smart Meter roll-out until 2016/17. Where additional Smart Meter Interventions have been identified, the adjustment should be shown as a positive value in worksheet CV34 - Smart Meter Intervention DNO of the Costs and Volumes Reporting Pack. (There will be a corresponding negative adjustment recorded under ONIs).

## Smart Meter Interventions – Smart Meter Registration

Changes to registration systems as part of the Smart Meter roll-out, as identified by the Consequential Changes Working Group. This includes the extension of registration data sets to include new data items required for the roll-out **and to enable communication with the DCC. Costs equate to the cost of modifying the registration system to manage these smart meter specific changes.**

## Smart Meter Interventions – Volume Bands – 1 to 4

The total number of Smart Meter interventions undertaken by the DNO during the whole Smart Meter roll-out, in each of the volume bands described in table 2 of CRC 3E (Smart Meter Roll-out Costs) of the electricity distribution licence.

## Smart Meters

Has the meaning given to it in Condition 1 of the Smart Meter Communication Licence.

## Smart Meter Volume Calculations for Tapering Factor

The Smart Meter roll-out volume driver (allowed for under CRC 3E (Smart Meter Roll-out Costs) in the electricity distribution licence) incorporates tapering factors based upon the proportion of DNO interventions to the total number of Smart Meter installations.

## Sole Use Expenditure on DG Connection Projects

The element of the DG Connection Project that is fully funded by the connecting party.

## Sole Use Expenditure on Metered Connection Projects

The element of the metered Connection Project that is fully funded by the connecting party.

## Sole Use Expenditure on Unmetered Connection Projects

The unmetered Connection Project that is fully funded by the connecting party.

## Span

The portion of overhead line between two overhead line supports (ie poles and towers). The number of spans associated with a double circuit line between two supports (either poles or towers) should be counted as two.

## Span Length Average

The average distance between distribution poles or towers for circuits at the relevant voltages.

## Spans Affected By Trees

Spans where vegetation growth necessitates the undertaking of tree cutting on a periodic basis in order to maintain the clearances specified in ENATS 43-8.

## Spans Cut

The number of overhead line spans where tree cutting is undertaken during the reporting year, in order to ensure that clearances in accordance with ENATS 43-8 are maintained until the span is next cut.

The reporting year in which the overhead line span was inspected in order to determine whether there was a need to undertake tree cutting is irrelevant.

## Spans Inspected (Tree Cutting)

The activity of inspecting overhead line spans to determine or confirm the need to undertake tree cutting along the span or around the support in order to meet the requirements of ENATS 43-8. For each overhead line span inspected there are three possible outcomes from the inspection activity, ie it is determined that it will:

- be necessary to undertake tree cutting in the same reporting year as the inspection activity in order to ensure that clearances, in accordance with ENATS 43-8, are maintained until the span is next cut
- be necessary to undertake tree cutting in a future reporting year in order to ensure that clearances, in accordance with ENATS 43-8, are maintained, or
- not be necessary to undertake tree cutting in order to ensure that clearances in accordance with ENATS 43-8, are maintained until the span is next inspected.

The activity volume to be reported is the total number of overhead line spans inspected to determine or confirm the need to undertake tree cutting in order to meet the requirements of ENATS 43-8, irrespective of the outcome. The reported activity total should include the volume of overhead line spans inspected where the:

- primary objective is to determine or confirm the need to undertake tree cutting, or
- tree cutting inspections are carried out as an integral part of routine overhead line condition inspections. In such circumstances, it is deemed that one of the primary objectives of the routine overhead line inspection is to determine or confirm the need to undertake tree cutting in order to meet the requirements of ENATS 43-8.

The reported activity volume should not include any spans inspected, where the primary objective is NOT to determine or confirm the need to undertake tree cutting in order to meet the requirements of ENATS 43-8. Examples of overhead line inspection activity that should NOT be included are:

- routine safety and security patrols
- inspections undertaken ahead of network investment.

## **Spans Not Affected By Trees**

Spans where there is insufficient vegetation growth to necessitate the undertaking of tree cutting on a periodic basis in order to maintain the clearances specified in ENATS 43-8.

## **Specified Lines**

Refers to the following telephone lines:

- to the published power outage telephone number operated by the DNO or by its appointed agents (or contractors)
- to the safety and security of supplies enquiry service telephone number (if different from the above) operated by the DNO or by its appointed agents (or contractors), and
- to contractors and/or agents of the DNO who act as an overflow or crisis management facility during peak periods.

Where DNOs provide a different emergency telephone number as required by the Electricity Safety, Quality and Continuity Regulations (ESQCR)<sup>5</sup>, this is not included in the definition of specified contact lines.

## **Stakeholder Pension & Personal Accounts**

Forms of defined benefit contribution pension scheme.

## **Standards ('the standards' – for connections)**

The ECDGS (DG standards), ECGS (generation standards) and the SLC 15 standards (those standards of performance specified in accordance with Standard Condition 15 (Standards for the provision of Non-Contestable Connection Services) of the electricity distribution licence). Unless otherwise specified the guidance refers to all of the standards.

## **Stand alone ETR 132**

Work where ETR 132 is the sole driver. For example, there are not further benefits derived in terms of asset replacement or general reinforcement.

## **Standard Deviation of Lives**

The amount of variation around the average asset life as reported in the age profile.

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<sup>5</sup> The Electricity Safety, Quality and Continuity Regulations 2002, No 2665



## Stores

The activity of managing and operating stores, which is reported as an activity within Closely Associated Indirects.

### INCLUDES:

- the management of stores and inventory control
- stock-checkers
- designated storekeepers
- delivery costs (labour and transport) of materials or stock from any store to another store (including central to satellite stores)
- quality testing of materials held in stores
- the value of losses on materials held in stores, including the movements in obsolete stock provisions
- the costs of membership of the "NGT spares club". This subscription allows DNOs access to specialised spares not available on the open market of non-standard high voltage equipment from National Grid, when they are required in a system emergency.

### EXCLUDES:

- Costs of oil or other insulation medium (report under the activity for which it is used, eg maintenance, faults)
- IT and property costs associated with Stores (include in IT & Telecoms and Property Management activities)
- Delivery costs of materials or stock to stores or site from the manufacturer/supplier (include in Materials as part of the direct cost)
- Collection of materials by directly costed field staff from both manned and unmanned stores (include in Labour as part of the direct cost).

## **Strategic Business Plan Development and Implementation - see Engineering Management & Clerical Support**

## Strategic Spares

Items of plant and equipment held specifically to cover emergencies, where the equipment is subject to long delivery lead times or it will not be available in the future and where it is of strategic importance to maintain supplies. Purchase of strategic spares in the year held as stock at the year end.

Temporary towers which can be used on either capex related work or faults and maintenance are analogous to strategic spares.

### EXCLUDES:

- Pole Mounted Transformers.

## Street Works

Activities undertaken by a statutory undertaker which involve the occupation of the highway. Costs and volumes associated with street works include complying with traffic management legislation designed to tackle congestion and disruption to the road network during DNO activities.

It includes Traditional Street Works and Permit and Lane Rental Schemes.

**Traditional Street Works** include the following which are separately defined (with the prefix “Street Works”):

- Notices
- Notice Penalties
- Sample Inspections
- Overstay Fines
- Investigatory Inspections and Penalties
- Congestion Charges
- Street Works Admin.

**Permits and Lane Rental Schemes** include the following which are separately defined (with the prefix “Street Works”):

- Permits
- Permit Penalties
- Permit Condition Costs
- Lane Rentals
- Overstay Fines
- Permit and Lane Rental Set Up Costs
- Permit and Lane Rental Administration Costs.

### **Street Works - Congestion Charges**

Charges paid under congestion charge schemes (such as that operated by Transport for London in London) for the carrying out of Street Works and other operational activities covered by DUoS charges.

### **Street Works – Cost Type**

For the purposes of the Cost and Volumes Reporting Pack, this is a Cost Type.

Costs as defined in Street Works but excluding:

- Street Works Admin
- Permit and Lane Rental Set Up Costs
- Permit and Lane Rental Administration Costs (these are all reported under Engineering Management and Clerical Support).

The costs reported should be net of any Income from Connectee and Penalties Recovered from Contractors (see definitions).

### **Street Works – Existing Lane Rental Scheme**

A lane rental scheme which was implemented as at 1 July 2013 and where the DNO had 12 months of cost data relating to this scheme.

### **Street Works - Existing Permit Scheme**

A permit scheme, (or equivalent if enacted in Scotland), which was implemented as at 1 July 2013 and where the DNO had 12 months of cost data relating to this scheme.

## **Street Works - Income from Connectee**

Income received from the connectee within the reporting year specific to a Street Works.

## **Street Works - Investigatory Inspections and Penalties**

Investigatory inspections (charged to the DNO) undertaken by the highway authority (roads authority in Scotland). Where these inspections reveal defects or inadequacies, the defect process and associated penalties are triggered. These penalties typically relate to signing, lighting or guarding inadequacies or reinstatements that fail to comply with the necessary specification.

## **Street Works - Lane Rentals**

Charges paid to a highway authority (roads authority in Scotland) under Section 74A of NRSWA (or any equivalent provision established for Scotland) requiring undertakers to pay a daily charge for occupation of the highway.

## **Street Works – New Lane Rental Scheme**

A lane rental scheme which was not operational by 1 July 2013 or where the scheme has been implemented by this date but the DNO did not have 12 months of cost data.

## **Street Works - New Permit Scheme**

A permit scheme, (or equivalent if enacted in Scotland), which was not operational by 1 July 2013 or where the scheme has been implemented by this date but the DNO did not have 12 months of cost data relating to the scheme.

## **Street Works - Notices**

An electronic notice required by NRSWA which is sent to a highway authority (roads authority in Scotland) relating to an occupation of the highway. This definition includes all notices (s54, s55 and s57 notices or s113, s114 and s116 in Scotland), registration notifications (s70 or s129 in Scotland) and work start and stop notices (s74 or s133 in Scotland).

For the reporting purposes this category only considers Street Works notices also known as s54, s55, s57, s70 and s74 notices.

EXCLUDES

- Permits.

## **Street Works - Notice Penalties**

Fixed Penalty Notices issued by a highway authority (roads authority in Scotland) if the data in a notification is incorrect or if the notification is sent late. This considers penalties related to notices required under s54, s55, s57, s70, s74 (or s113, s114, s116, s129 and s133 in Scotland) of NRSWA.

## **Street Works - Overstay Fines**

Fines issued by a highway authority (roads authority in Scotland) under Section 74 (Section 113 in Scotland) of NRSWA which allows highway authorities (roads authorities in Scotland) to charge undertakers if Street Works are unreasonably prolonged (ie take longer than previously agreed).

## **Street Works - Penalties Recovered from Contractors**

Income received from the contractor to cover the cost of a penalty initially paid for by the DNO.

## **Street Works - Permit**

An electronic notice required by the Traffic Management Act 2004 (or any equivalent in Scotland as enacted under the Transport (Scotland) Act 2005) which is sent to a highway authority (roads authority in Scotland) in place of a notification in streets which are covered by a permit scheme. The volumes apply to each works reference where work completed during the period. Note: some permits do not have a fee applied.

## **Street Works - Permit and Lane Rental Administration Costs**

The costs from processing Permit and Lane rental applications and processing the payment of associated penalties. These costs are reported in Engineering Management and Clerical Support.

## **Street Works - Permit and Lane Rental Set-Up Costs**

One-off costs of developing the necessary IT system to process Permit and Lane Rental applications and associated penalties. These costs are reported in Engineering Management and Clerical Support.

## **Street Works - Permit Condition Costs**

Additional costs of undertaking works resulting from permit conditions, eg a requirement to work at non-peak times. This includes the costs of codes of practice such as the London Code of Practice. Only incremental costs resulting from the conditions should be reported in this category – any costs that would have been incurred in their absence as part of usual operating practices should not be included.

## **Street Works - Permit Penalties**

Fixed penalty notices issued by a highway authority (roads authority in Scotland), as provided for in the Traffic Management Act 2004 (or equivalent if enacted in Scotland), for working without a Permit or breaching the conditions of the Permit.

## **Street Works - Sample Inspections**

Sample inspections (charged to the DNO) undertaken by the highway authority (roads authority in Scotland). Where these inspections reveal defects or inadequacies, the defect process and associated charges are triggered.

### **Street Works – Street Works Admin**

The cost of processing:

- Notices
- Notice Penalties
- Investigatory Inspections and Penalties
- Overstay Fines
- Congestion Charges.

### **STEPM – See Small Tools, Equipment, Plant and Machinery (Non-Operational)**

## **Substation**

An electrical substation is a subsidiary station of a distribution system where voltage is transformed from high to low or the reverse using transformers and/or where circuit switching takes place.

### **Substation Costs**

The costs associated with:

- Substation civil works
- Safety barriers/signs
- Building painting
- Vegetation management
- Including other costs related to substations other than transformers and switchgear.

### **Substation Electricity**

Electricity consumed (both metered and unmetered) in DNOs' substations.

### **Substation Electricity Costs**

The costs incurred by the DNO for substation electricity usage.

### **Substation Fire Protection**

The provision of fire protection system improvements including emulsifier and inert gas systems but excluding improvements to fire prevention or fire detection systems only.

## **Substation Indoor**

Substation situated inside a Building or enclosure.

## **Substation - Inspections**

Includes the inspection of substation/switching station fencing, buildings, site and assets (HV, EHV, 132kV).

## **Substation Outdoor**

Substation situated outside.

## **Substation Reinforcement**

Reinforcement to address a constraint at a substation.

## **Substation RTU, Marshalling Kiosk and Receivers**

### **Substation RTUs (Remote Terminal Units)**

Communication devices that transmit data used typically for real time network management from substations to a master control system/data logger, but which do not form part network assets.

For these purposes, Substation RTUs excludes the following:

As part of the plant:

- Transducers on the plant
- Control/indication panels and relays
- Wiring from plant to control panel.

As part of the mains:

- Auxiliary cables that form part of a pilot cable or are integral with/supported from a main.

As part of the substation:

- Transducers associated with the substation, eg fire/security alarms and weather stations;
- Dataloggers and statistical metering (for both of the above, the distinction is that these are not directly related to the normal operation of the substation)
- Wiring (if any) from (plant) control panels to RTU and marshalling kiosk.

### **Marshalling Kiosk**

A marshalling kiosk is a protected compartment or container associated with an electrical plant installation and housing terminations for alarms, trips, controls and similar devices fitted to the installation concerned.

### **Receivers**

Communications devices used for the conversion of transmitted signals into a format appropriate for use by Substation RTUs and/or other control hardware.

## Supply Restoration By Onsite Switching Only

Cost category relating to unplanned incidents on the power system voltage network that are resolved by network switching only.

The costs to be recorded include the cost of onsite staff only.

The cost of network switching undertaken by Control Centre staff using SCADA/remote control functionality is excluded.

### Support

A pole or tower designed to support an Overhead Line (OHL) and maintain required clearances. This A Support is different from a Structure when counting assets ( A Structure may comprise multiple supports (poles only).)

INCLUDES:

- wood poles, concrete poles, and steel towers.

### Supranational

A class of assets issued by an international organization, or union, whereby member states transcend national boundaries, eg European Central Bank.

### Surround

A construction, of brick, concrete, steel, wood or any combination of these, which surrounds a substation site or electrical assets within a substation site. Scope of work includes replacement of all or part of the surround.

INCLUDES:

- boundary walls and fences; security fences and gates.

EXCLUDES:

- repair and painting/timber treatment.

### Switchboards/Substation Busbars

A collective term for all switchgear operating at the same voltage and connected to a common busbar at a substation, including both non extensible switchgear and switchboards comprised of extensible switchgear.

Where a substation contains a switchboard, or common busbar, including in item of switchgear which can be operated as an open point, this shall result in a count of 1 switchboard regardless of the normal running arrangement of the switchgear.

'Switchboards/Substation Busbars' at HV shall only consider those associated with 132kV/HV or EHV/HV transforming substations.

### Switched Capacitors

As featured in the transform model developed through the smart grids forum, the LV connected mechanically switched devices as a low cost form of reactive power

compensation. They are used for voltage control and network stabilisation under heavy load conditions.

## Switchgear

A device capable of making, carrying and breaking currents under normal circuit operation but not normally capable of breaking fault current.

Includes switch fuses and pole mounted auto sectionalisers, disconnectors associated with ground mounted switches that permits isolation to be achieved and permanently installed earthing switches on EHV and 33kV outdoor plant. Excludes any Switch that forms part of an RMU (other than for the purposes of the "HV Switchgear (GM) - Distribution" and "EHV Switchgear" Health Index Asset Categories, which do include RMUs).

Switchgear also includes Circuit Breakers.

## Switching Points with Remote Control/Automation Facility

HV circuit breakers and switches which can be operated by means of remote control or automated equipment. This may be affected by the fitting of powered actuators and SCADA to existing a switching point, in which case the CB or switch asset volume would be unchanged, but the count of switching points with remote control/automation facility would increase.

This excludes autoreclose facilities.

The types of switching points are:

- 6.6/11kV and 20kV CB (GM) Primary
- 6.6/11kV and 20kV CB (GM) Secondary
- 6.6/11kV and 20kV RMU (including X-type)
- 6.6/11kV and 20kV CB (PM)
- 6.6/11kV and 20kV Switch (PM)
- 6.6/11kV and 20kV Switch (GM).

## System Mapping

A Closely Associated Indirect activity included in the Core CAI worksheet.

The activity relates to the mapping of the network and operational premises of the network to geographical locations.

INCLUDES:

- Updating the geographical system maps with asset and locational information following the installation, removal or repositioning of system assets
- Updating of GIS records following Ordnance Survey mapping rebasing upgrades
- Responding to Street Works - Notices sent to the DNO by other parties
- Ordnance Survey licence fees
- Provision of maps to third parties as requested.

EXCLUDES:



- Clerical support and administration associated with Street Works (include under Engineering Management and Clerical Support)
- Any employees employed in the Control Centre (include under Control Centre)
- Updating the network control diagram (include under Control Centre);
- On-site collection of asset and locational information where this task is undertaken with the installation of the asset (eg sketches indicating the “as laid” size and route of an HV underground cable) (include as part of the associated direct activity)
- IT and Property costs associated with the System Mapping Activity (include in IT&T and Property Management Indirect Activities).

## T

### Tariff Group

In the context of portfolio billing a “Tariff Group” is a set of common distribution charging methodology tariffs calculated from a single IDNO discount factor within the model and applicable to one or more types of connection point.

### Tax Clawback Calculation

The calculation for the adjustment made to remove the tax benefit to licensees whose gearing level and interest payments are both above that assumed in the price control modelling.

### tCO<sub>2</sub>e

Carbon dioxide (CO<sub>2</sub>) equivalent, measured in tonnes. This is a measure for describing how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of carbon dioxide (CO<sub>2</sub>) as the reference.

### TCPs new - licensee requirement

Transmission Connection Point Charges that are specifically related to a licensee requirement for new TCPs.

### TCPs reinforced - licensee requirement

Transmission Connection Point Charges that are specifically related to a licensee requirement for reinforced TCPs.

### Technical Losses

Electricity units lost owing to the physical properties of the network. This also includes the way the network is configured and operated.

## **Temporary Connection**

A connection (made without using normal switching devices) which is not to become a permanent feature of the distribution system, but which is used solely to provide a temporary restoration of supplies during an incident.

## **Temporary Disconnection**

A deliberate break in the continuity of a circuit, which is not to become a permanent feature of the distribution system, but is used solely to facilitate the temporary restoration of supplies during an incident.

## **Temporary Supply Arrangement**

The use of temporary connections, temporary disconnections or mobile generation in order to provide temporary restoration of supplies during an incident.

## **Third Party Cable Damage**

Damage caused by third parties to cables or equipment for which a recovery of costs is made and which are not Non Trading Rechargeables (DRS5 & DRS6).

## **Tidal Stream & Wave Power**

A category of DG. Electricity generation using tidal flows or wave power.

## **Tier 1 Network Output Measure**

High level system wide network risk metrics, derived from an amalgamation of well-defined, established and consistently reported site or asset-specific metrics.

## **Tier 2 Network Output Measure**

Site or asset-specific metrics which capture factors that impact on performance and/or the relative level of risk for the asset or site in question (eg metrics collating asset condition and health information).

## **Tier 3 Network Output Measure**

Low-level metrics capturing volumes of activity (eg number of assets installed).

## **TMA – Traffic Management Act 2004**

## **Top-up, Standby and Enhanced System Security - see DRS4. Top-up, Standby, and Enhanced System Security**

## **Total Costs Incurred in Respect of Relevant Theft of Electricity**

The estimated total costs incurred related to instances investigated to costs to recover monies in respect to 'relevant theft of electricity' as defined in Standard Condition 1 of the electricity distribution licence.

## **Total Number of Customers**

The total number of customers whose supplies are connected to the DNO's distribution network as at 30 September in the relevant reporting year.

## **Total Number of Disconnected Customers**

The total number of customers whose supplies have been disconnected between 1 October in the previous year and 30 September in the relevant year.

New and disconnected customers should be identified from MPANs such that the number of new and disconnected customers corresponds with the number of new and disconnected connection points on the distribution system.

## **Total Number of New Customers**

The total number of new customers whose supplies have been connected between 1 October in the previous year and 30 September in the relevant year.

## **Totex**

The aggregate net network investment, net network operating costs and indirect costs, less cash proceeds of sale of assets and scrap, DRS.8 Value added Services (net) and income from theft recovery.<sup>6</sup>

It includes the following which are all defined:

- Load Related Capex
- Non-Load Related Capex – Asset Replacement
- Non-Load Related Capex – Other
- Faults
- Tree Cutting
- 100% Revenue Pool Expenditure
- Controllable Opex.

## **Totex Incentive Mechanism (TIM)**

Applies adjustment to the Totex figure to incentivise efficient overall total expenditure. It does this by sharing any over or under spend between the DNOs and Customers.

Each DNO will have a fixed efficiency incentive rate for the duration of RIIO-ED1.

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<sup>6</sup> The adjustments for cash proceeds from sale of assets and scrap and DRS8. Value added Service (net) do not apply to Western Power Distribution owned DNOs.

## Traffic Lights

Traffic lights means equipment providing standard 'red, amber, green' signals to vehicular traffic using the public highway.

## Transformer

A device that is used to "transform" voltage from one level to another, usually from a higher voltage to a lower voltage.

## Transmission Connection Point (TCP)

A point of supply from the GB Transmission System to the DNO's distribution system.

## Transmission Connection Point Charges

Means the sum of:

- charges payable by the licensee that are levied by a Transmission Licensee as connection charges by direct reference to the number or nature of connections between the licensee's Distribution System and the GB Transmission System, and includes any associated transmission use of system charges and any remote Transmission Asset Rentals payable by the licensee.
- charges payable by the licensee to another Authorised distributor in respect of units transported from that person's network.

Transmission Connection Point Charges include:

- all charges payable by the licensee to a transmission licensee relating to the number or nature of connections between the licensee's distribution system and the transmission licensee's system
- all charges payable by the licensee to a transmission licensee for use of the transmission system or for remote transmission asset rental
- all charges payable by the licensee to another distribution licensee for the transportation of units to an entry point on the licensee's system, for onward distribution to premises connected to the licensee's system ('wheeled unit' charges).

The charge can be split into:

- Pass-through Transmission Connection Point Charges
- New Transmission Capacity Charges.

## Tree Cutting

The activity of physically felling or trimming vegetation from around network assets.

INCLUDES:

- The felling or trimming of vegetation to meet ENATS 43-8 & ETR 132 requirements.

- The inspection of vegetation cut for the sole purpose of ensuring the work has been undertaken in an appropriate manner.
- Inspection of tree-affected spans where included as part of a tree cutting contract.

**EXCLUDES:**

- The costs of felling or trimming of vegetation as part of a Capital Scheme, (costs remain with the driver for works which necessitated the installation of the asset/tree cutting).
- General inspection costs relating to wires that are subject to vegetation and not performed solely as part of a tree cutting contract or to ensure vegetation has been cut appropriately (include under Inspections & Maintenance).
- Costs of assessing and reviewing the tree cutting policy (include under Network Policy).
- Data collection and manipulation relating to vegetation (include under Network Design & Engineering).
- The cost of managing the tree cutting contract, except as stated above
- The cost of procuring the tree cutting contract except as stated above (include under Finance & Regulation).

## **Tree Cutting Cycle**

The number of years for a DNO to complete tree cutting across their total overhead network, at each voltage, in accordance with their proactive tree cutting policy to meet the clearance specified in ENATS 43-8.

## **Tree Cutting Policy**

Policy that should represent the DNOs overall approach to tree cutting at each voltage. There are two overall approaches:

- proactive - a cyclic (periodic) programme for ensuring that the clearances specified in ENATS 43-8 are maintained
- reactive - an approach where tree cutting to maintain the clearances specified in ENATS 43-8 is undertaken on as found basis.

## **Tree Cutting: ENATS 43-8**

Tree cutting activity undertaken to meet the clearance requirements of ENATS 43-8.

## **Tree Cutting: ETR 132**

Tree cutting activity undertaken to improve network resilience under Engineering Technical Recommendation 132 (ETR 132).

## **Triennial Valuation (pensions)**

Under the Pensions Act 2004, specifically refers to a written report prepared and signed by the scheme actuary, valuing the schemes assets and calculating its technical provisions.

## Troublecall

The activity relating to the resolution of Troublecall occurrences.

### INCLUDES:

- Site visits
- Network operations
- Issue of safety documentation
- Identification of the precise location of a failed asset
- Physical repairs to assets (including third party damage)
- Establishing temporary supply arrangements (as defined for Interruptions reporting)
- For incidents which affect assets, the activity includes the repair and any subsequent work required to restore the faulted equipment back to pre-fault availability and, if applicable, the restoration of supply.

### EXCLUDES:

- the planned replacement of assets because of their condition and/or performance history (include in CV7 - Asset Replacement)
- planned incidents (including the replacement/repair of assets) where the DNO has given the required notification to customers of any outage
- any subsequent maintenance work identified and planned at the time of resolving the Troublecall occurrence but not related to the occurrence itself (include in CV31 - Repairs and Maintenance)
- resolving failures on the DNO's SCADA and Telecontrol networks.

## Troublecall Occurrences

Occurrences relating to loss of supply, distribution system abnormality or suspected distribution system abnormality that have been brought to a DNO's attention by:

- reports by third parties
- reports by DNO employees or agents
- the operation of alarms.

Troublecall Occurrences will be logged in the Safety and Security of Supplies Enquiry System required under Standard Condition 8 (Safety and Security of Supplies Enquiry Service) of the electricity distribution licence. In some limited cases DNO may use other systems to manage similar but less urgent issues.

Troublecall Occurrences are grouped into two generic categories:

- faults (unplanned incidents incentivised under CRC 2D(Adjustment of licensee's revenues to reflect interruptions-related quality of service performance) of the electricity distribution licence)
- occurrences not incentivised.

## Type 1 Refurbishment

Refurbishment activities that, if the licensee were to agree (either currently, or in the future) a Network Asset Secondary Deliverable for the relevant asset type, would relate to interventions that would be included in the measure of delivery of the Network Asset Secondary Deliverables.

## **Type 2 Refurbishment**

Refurbishment activities that, if the licensee were to agree (either currently, or in the future) a Network Asset Secondary Deliverable for the relevant asset type, would relate to interventions that are not included in the measure of delivery of the Network Asset Secondary Deliverables.

## **U**

### **UG Cables (CONSAC)**

Buried cables made from concentric aluminium cable (CONSAC).

### **UG Cable (Oil & Gas) - Decommissioned**

A UG cable (Gas) or UG cable (Oil) that has been de-energised and disconnected from the network.

Such cable may be kept pressurised if there is a foreseeable re-use, but normally it is de-pressurised, drained and flushed (in the case of oil cable) and capped.

Decommissioned cable has not been physically removed from the environment, and it remains an asset management liability due to its potential to cause harm to the environment if residual oil escapes from the cable.

### **UG Cables Installed During Year (km)**

Energisation of underground cables, measured in km, that have replaced OHL removed during the year under the Visual Amenity Allowance scheme.

### **Underground Cables**

Buried cables. Underground power cables are often used in densely populated areas or where the use of overhead lines is not suitable.

### **Underground Cables - Inspections**

INCLUDES:

- monitoring of pressurised cables and pressurising plant and equipment (HV, EHV, 132kV).

EXCLUDES:

- cable testing and inspections of cable tunnels and bridges.

### **Underground Cable and Services Other - Inspections**

Includes the inspection of LV Main (UG Consac), LV Main (UG Plastic), LV Main (UG Paper), and LV Service (UG).

## **Underground Services**

The cables used to distribute electricity from the mains network to individual customers or groups of customers.

## **Undergrounding**

The process of replacing overhead power cables with buried electricity distribution cables.

## **Undergrounding for Visual Amenity**

The activity of undergrounding overhead lines in non-designated areas when the primary driver is the reduction of their visual impact on the landscape, which was not undertaken under the Visual Amenity Allowance.

## **Undrawn Facilities**

Loan/credit facilities that are available to an entity but which have not been utilised.

## **Units Consumed**

Is the total electricity consumed (both metered and unmetered) at a DNO's substations in MWh.

## **Units Entering System**

Units entering (System Entry Volumes) a DNO's network take account of all sources of energy entering the network at different types of network connection point.

## **Units Exiting System**

Units exiting (Units Distributed) a DNO's network take account of all sources and uses of energy exiting the network at different types of network connection point.

## **Unmetered Connection Category**

The reporting categories required for each unmetered Connection Project for the purposes of the Connections Reporting Pack. They include:

- Unmetered DPCR4
- Unmetered Local Authority Connections
- Unmetered Connections provided under Private Finance Initiative
- Other Unmetered Connections (non-LA or PFI).

## **Unmetered Connection Work**

Is made up of:

- Work – Provision of end connection
- Work – Transfer



- This refers to occurrences of a service cable being transferred from one street lighting column/ equivalent to another by the party in the “connected for” column. Although the service cable is usually cut and replaced by a new cable to the new column, this service should be counted as 1 transfer rather than 1 disconnection and 1 reconnection.
- Work – Disconnections
  - This refers to disconnections of service cables for each party in the “connected for” column. This quantity should NOT include any service cable disconnections provided as part of a service cable transfer.

## Unmetered Services Included in the Quote

Where the quotation for a Connection Project includes any unmetered connection work, the number of unmetered connection works (provision of points of connection, transfers and disconnections) should be recorded.

## Unmetered Standards

The following standards - ECGS 8A, 8B, 8C, 8D, 8E, 9, 10A and 10B. These, measured quarterly, in aggregate have a 90% performance standard set in Standard Condition 15A (Connection Policy and Connection Performance) of the electricity distribution licence.

## Unmitigated Flooding Risk at 31 March 2015 at Forecast Level of Expenditure

The flooding risk, as defined in this glossary, for sites that will not be mitigated for flood damage before 1 April 2015, based on current forecasts and expenditure arrangements.

## Unplanned Incident

Any incident arising on the licensee’s distribution system, where statutory notification<sup>7</sup> has not been given to all customers affected at least 48 hours before the commencement of the earliest Interruption (or such notice period of less than 48 hours where this has been agreed with the customer(s) involved).

Unplanned Incidents are incentivised under CRC 2D (Adjustment of licensee’s revenues to reflect interruptions-related quality of service performance) of the electricity distribution licence.

Unplanned Incidents are disaggregated into:

- LV Services (excluding cut out incidents) Overhead
- LV Services (excluding cut out incidents) Underground
- LV Network Supply Restoration by Switching Only (Non Damage Fault)

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<sup>7</sup> Regulation 14 of the Electricity (Standards of Performance) Regulations 2010.

- LV Network UG Cables (Non CONSAC) - Asset Repair/Replacement Required
- LV Network UG Cables (CONSAC) - Asset Repair/Replacement Required
- LV Network OH Lines - Asset Repair/Replacement Required
- LV Network All Other Switchgear, Plant & Equipment (excluding link boxes)- Asset Repair/Replacement Required
- LV Network Plant & Equipment LV link boxes only
- HV Network (11kV & 20kV) Supply Restoration by Switching Only (Non Damage Fault)
- HV Network (11kV & 20kV) UG Cables - Asset Repair/Replacement Required
- HV Network (11kV & 20kV) OH Lines - Asset Repair/Replacement Required
- HV Network (11kV & 20kV) Pole Mounted Switchgear Circuit Breakers - Asset Repair/Replacement Required
- HV Network (11kV & 20kV) Pole Mounted Switchgear (All Types ex CB) Asset Repair/Replacement Required
- HV Network (11kV & 20kV) Pole Mounted Transformers - Asset Repair/Replacement Required
- HV Network (11kV & 20kV) All Other Plant and Equipment (inc GM transformers) - Asset Repair/Replacement Required
- EHV Network (22kV, 33kV & 66kV) Supply Restoration by Switching Only (Non Damage Fault)
- EHV Network (22kV, 33kV & 66kV) UG Cables (Pressure Assisted) - Asset Repair/Replacement Required
- EHV Network (22kV, 33kV & 66kV) UG Cables (Non Pressure Assisted) - Asset Repair/Replacement Required
- EHV Network (22kV, 33kV & 66kV) OH Lines - Asset Repair/Replacement Required
- EHV Network (22kV, 33kV & 66kV) All Other Plant and Equipment - Asset Repair/Replacement Required
- 132kV Network Supply Restoration by onsite switching only
- 132kV Network UG Cables (Pressure Assisted) - Asset Repair/Replacement Required
- 132kV Network UG Cables (Non Pressure Assisted) - Asset Repair/Replacement Required
- 132kV Network OH Lines - Asset Repair/Replacement Required
- 132kV Network All Other Plant and Equipment - Asset Repair/Replacement Required
- HV Network (11kV & 20kV) Submarine Cables - Asset Repair/Replacement Required
- EHV Network (22kV, 33kV & 66kV) Submarine Cables - Asset Repair/Replacement Required
- 132kV Network Submarine Cables - Asset Repair/Replacement Required.

## **Unregulated Margin – see Margin**

### **Unregulated Margin Period**

The period or periods in which DNOs are permitted/choose to apply the Regulated Margin.

## Upgrading Connection Projects

The upgrading of existing MPANs/points of connection without the provision of new MPANs/points of connection and must qualify as achieving either of the following:

- Increase the capacity available to an existing MPAN/point of connection of the DNO network
- Allowing an existing MPAN/point of connection to be able to feed a supply of electricity to a DNO network.

## Use of System (UoS) Charges

Has the meaning given to it in Standard Condition 1 of the electricity distribution licence.

## Use of System Bad Debts

A bad debt arising specially for Use of System Charges.

## Use of System Capex for DG

The amount of Total Capex for DG that is not remunerated through connection charges payable to the licensee exclusive of the incremental costs in excess of the high-cost project threshold (as set out in the licensee's connection charging methodology in place on or after 1 April 2010).

## V

## Variant Costs

Costs which are subject to uncertainty mechanisms.

## Vehicles and Transport (Non-Operational)

Expenditure on new and replacement wheeled vehicles and generators which are not system assets but are utilised by the DNO or any other Related Party for the purposes of providing services to the DNO.

INCLUDES:

- Commercial vehicle fleet
- Mobile plant for example:
  - Mobile compressors
  - Cranes
  - Excavators
  - Dumpers
  - Trailers
  - Drum trailers
  - Wheel mounted winches
  - Hiab vehicles and accessories
  - All terrain vehicles
  - Water pumping vehicles

- Generators, which include wheel mounted and non-wheel mounted generators used to power the network and small portable generators, used to power tools.
- The labour costs of fuelling unfuelled generators.

EXCLUDES:

- company cars (except where included under the labour cost)
- Fork lifts (include in stores)
- Fuel costs for wheeled vehicles and generators (report in Vehicles and Transport (CAI)).

## Vehicles and Transport (CAI)

The Closely Associated Indirect activity associated with managing, operating and maintaining the commercial vehicle fleet and mobile plant utilised by the DNO or any other Related Party for the purposes of providing services to the DNO.

INCLUDES:

- Lease costs associated with the vehicle fleet and mobile plant
- Insurance premiums associated with leased commercial fleet vehicles where the costs of the premiums are embedded in the lease charges
- Maintenance costs of the vehicle fleet and mobile plant, including mobile generation
- Cost of accident repairs to DNO's own commercial fleet vehicles where the cost is borne directly by the DNO
- Cost of accident repairs to commercial fleet vehicles leased by the DNO, where the cost is borne directly by the DNO
- Fuel costs of the vehicle fleet (including generators) and mobile plant, irrespective of whether the vehicle fleet and mobile plant is owned by the DNO or leased by the DNO, except where leased generators are fully fuelled and manned from contractors (report in the relevant direct activity).

EXCLUDES:

- Direct field staff time spent on utilising the vehicles for a direct cost activity (include under Direct Activities)
- IT and property costs associated with vehicle management (include as IT and property respectively)
- Purchase of vehicles, mobile plant and equipment (include as Vehicles and Transport (Non-Operational))
- Cost of providing company cars to employees which are benefits in kind (include as labour cost under the relevant activity of that employee)
- Costs recovered in respect of accident repairs from insurance companies (include as Finance and Regulation)
- Insurance premiums associated with commercial fleet that are not embedded in the lease cost (include as Insurance Totals in Core Business Support)
- Fuel costs of leased generators where leased generators are fully fuelled and manned from contractors (report in the relevant direct activity).

## **Vertical Clearance**

The vertical distance between an overhead line, the ground or a building or structure.

## **Visual Amenity Allowance**

The mechanism for funding Visual Amenity Projects provided for in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

## **Visual Amenity Expenditure**

The actual expenditure on Visual Amenity Projects under the Visual Amenity Allowance funding mechanism described in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence, in any Regulatory Year.

## **Visual Amenity Inside Designated Areas**

Activity undertaken as part of a Visual Amenity Project funded under the Visual Amenity Allowance funding mechanism described in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence. It relates to overhead distribution assets located within a Designated Area.

## **Visual Amenity Outside Designated Areas**

Activity undertaken as part of a Visual Amenity Project funded under the Visual Amenity Allowance funding mechanism described in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence. It relates to overhead distribution assets which form part of an overhead line which spans the boundary of a Designated Area and is located outside the boundaries of the DNO's Designated Area, for which up to 10% of the Visual Amenity Allowance funding mechanism may be used.

## **Visual Amenity Projects**

Has the meaning given to it in CRC 3J (Allowed expenditure on Visual Amenity Projects) of the electricity distribution licence.

## **W**

## **Waste Incineration (not CHP)**

A category of DG. Electricity generation from burning waste, but not including combined heat and power plants.

## **Wayleaves**

An activity included within Closely Associated Indirects, incorporating the following sub-activities:

- Wayleave Payments (as defined in the glossary)
- Wayleaves and Easements/Servitudes: Admin Cost (as defined in the glossary).

## **Wayleaves and Easements/Servitudes Admin Costs**

A sub-activity of the 'Wayleaves' Indirect activity included with Closely Associated Indirects.

INCLUDES:

- Obtaining, managing and administering Wayleaves, substation rents, easements and servitudes
- Negotiating new Wayleaves
- Managing Wayleave terminations
- Administration of existing Wayleaves including the preparation of payments
- Negotiating conversions from Wayleave arrangements to permanent easement/ Servitudes, substation rents and Wayleave payments
- Provision of legal services relating to wayleaves /easements/servitudes.

## **Wayleaves (inc. Easements/Servitudes)**

Cost Type for reporting payments of wayleaves and easements / servitudes.

These are payments to owners and/or occupiers to cover the financial impact of having equipment on their land and for access to that equipment:

- Wayleaves - Access to property granted for up to one year
- Easements/Servitudes - An interest in land owned by another that entitles its holder to a specific limited use of that land over an unrestricted time. Easements (England & Wales), Servitude (Scotland).

For the purpose of the Costs and Volumes RIGs (Annex B), this cost type also includes the payments of substation rents.

## **Wayleaves Payments**

A sub-activity of the 'Wayleaves' Indirect activity included with Closely Associated Indirects.

INCLUDES:

- Annual payments made in advance to the owner and/or occupier to cover the financial impact of having equipment on their land and for access to that equipment;
- Cost of substation rent payments.

EXCLUDES:

- Purchase of easements / servitudes (include as Diversions or as relevant Connections activity within or outside price control).

## **Works required by an alteration of premises – see DRS3.Works Required by an Alteration of Premises**

## **Worst Served Customers (WSC)**

There are two definitions that will apply during RIIO-ED1:

- the DPCR5 definition that is used for the reporting of post WSC Scheme completion network performance for WSC Schemes carried out during DPCR5
- the ED1 definition that applies to reporting of WSC Schemes carried out during RIIO-ED1.

DPCR5 definition is customers experiencing 15 or more higher voltage unplanned Interruptions over a three year period, with a minimum of three higher voltage unplanned Interruptions in each year.

RIIO-ED1 definition is Customers experiencing 12 or more higher voltage unplanned Interruptions over a three year period, with a minimum of three higher voltage unplanned Interruptions in each year.

### **WSC - Calculated Number of Customers Interrupted in Reference Period**

The number of customers interrupted, in each year in the reference period, for each substation/individual customer. It is derived from the product of the number of incidents in the reference period and the number of Worst Served Customers on the substation/individual customer expected to benefit from the WSC Scheme. This is calculated in the Costs and Volumes Reporting Pack.

### **WSC - Calculated Number of Customers Interrupted Post Scheme Completion**

The number of customers interrupted, in each year after the year in which the scheme is technically completed, for each substation/individual customer. It is derived from the product of the number of incidents in each year after the year in which the scheme is technically completed and the number of Worst Served Customers on the substation/individual customer expected to benefit from the WSC Scheme. This is calculated in the Costs and Volumes Reporting Pack.

### **WSC - Circuit Reference Number**

A unique identification number for a circuit on a DNO's distribution system.

### **WSC - Feeder Name/Ref**

Name or reference number of the feeder that the Worst Served Customers are connected to.

### **WSC - Improvement Qualifies for Revenue Recovery**

Calculated based on “% improvement scheme (post scheme actual vs reference period)” to determine whether the WSC Scheme has delivered the required performance improvement as per “Performance Improvement Target from CRC 3H”.

It only determines a statement once sufficient time has elapsed to make an assessment and returns either “yes” or “no”.

### **WSC - Number of Customers Expected to Benefit**

The number of customers who are expected to benefit from the Worst Served Customer schemes being undertaken.

### **WSC – Number of Higher Voltage Customers Interrupted in the WSC Reference Period**

The total number of customers interrupted, in each year of the reference period, for all the substations/individual customers that are impacted by the same WSC Scheme. It is derived by using the Scheme id as a link between the scheme data and the substation/individual customer data in “Calculated number of customers interrupted in reference period”. It is used in the calculation of the percentage improvement in performance. This is calculated in the Costs and Volumes Reporting Pack.

### **WSC - Number of Higher Voltage Customers Interrupted Post Scheme Completion**

The total number of customers interrupted, in each year after the year in which the scheme is technically completed, for all the substations/individual customers that are impacted by the same WSC Scheme. It is derived by using the Scheme id as a link between the scheme data and the substation/individual customer data in “Calculated number of customers interrupted post scheme completion”. It is used in the calculation of the percentage improvement in performance. This is calculated in the Costs and Volumes Reporting Pack.

### **WSC - Number of HV+ Incidents Post Scheme Completion**

The number of HV and above incidents which have occurred at the substation/for the individual customer after the scheme has been technically completed.

Data entry is only required for the three years after the year in which the project was technical completed. For example if the Year Project Completed is 2016 (for 2015-16), the data entry of HV and above incidents is for 2016-17, 2017-18 and 2018-19.

### **WSC – Number of HV+ Incidents Within the Reference Period**

The number of HV and above incidents which have occurred on each substation/for each individual customer during the three year reference period.

Data only needs to be entered for the three years that constitute the Reference Period.

### **WSC - Number of Worst Served Customers on Feeder**

The number of Worst Served Customers on the feeder where work is being undertaken and is linked to the Scheme's id/project number.



## **WSC - Number of Worst Served Customers on Substation**

The number of Worst Served Customers on the Substation.

## **WSC - Performance Improvement Target from CRC 3H**

The performance improvement that is required in order for DNOs to recover the costs of carrying out the WSC Scheme.

In DPCR5 its value is 25%. In RIIO-ED1 it is the value specified by each DNO (which is supported by stakeholders) recorded in CRC 3H (Allowed expenditure on improving services to Worst Served Customers) of the electricity distribution licence.

## **WSC - Primary Name**

The name of the primary substation upstream of the Worst Served Customers.

## **WSC - Schemes**

Schemes that are undertaken to reduce the average number of higher voltage Interruptions experienced by Worst Served Customers.

The associated funding mechanism requires that the performance improvement meets a predetermined criterion. In DPCR5, the number of higher voltage faults had to reduce by 25%. In ED1, DNOs have been allowed to specify their own level of performance improvement (which had to be supported by the DNO's stakeholders). These ED1 values are recorded in Licence Condition CRC 3H (Allowed expenditure on improving services to Worst Served Customers) of the electricity distribution licence.

## **WSC - Scheme ID (Project Number)**

A unique DNO reference for the Worst Served Customer scheme being undertaken.

## **WSC - Secondary Substation (name)/Customer Details**

The name of the secondary substation upstream of the Worst Served Customers, which was used to identify customers as being worst served, or the individual Worst Served Customer's details for the incidents that were used to identify an individual customer as being worst served.

## **WSC - Secondary Substation Ref/Customer Ref**

The unique reference used by the DNO to identify the secondary substation upstream of the Worst Served Customers or the unique reference used to identify an individual Worst Served Customer, and is related to the name used in "Secondary Substation (name)/Customer Details".

## **WSC - Start of reference Period**

The Regulatory Year corresponding to the first year of the reference period that defines customers as being worst served (eg 2014 for 2013/14).

As an illustration, a reference period that was specified as 2014 would use incident data from 2013/14, 2014/15 and 2015/16 to show that the customers benefitting from a Worst Served Customer scheme meet the relevant definition of a Worst Served Customer.

### **WSC - Type of Scheme (Brief Description of Work Done)**

A brief description of the work being undertaken as part of the scheme (eg line refurbishment, undergrounding, additional network automation).

### **WSC - Year Project Completed**

The Regulatory Year corresponding to the year that the project was technically completed (eg 2017 for 2016-17).

### **WSC - % Improvement Scheme (Post Scheme Actual vs Reference Period)**

The percentage reduction in the number of customers interrupted as a consequence of having carried out the WSC Scheme.

Where insufficient time has elapsed since the WSC Scheme was technical completed the calculation will return the message “too early”. This is calculated in the Costs and Volumes Reporting Pack.

**X**

**Y**

**Z**

### **Zero Margin Period**

The period, or periods, that a DNO is unable to retain any margin on connections work.

## 3. Numerical definitions

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### **100% 'revenue pool' expenditure**

This is a PCFM Cost Type, which reports Pension costs which have been stripped out from all of the other six PCFM Cost Types, which are:

- Load Related Capex
- Non-Load Related Capex - Asset Replacement
- Non-Load Related Capex - Other
- Faults
- Tree Cutting
- Controllable Opex.

### **4% Regulated Margin Period**

For the purposes of connections reporting, the period of time within which the 4% Regulated margin is applied to the Contestable element of connection that is sole use funded.

### **6.6/11kV CB (GM) Primary**

Includes - all Ground mounted Circuits Breakers (both indoor and outdoor) which form the switchboard associated with a 132kV/HV or EHV/HV transforming substation. For example a circuit breaker switchboard comprising two transformer incomers, a bus-section and a number of feeder circuit breakers.

### **6.6/11kV CB (GM) Secondary**

6.6 or 11kV Circuit Breaker (Ground Mounted)

Includes - all Ground mounted Circuit Breakers (both indoor and outdoor) which do not form part of a 132kV/HV or EHV/HV transforming substation switchboard.

### **6.6/11kV CB (PM)**

6.6 or 11kV Circuit Breaker (Pole Mounted)

Includes - all Pole mounted Circuit Breakers and Auto Reclosers.

### **6.6/11kV OHL (BLX or similar Conductor)**

6.6kV or 11kV Overhead Line with covered conductor

Includes - all forms of covered construction for example lines constructed to ENA TS 43-121, ie single circuit overhead lines of compact covered construction on wood poles for use at high voltage (eg BLX).

Excludes - any associated poles.

## **6.6/11kV OHL (Conventional Conductor)**

6.6kV or 11kV Overhead Line with Open Wire Construction

Includes - all forms of open wire construction. Depending on how data are extracted from the DNOs' asset registers this may also include short spans of covered conductor (as required for reasons of safety) which form part of a line of otherwise conventional open construction.

Excludes - any associated poles.

## **6.6/11kV Poles**

6.6kV or 11kV Overhead Line Pole

Includes - supports constructed of wood, concrete or steel (both single and double circuits).

## **6.6/11kV RMU**

A 6.6/11kV Ring Main Unit is a non-extensible item of switchgear generally comprising two switches and a switchfuse or circuit breaker, supplied as a single item of switchgear.

Excludes - 6.6/11kV X-type RMU.

## **6.6/11kV Switch (GM)**

Ground Mounted 11/6.6kV Switches & Fuse Switches (both indoor and outdoor) that do not form part of a Ring Main Unit.

## **6.6/11kV Switch (PM)**

Includes - 6.6 and 11kV pole mounted switches that contain an insulation medium other than air.

Excludes - air break isolators, line sectionalisers, links, fuses and other pole mounted plant insulated only by air.

## **6.6/11kV Switchgear - Other (PM)**

6.6 and 11kV pole mounted switches that have only air as an insulation medium

Includes - air break isolators, line sectionalisers, links, fuses and other pole mounted plant insulated only by air.

## **6.6/11kV Transformer (GM)**

Ground Mounted Power Transformer with a primary winding voltage of 6.6 or 11kV

Includes - 6.6 and 11kV reactors & regulators.

## **6.6/11kV Transformer (PM)**

Pole Mounted Power Transformer with a primary winding voltage of 6.6 or 11kV

Includes - 6.6 and 11kV reactors & regulators.

## **6.6/11kV UG Cable**

6.6/11kV Underground Cable

Includes - all design types of Underground Cable.

## **6.6/11kV X-type RMU**

A 6.6/11kV Ring Main Unit generally used on interconnected networks with unit type protection, consisting of two switches, one of which controls a transformer and one of which controls a feeder circuit, and a circuit breaker to control the second feeder circuit.

## **20kV CB (GM) Primary**

20kV Circuit Breaker (Ground Mounted)

Includes - all Ground mounted Circuits Breakers (both indoor and outdoor) which form the switchboard associated with a 132kV/HV or EHV/HV transforming substation. For example a circuit breaker switchboard comprising two transformer incomers, a bus-section and a number of feeder circuit breakers.

## **20kV CB (GM) Secondary**

20kV Circuit Breaker (Ground Mounted)

Includes - all Ground mounted Circuit Breakers (both indoor and outdoor) which do not form part of a 132kV/HV or EHV/HV transforming substation switchboard.

## **20kV CB (PM)**

20kV Circuit Breaker (Pole Mounted)

Includes - all Pole mounted Circuit Breakers and Auto Reclosers.

## **20kV Overhead Line Conductor – Open Wire Construction**

Includes - all forms of open wire construction. Depending on how data are extracted from the DNOs' asset registers this may also include short spans of covered conductor (as required for reasons of safety) which form part of a line of otherwise conventional open construction.

Excludes - any associated poles.

## **20kV OHL (BLX or similar Conductor)**

20kV Overhead Line Conductor – Covered Construction

Includes - all forms of covered construction for example lines constructed to ENA TS 43-121, ie single circuit overhead lines of compact covered construction on wood poles for use at high voltage (eg BLX).

Excludes - any associated poles.

### **20kV Poles**

6.6kV or 11kV Overhead Line Pole

Includes - supports constructed of wood, concrete or steel (both single and double circuits).

### **20kV RMU**

A 20kV Ring Main Unit is a non-extensible item of switchgear generally comprising two switches and a switchfuse or circuit breaker, supplied as a single item of switchgear.

### **20kV Switch (GM)**

Ground Mounted 20kV Switches & Fuse Switches (both indoor and outdoor) that do not form part of a Ring Main Unit.

### **20kV Switch (PM)**

Includes - 20kV pole mounted switches that contain an insulation medium other than air.

Excludes - air break isolators, line sectionalisers, links, fuses and other pole mounted plant insulated only by air.

### **20kV Switchgear - Other (PM)**

20kV pole mounted switches that have only air as an insulation medium

Includes - air break isolators, line sectionalisers, links, fuses and other pole mounted plant insulated only by air & Automatic Sectionalising Links'.

### **20kV Transformer (GM)**

Ground Mounted Power Transformer with a primary winding voltage of 20kV

Includes - 20kV reactors & regulators.

### **20kV Transformer (PM)**

Pole Mounted Power Transformer with a primary winding voltage of 20kV

Includes - 20kV reactors & regulators.

### **20kV UG Cable**

20kV Underground Cable

Includes - all design types of Underground Cable.

### **33kV CB (Air Insulated Busbars) (ID) (GM)**

33kV (includes 22 & 25kV) Ground Mounted Circuit Breaker situated indoor

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation.

Excludes - CB that form part of a RMU.

### **33kV CB (Air Insulated Busbars) (OD) (GM)**

33kV (includes 22 & 25kV) Ground Mounted Circuit Breaker situated outdoor

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (ID) (GM)**

33kV (includes 22 & 25kV) Ground Mounted Circuit Breaker situated indoors

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (ID) Single Busbar (GM)**

33kV (includes 22 & 25kV) Ground Mounted single busbar Circuit Breaker situated indoors

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (ID) Double Busbar (GM)**

33kV (includes 22 & 25kV) Ground Mounted double busbar Circuit Breaker situated indoors

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (OD) (GM)**

33kV (includes 22 & 25kV) Ground Mounted Circuit Breaker situated outdoor

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (OD) Single Busbar (GM)**

33kV (includes 22 & 25kV) Ground Mounted single busbar Circuit Breaker situated outdoor

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV CB (Gas Insulated Busbars) (OD) Double Busbar (GM)**

33kV (includes 22 & 25kV) Ground Mounted double busbar Circuit Breaker situated outdoor

Includes - all CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

Excludes - CB that form part of a RMU.

### **33kV Fittings**

Includes - insulators and fittings on OH tower lines

Excludes - insulators and fittings associated with OH pole lines. Measured per set (ie one per circuit per tower).

### **33kV OHL (Pole Line) Conductor**

33kV (includes 22 & 25kV) Overhead Line Conductor – Pole Line

Includes - all conductor strung on poles, single and double circuits, open wire and covered conductor.

Excludes - Conductor strung on a Tower Line and any associated poles.

### **33kV OHL (Tower Line) Conductor**

33kV (includes 22 & 25kV) Overhead Line Conductor – Tower Line

Includes - all conductor strung on towers, single and double circuits.

Excludes - Conductor strung on a Pole Line and any associated fittings and towers.

### **33kV Pole**

33kV (includes 22 & 25kV) Overhead Line Pole

Includes - poles constructed of wood or concrete and small footprint steel masts (both single and double circuits).

Excludes - Steel lattice towers.

66kV Overhead Line Conductor – Pole Line

Includes - all conductor strung on poles, single and double circuits, open wire and covered conductor.



Excludes - Conductor strung on a Tower Line and any associated poles.

### **33kV RMU**

A 33kV (includes 22kV and 25kV) Ring Main Unit is a non-extensible item of switchgear generally comprising two switches and a switchfuse or circuit breaker, supplied as a single item of switchgear.

### **33kV Switch (GM)**

33kV (includes 22 & 25kV) Switch (Ground Mounted)

Includes - all indoor and outdoor Ground Mounted Switches & Fuse Switches.

Excludes - Circuit breakers and RMUs.

Any isolators and earth switches that are integral to a circuit breaker, switch, RMU should not be counted as separate items of switchgear.

### **33kV Switch (PM)**

33kV (includes 22 & 25kV) Switch (Pole Mounted)

Includes - All Pole mounted Circuit Breakers, Switches and auto sectionalisers.

### **33kV Switchgear - Other**

Includes - All other switchgear, eg Disconnectors, Fault throwers, Earthing switches, Fuses.

Excludes - Circuit breakers.

Any isolators and earth switches that are integral to a circuit breaker should not be counted as separate items of switchgear.

### **33kV Tower**

33kV (includes 22 & 25kV) Overhead line tower

Includes - Steel lattice towers.

Excludes - Small footprint steel masts.

### **33kV Transformer (GM)**

33kV (includes 22 & 25kV) Ground Mounted Power Transformer with a primary winding voltage of voltage of 33kV (includes 22 and 25kV)

Includes - 33kV reactors & regulators.

Excludes - All Auxiliary Transformers.

### **33kV Transformer (PM)**

33kV (includes 22 & 25kV) Pole Mounted Power Transformer with a primary winding voltage of 33kV (includes 22 and 25kV)

Includes - 33kV reactors & regulators.

Excludes - all Auxiliary Transformers.

### **33kV UG Cable (Gas)**

33kV (includes 22 & 25kV) Underground pressured assisted gas filled cable

Excludes - non pressured assisted designs and oil filled cables.

### **33kV UG Cable (Non Pressurised)**

33kV (includes 22 & 25kV) Underground non pressured assisted cables

Includes - XLPE, EPR and paper insulated cables. Excludes pressured assisted designs.

### **33kV UG Cable (Oil)**

33kV (includes 22 & 25kV) Underground pressured assisted oil filled cable

Excludes - non pressured assisted designs and gas filled cables.

### **66kV CB (Air Insulated Busbars) (ID) (GM)**

66kV Ground Mounted Circuit Breaker situated indoors

Includes - All CB designs with any arc extinction media having air (or equivalent) busbar insulation situated indoor.

### **66kV CB (Air Insulated Busbars) (OD) (GM)**

66kV Ground Mounted Circuit Breaker situated outdoors

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation situated outdoor.

### **66kV CB (Gas Insulated Busbars) (ID) (GM)**

66kV Ground Mounted Circuit Breaker situated indoors

Includes - All CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated indoor.

### **66kV CB (Gas Insulated Busbars) (OD) (GM)**

66kV Ground Mounted Circuit Breaker situated outdoors

Includes - All CB designs with any arc extinction media having SF6 gas (or equivalent) busbar insulation situated outdoor.

### **66kV Fittings**

Includes insulators and fittings on OH tower lines, but excludes insulators and fittings associated with OH pole lines. Measured per set (ie one per circuit per tower).

## **66kV OHL (Tower Line) Conductor**

66kV Overhead Line Conductor – Tower Line

Includes - all conductor strung on towers, single and double circuits.

Excludes - Conductor strung on a Pole Line and any associated fittings and towers.

## **66kV Pole**

66kV Overhead Line Pole

Includes - poles constructed of wood or concrete and small footprint steel masts (both single and double circuits).

Excludes - Steel lattice towers.

## **66kV Switchgear - Other**

Includes - All other switchgear, eg Disconnectors, Fault throwers, Earthing switches, Fuses.

Excludes - Circuit breakers.

Any isolators and earth switches that are integral to a circuit breaker should not be counted as separate items of switchgear.

## **66kV Tower**

66kV Overhead line tower

Includes - Steel lattice towers.

Excludes - Small footprint steel masts.

## **66kV Transformer**

Power Transformer (PM or GM) with a primary winding voltage of 66kV

Includes - 66kV reactors & regulators.

Excludes - All Auxiliary Transformers.

## **66kV UG Cable (Gas)**

66kV Underground pressured assisted gas filled cable

Excludes - non pressured assisted designs and oil filled cables.

## **66kV UG Cable (Non Pressurised)**

66kV Underground non pressured assisted cables

Includes - XLPE, EPR and paper insulated cables. Excludes pressured assisted designs.

## **66kV UG Cable (Oil)**

66kV Underground pressured assisted oil filled cable

Excludes - non pressured assisted designs and gas filled cables.

## **132kV Systems**

The lower boundary of the 132kV system should be taken as the supply terminals of the DNO's customers supplied at 132kV or the load-side terminals of switchgear controlling the secondary (lower voltage) side of 132kV transformers. If no switchgear exists between the secondary side of the 132kV transformer and the primary side of an EHV or HV system transformer, the lower boundary should be taken as the secondary-side terminals of the 132kV transformer. The lower voltage busbars and their protection equipment at 132kV/lower voltage substations are not included.

The upper boundary of the 132kV system should be taken as the point at which ownership of the 132kV circuit or plant becomes the responsibility of the DNO.

## **132kV as Highest Voltage Worked On**

All DPCR4 connection jobs where 132kV is the highest voltage of the assets being worked on.

## **132kV CB (Air Insulated Busbars) (ID)**

132kV Ground Mounted Circuit Breaker

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation situated indoor.

## **132kV CB (Air Insulated Busbars) (OD)**

132kV Ground Mounted Circuit Breaker

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation situated outdoor.

## **132kV CB (Gas Insulated Busbars) (ID)**

132kV Ground Mounted Circuit Breaker

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation situated indoor.

## **132kV CB (Gas Insulated Busbars) (OD)**

132kV Ground Mounted Circuit Breaker

Includes - all CB designs with any arc extinction media having air (or equivalent) busbar insulation situated outdoor.

## **132kV Fittings**

Includes insulators and fittings on OH tower lines, but excludes insulators and fittings associated with OH pole lines. Measured per set (ie one per circuit per tower).

## **132kV OHL (Pole Line) Conductor**

132kV Overhead Line Conductor – Pole Line

Includes - all conductor strung on poles, single and double circuits, open wire and covered conductor.

Excludes - Conductor strung on a Tower Line and any associated poles.

For reporting of Asset Replacement, this activity includes the installation of conductor only and excludes the installation of poles and pole fittings (including stay wire).

## **132kV OHL (Tower Line) Conductor**

132kV Overhead Line Conductor – Tower Line

Includes - all conductor strung on towers, single and double circuits.

Excludes - Conductor strung on a Pole Line and any associated fittings and towers.

## **132kV Pole**

132kV Overhead Line Pole

Includes - poles constructed of Wood or concrete and small footprint steel masts (both single and double circuits).

Excludes – towers.

## **132kV Sub Cable**

132kV cable which is placed below the surface of the water and laid on or under the sea bed or the bed of a river or estuary whether or not designed for this purpose.

## **132kV Switchgear - Other**

Includes - Disconnectors, Earthing Switches and Fault throwers.

Excludes - Circuit Breakers.

Any isolators and earth switches that are integral to a circuit breaker should not be counted as separate items of switchgear.

## **132kV Tower**

132kV Overhead Line Tower

Includes - Steel lattice towers.

Excludes - Small footprint steel masts.

## **132kV Transformer**

Power Transformer with a primary winding voltage of 132kV

Includes - 132kV reactors & regulators.

Excludes - All Auxiliary Transformers earthing transformers and arc suppression coils.

## **132kV UG Cable (Gas)**

132kV Under Ground Cable (Gas Filled)

Includes - All pressure assisted Gas Filled Cables.

## **132kV UG Cable (Non Pressurised)**

132kV Underground Cable (Non Pressurised)

Includes - all non-pressure assisted cables (eg XLPE, EPR or paper insulated cables).

## **132kV UG Cable (Oil)**

132kV Underground Cable (Oil Filled)

Includes - all pressure assisted Oil Filled Cables.

## 4. Refurbishment and Repairs & Maintenance Task Allocation Tables

<b>LV Main (OHL) Conductor</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of interphase spacers	✓		
Replacement of bird flight deterrents	✓		
Shrouding (Temporary) to prevent contact with conductors in order to achieve safe working clearances when third parties are working near LV overhead lines.	✓		
<b>LV Service (OHL)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Repairs to overhead service conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of individual insulators	✓		
Repairs to / replacement of brackets	✓		
Recleating of service lead-in cable	✓		
Remaking cut out termination	✓		
Replacement of a section of aerial service conductor/ service lead-in cable within an existing LV overhead service (but not complete replacement of the service) <i>{note: complete replacement of a service is reported as Asset Replacement}</i>		✓	
Replacement of multi service box	✓		
Shrouding (Temporary) to prevent contact with conductors in order to achieve safe working clearances when third parties are working near LV overhead lines.	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>LV Poles</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Patch welding repairs to steel poles	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Replacement of steelwork associated with pole mounted switchgear and equipment		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		

<b>LV Main (UG Consac)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		

<b>LV Main (UG Plastic)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		



RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>LV Main (UG Paper)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		

<b>Rising &amp; Lateral Mains</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		

<b>LV Service (UG)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Sheath repairs	✓		
Replacement of joints or remaking cut out termination	✓		
Replacement of a section of service cable within an existing LV underground service (but not complete replacement of the service) <i>{note: complete replacement of a service is reported as Asset Replacement}</i>	✓		
LV Underground Service Transfers - associated with the installation of new LV UG Mains cable (i.e. the activity of connecting existing LV underground services to a new LV underground (mains) cable as required when the existing LV underground (mains) cable is the subject of asset replacement).		✓	

<b>LV Service associated with RLM</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Sheath repairs	✓		
Replacement of joints, remaking cut out termination or terminations at distribution boards	✓		

<b>LV Circuit Breaker</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Replacement of barriers	✓		
Replacement of doors or locks	✓		
Replacement of MCCB unit within existing cabinet	✓		
Replacement of protection module	✓		
Replacement of contacts (ACB)	✓		
Replacement of individual components of the operating mechanism (ACB)	✓		
Replacement of individual components of the drive rods and linkages (ACB)	✓		
Complete replacement of the operating mechanism (ACB)			✓
Complete replacement of drive rods and linkages (ACB)		✓	
Replacement of test sockets		✓	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>LV Pillar (ID)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Clean and grease spare fuse carriers/ links	✓		
Replacement of barriers	✓		
Replacement of doors or locks	✓		
Replacement of damaged fuse carriers/ links	✓		
Replacement of complete feederway			✓
Replacement of test sockets		✓	

<b>LV Pillar (OD at Substation)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Clean and grease spare fuse carriers/ links	✓		
Replacement of barriers	✓		
Replacement of doors or locks	✓		
Replacement of damaged fuse carriers/ links	✓		
Replacement of complete feederway			✓
Replacement of test sockets		✓	

<b>LV Board (WM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Replacement of barriers	✓		
Replacement of doors or locks	✓		
Replacement of test sockets		✓	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>LV UGB</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Clean and grease spare fuse carriers/ links	✓		
Replacement of barriers	✓		
Replacement of damaged fuse carriers/ links	✓		
Pumping water from link disconnecting box pit	✓		
Replacement of link disconnecting box lid/ bell cover	✓		
Repair of link disconnecting box frame	✓		

<b>LV Pillars (OD not at Substation)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Clean and grease spare fuse carriers/ links	✓		
Replacement of barriers	✓		
Replacement of doors or locks	✓		
Replacement of damaged fuse carriers/ links	✓		
Replacement of complete feederway			✓
Replacement of test sockets		✓	

<b>Cut Out (Metered)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
No specific Maintenance & Repair or Refurbishment activities identified			

<b>LV Board (X-type Network) (WM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing	✓		
Diagnostic testing (e.g. infrared temperature measurement etc.)	✓		
Painting of equipment	✓		
General cleaning of equipment (internal & external)	✓		
Vegetation management (e.g. weed clearance)	✓		
Clean and grease spare fuse carriers/ links	✓		
Replacement of barriers	✓		
Replacement of damaged fuse carriers/ links	✓		
Replacement of complete feederway		✓	
Replacement of test sockets		✓	

<b>LV Transformers/Regulators</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
No specific Maintenance & Repair or Refurbishment activities identified			

<b>6.6/11kV OHL (Conventional Conductor)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of bird flight deterrents	✓		
<b>6.6/11kV OHL (BLX or similar Conductor)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of spiral vibration dampers	✓		
Replacement of bird flight deterrents	✓		
<b>20kV OHL (Conventional Conductor)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of bird flight deterrents	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>6.6/11kV Poles</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Replacement of steelwork associated with pole mounted switchgear and equipment		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		
<b>20kV OHL (BLX or similar Conductor)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of spiral vibration dampers	✓		
Replacement of bird flight deterrents	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>20kV Poles</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Replacement of steelwork associated with pole mounted switchgear and equipment		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		

<b>6.6/11kV UG Cable</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		

<b>20kV UG Cable</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>HV Sub Cable</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)	✓		
Replacement of physical protection of submarine cable (e.g. split piping, backfill cover to exposed cables at shoreline etc.)	✓		

<b>6.6/11kV CB (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests etc.)	✓		
Diagnostic testing (oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of external bushings	✓		
Replacement of arcing horns	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Painting of plant	✓		
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>6.6/11kV CB (GM) Primary</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		



RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>6.6/11kV CB (GM) Secondary</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

<b>6.6/11kV Switch (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests etc.)	✓		
Diagnostic testing (oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of external bushings	✓		
Replacement of arcing horns	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Painting of plant	✓		
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

<b>6.6/11kV Switchgear - Other (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (operating tests etc.)	✓		
Lubrication of moving parts	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of braids	✓		
Replacement of interruptor heads	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of bushings	✓		
Repair/ replacement of earth bonding and earth mats	✓		
Repair/ replacement of interlocks	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		
Replacement of removable element only of fuseable links/ ASLs (i.e. not complete replacement of asset)	✓		

<b>6.6/11kV Switch (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Painting of plant	✓		
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>6.6/11kV RMU</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Painting of plant	✓		
Repairs to interlocks	✓		

<b>6.6/11kV X-type RMU</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes		✓	
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Painting of plant	✓		
Repairs to interlocks	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>20kV CB (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests etc.)	✓		
Diagnostic testing (oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of external bushings	✓		
Replacement of arcing horns	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Painting of plant	✓		
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

<b>20kV CB (GM) Primary</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>20kV CB (GM) Secondary</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

<b>20kV Switch (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests etc.)	✓		
Diagnostic testing (oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of external bushings	✓		
Replacement of arcing horns	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Painting of plant	✓		
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>20kV Switchgear - Other (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (operating tests etc.)	✓		
Lubrication of moving parts	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of braids	✓		
Replacement of interruptor heads	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of bushings	✓		
Repair/ replacement of earth bonding and earth mats	✓		
Repair/ replacement of interlocks	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		
Replacement of removable element only of fuseable links/ ASLs (i.e. not complete replacement of asset)	✓		

<b>20kV Switch (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Painting of plant	✓		
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>20kV RMU</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Complete factory refurbishment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Painting of plant	✓		
Repairs to interlocks	✓		

<b>6.6/11kV Transformer (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Bushing replacement	✓		
Replacement of gaskets and seals	✓		
Sight glass replacement	✓		
Align arcing horns	✓		
Complete workshop/factory refurbishment			✓

<b>6.6/11kV Transformer (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (oil testing, partial discharge testing etc.)	✓		
Oil filtration and replacement	✓		
Painting	✓		
Sight glass replacement	✓		
Bolt tightening	✓		
General housekeeping (remove debris from radiator etc.)	✓		
Repair/ replacement of connections to earthing system	✓		
Minor repair to existing cooling radiators ( rust/ leaks)	✓		
On site processing to recondition oil to remove moisture and acidity from windings			✓
Replacement of cooling radiators			✓
Replacement of conservator tanks		✓	
Replacement of bushings		✓	
Replacement of cable box		✓	
Installation of replacement windings			✓
Complete factory refurbishment			✓

<b>20kV Transformer (PM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Bushing replacement	✓		
Replacement of gaskets and seals	✓		
Sight glass replacement	✓		
Align arcing horns	✓		
Complete workshop/factory refurbishment			✓

<b>20kV Transformer (GM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (oil testing, partial discharge testing etc.)	✓		
Oil filtration and replacement	✓		
Painting	✓		
Sight glass replacement	✓		
Bolt tightening	✓		
General housekeeping (remove debris from radiator etc.)	✓		
Repair/ replacement of connections to earthing system	✓		
Minor repair to existing cooling radiators ( rust/ leaks)	✓		
On site processing to recondition oil to remove moisture and acidity from windings			✓
Replacement of cooling radiators			✓
Replacement of conservator tanks		✓	
Replacement of bushings		✓	
Replacement of cable box		✓	
Installation of replacement windings			✓
Complete factory refurbishment			✓

<b>Batteries at GM HV Substations</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Examination of electrolyte level, plates, connections etc.	✓		
Diagnostic testing (e.g. internal impedance measurements, discharge tests etc.)	✓		
Topping up individual cells	✓		
Cleaning/ re-tightening of inter-cell connections	✓		
Replacement of individual cells	✓		

<b>33kV OHL (Pole Line) Conductor</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of spiral vibration dampers	✓		
Replacement of bird flight deterrents	✓		



## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV Pole</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Replacement of steelwork associated with pole mounted switchgear and equipment		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		

<b>66kV OHL (Pole Line) Conductor</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of spiral vibration dampers	✓		
Replacement of bird flight deterrents	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>66kV Pole</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		

<b>33kV OHL (Tower line) Conductor</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of jumpers or repair of broken strands	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV Tower</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. line polarisation resistance tests or transient dynamic response tests on foundations)	✓		
Vegetation management around the tower base	✓		
Replacement of individual bolts	✓		
Replacement of signs and notices	✓		
Repairs to existing steelwork members (e.g. welding)	✓		
Patch painting following steelwork repair	✓		
Replacement of anti-climbing devices (e.g. complete outrigger or barbed wire only)	✓		
Replacement of step bolts		✓	
Replacement of individual steelwork members			✓
Painting of tower			✓
Repairs to tower foundations (e.g. remuffing)	✓		
Replacement of tower foundations			✓

<b>33kV Fittings</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Repairs to insulation and fitting sub components, including replacement of individual insulators, dishes, shackles, arcing horns etc.	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		
Replacement of individual insulator strings { <i>note: replacement of a complete set of insulators/ fittings is an 'Asset Replacement' activity</i> }		✓	

<b>66kV OHL (Tower line) Conductor</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of jumpers or repair of broken strands	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>66kV Tower</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. line polarisation resistance tests or transient dynamic response tests on foundations)	✓		
Vegetation management around the tower base	✓		
Replacement of individual bolts	✓		
Replacement of signs and notices	✓		
Repairs to existing steelwork members (e.g. welding)	✓		
Patch painting following steelwork repair	✓		
Replacement of anti-climbing devices (e.g. complete outrigger or barbed wire only)	✓		
Replacement of step bolts		✓	
Replacement of individual steelwork members			✓
Painting of tower			✓
Repairs to tower foundations (e.g. remuffing)	✓		
Replacement of tower foundations			✓

<b>66kV Fittings</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Repairs to insulation and fitting sub components, including replacement of individual insulators, dishes, shackles, arcing horns etc.	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		
Replacement of individual insulator strings { <i>note: replacement of a complete set of insulators/ fittings is an 'Asset Replacement' activity</i> }		✓	

<b>33kV UG Cable (Non Pressurised)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)		✓	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV UG Cable (Oil)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>33kV UG Cable (Gas)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>66kV UG Cable (Non Pressurised)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)		✓	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>66kV UG Cable (Oil)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>66kV UG Cable (Gas)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>EHV Sub Cable</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)		✓	
Replacement of physical protection of submarine cable (e.g. split piping, backfill cover to exposed cables at shoreline etc.)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

33kV CB (Air Insulated Busbars)(ID) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

33kV CB (Air Insulated Busbars)(OD) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		



RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

33kV CB (Gas Insulated Busbars)(ID) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to racking device	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV CB (Gas Insulated Busbars)(OD) (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		

<b>33kV Switch (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of the moving portion (truck) in withdrawable equipment			✓
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		
Repairs to busbar joints (extensible switchgear)	✓		

<b>33kV Switchgear - Other</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (operating tests etc.)	✓		
Lubrication of moving parts	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of braids	✓		
Replacement of interruptor heads	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of bushings	✓		
Repair/ replacement of earth bonding and earth mats	✓		
Repair/ replacement of interlocks	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		
<b>33kV Switch (PM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests etc.)	✓		
Diagnostic testing (oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of external bushings	✓		
Replacement of arcing horns	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Painting of plant	✓		
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV RMU</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		

<b>66kV CB (Air Insulated Busbars)(ID) (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>66kV CB (Air Insulated Busbars)(OD) (GM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		

<b>66kV CB (Gas Insulated Busbars)(ID) (GM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to busbar joints (extensible switchgear)	✓		

<b>66kV CB (Gas Insulated Busbars)(OD) (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		
<b>66kV Switchgear - Other</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (operating tests etc.)	✓		
Lubrication of moving parts	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of braids	✓		
Replacement of interruptor heads	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of bushings	✓		
Repair/ replacement of earth bonding and earth mats	✓		
Repair/ replacement of interlocks	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>33kV Transformer (PM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Bushing replacement	✓		
Replacement of gaskets and seals	✓		
Sight glass replacement	✓		
Align arcing horns	✓		
Complete workshop/factory refurbishment			✓

<b>33kV Transformer (GM)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Test operation of forced cooling (fans/ pumps)	✓		
Test Bucholz & winding temperature indicators/ relays	✓		
Diagnostic testing (oil testing, partial discharge testing etc.)	✓		
Change silica gel in breather	✓		
Oil filtration and replacement	✓		
Painting	✓		
Sight glass replacement	✓		
Bolt tightening	✓		
General housekeeping (remove debris from radiator etc.)	✓		
Repair/ replacement of connections to earthing system	✓		
Minor repair to existing cooling radiators ( rust/ leaks)	✓		
Replacement of breather unit	✓		
Tapchanger diverter contact replacement	✓		
Tapchanger selector contact replacement	✓		
Replacement of individual fan motors	✓		
Replacement of pumps	✓		
Replacement of gaskets & seals			✓
On site processing to recondition oil to remove moisture and acidity from windings			✓
Replacement of cooling radiators			✓
Replacement of conservator tanks		✓	
Replacement of tap changers or full replacement of tap changer mechanism			✓
Replacement of bushings			✓
Replacement of cable box		✓	
Installation of replacement windings			✓
Complete factory refurbishment			✓

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>66kV Transformer</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Test operation of forced cooling (fans/ pumps)	✓		
Test Bucholz & winding temperature indicators/ relays	✓		
Diagnostic testing (oil testing, partial discharge testing etc.)	✓		
Change silica gel in breather	✓		
Oil filtration and replacement	✓		
Painting	✓		
Sight glass replacement	✓		
Bolt tightening	✓		
General housekeeping (remove debris from radiator etc.)	✓		
Repair/ replacement of connections to earthing system	✓		
Minor repair to existing cooling radiators ( rust/ leaks)	✓		
Replacement of breather unit	✓		
Tapchanger diverter contact replacement	✓		
Tapchanger selector contact replacement	✓		
Replacement of individual fan motors	✓		
Replacement of pumps	✓		
Replacement of gaskets & seals			✓
On site processing to recondition oil to remove moisture and acidity from windings			✓
Replacement of cooling radiators			✓
Replacement of conservator tanks		✓	
Replacement of tap changers or full replacement of tap changer mechanism			✓
Replacement of bushings			✓
Replacement of cable box		✓	
Installation of replacement windings			✓
Complete factory refurbishment			✓

<b>Batteries at 33kV Substations</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Examination of electrolyte level, plates, connections etc.	✓		
Diagnostic testing (e.g. internal impedance measurements, discharge tests etc.)	✓		
Topping up individual cells	✓		
Cleaning/ re-tightening of inter-cell connections	✓		
Replacement of individual cells	✓		

<b>Batteries at 66kV Substations</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Examination of electrolyte level, plates, connections etc.	✓		
Diagnostic testing (e.g. internal impedance measurements, discharge tests etc.)	✓		
Topping up individual cells	✓		
Cleaning/ re-tightening of inter-cell connections	✓		
Replacement of individual cells	✓		



RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>132kV OHL (Pole Line) Conductor</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of clamps, replacement of jumpers, replacement of insulation piercing connectors, and repair of broken strands	✓		
Replacement of bird flight deterrents	✓		

<b>132kV Pole</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Pole testing using diagnostic equipment	✓		
Repairs to existing stay and stay insulators that do not constitute complete replacement of the stay wire and insulator.	✓		
Replacement of individual insulators or fittings	✓		
Repairs to pole top steelwork (such as crossarms, outrigger brackets, bracing) involving the replacement of individual steelwork components such as bolts or individual crossarm members	✓		
Replacement of signs and notices	✓		
Repair or replacement of pole earthing	✓		
Remedial application of wood pole preservative (e.g. insertion of boron rods)	✓		
Replacement of a complete set of insulators associated with an existing pole		✓	
Complete replacement of pole top steelwork (including associated insulators and fittings)		✓	
The complete replacement of stay wire and insulator (including stay block or anchor as necessary) at an existing pole		✓	
Replacement of steelwork associated with pole mounted switchgear and equipment		✓	
Pole Strengthening (e.g. clamping a steelwork supporting bracket to an existing pole)			✓
Small footprint steel masts: Replacement of individual bolts	✓		
Small footprint steel masts: Repairs to existing steelwork members (e.g. welding)	✓		
Small footprint steel masts: Patch painting following steelwork repair	✓		
Small footprint steel masts: Replacement of step bolts		✓	
Small footprint steel masts: Replacement of individual steelwork members			✓
Small footprint steel masts: Painting of mast		✓	
Small footprint steel masts: Repairs to foundations	✓		

<b>132kV OHL (Tower line) Conductor</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing of overhead conductor (e.g. corman testing)	✓		
Removal and testing of overhead conductor core samples from existing overhead line	✓		
Repairs to overhead conductor, such as remaking compression joints, replacement of jumpers or repair of broken strands	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		

<b>132kV Tower</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. line polarisation resistance tests or transient dynamic response tests on foundations)	✓		
Vegetation management around the tower base	✓		
Replacement of individual bolts	✓		
Replacement of signs and notices	✓		
Repairs to existing steelwork members (e.g. welding)	✓		
Patch painting following steelwork repair	✓		
Replacement of anti-climbing devices (e.g. complete outrigger or barbed wire only)	✓		
Replacement of step bolts		✓	
Replacement of individual steelwork members			✓
Painting of tower			✓
Repairs to tower foundations (e.g. remuffing)	✓		
Replacement of tower foundations			✓

<b>132kV Fittings</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Repairs to insulation and fitting sub components, including replacement of individual insulators, dishes, shackles, arcing horns etc.	✓		
Replacement of individual suspension clamps	✓		
Replacement of individual dampers and spacer dampers	✓		
Replacement of individual insulator strings { note: replacement of a complete set of insulators/ fittings is an 'Asset Replacement' activity }		✓	

<b>132kV UG Cable (Non Pressurised)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)		✓	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>132kV UG Cable (Oil)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>132kV UG Cable (Gas)</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)			✓
Remaking existing joints and terminations in situ			✓
Repressurising of cable fluid system (e.g. top up of oil or gas)	✓		
Resealing of pressurising equipment (e.g. resealing tanks)	✓		
Resoldering of pressurising equipment pipework	✓		
Replacement of pressurising equipment valves and/or gauges		✓	
Replacement of pressurising equipment pipework and/or tanks		✓	
Re-engineering (replacement/refurbishment/relocation) of pressurising system equipment with the objective of reducing the normal operating fluid pressure in the cable system			✓

<b>132kV Sub Cable</b>			
Activity	Cost And Volume Table For Reporting Of Activity		
	Repair & Maintenance	Refurbishment (No SDI)	Refurbishment (SDI)
Diagnostic testing (e.g. partial discharge testing, sheath testing etc.)	✓		
Sheath repairs	✓		
Replacement of cable joints and terminations (including sealing ends)		✓	
Replacement of physical protection of submarine cable (e.g. split piping, backfill cover to exposed cables at shoreline etc.)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

132kV CB (Air Insulated Busbars)(ID) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to busbar joints (extensible switchgear)	✓		

132kV CB (Air Insulated Busbars)(OD) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		

132kV CB (Gas Insulated Busbars)(ID) (GM)	Cost And Volume Table For Reporting Of Activity		
	Activity	Repair & Maintenance	Refurbishment (No SDI)
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Repairs to interlocks	✓		
Repairs to busbar joints (extensible switchgear)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>132kV CB (Gas Insulated Busbars)(OD) (GM)</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (trip tests, operation of interlocks etc.)	✓		
Diagnostic testing (insulation resistance testing, continuity testing, partial discharge testing, trip timing tests, oil testing, SF6 leak detection etc.)	✓		
Lubrication of moving parts	✓		
Renewal and replacement of insulation medium (e.g. SF6 and oil), whether reprocessed or not	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of crossjet pots (turbulator)	✓		
Replacement of individual gaskets and seals	✓		
Replacement of barriers	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of cable boxes			✓
Replacement of bushings (e.g. external bushings, cable box bushings etc.)	✓		
Replacement of arcing horns	✓		
Replacement of outdoor bay components: busbar, connections, clamps or droppers	✓		
Repair/ replacement of earth bonding	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of vacuum bottles (including replacement of associated seals)		✓	
Complete Refurbishment (factory or onsite) e.g. strip down & rebuild, replacing all worn parts			✓
Painting of plant	✓		
Repairs to interlocks	✓		

<b>132kV Switchgear - Other</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing (operating tests etc.)	✓		
Lubrication of moving parts	✓		
Replacement of contacts (arcing contacts/ main contacts)	✓		
Replacement of braids	✓		
Replacement of interruptor heads	✓		
Replacement of individual components of the operating mechanism	✓		
Replacement of individual components of the drive rods and linkages	✓		
Replacement of bushings	✓		
Repair/ replacement of earth bonding and earth mats	✓		
Repair/ replacement of interlocks	✓		
Complete replacement of the operating mechanism			✓
Complete replacement of drive rods and linkages		✓	
Replacement of control/communications battery	✓		
Replacement or repair of control box (and/or communications devices)	✓		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

<b>132kV Transformer</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Test operation of forced cooling (fans/ pumps)	✓		
Test Bucholz & winding temperature indicators/ relays	✓		
Diagnostic testing (oil testing, partial discharge testing etc.)	✓		
Change silica gel in breather	✓		
Oil filtration and replacement	✓		
Painting	✓		
Sight glass replacement	✓		
Bolt tightening	✓		
General housekeeping (remove debris from radiator etc.)	✓		
Repair/ replacement of connections to earthing system	✓		
Minor repair to existing cooling radiators ( rust/ leaks)	✓		
Replacement of breather unit	✓		
Tapchanger diverter contact replacement	✓		
Tapchanger selector contact replacement	✓		
Replacement of individual fan motors	✓		
Replacement of pumps	✓		
Replacement of gaskets & seals			✓
On site processing to recondition oil to remove moisture and acidity from windings			✓
Replacement of cooling radiators			✓
Replacement of conservator tanks		✓	
Replacement of tap changers or full replacement of tap changer mechanism			✓
Replacement of bushings			✓
Replacement of cable box		✓	
Installation of replacement windings			✓
Complete factory refurbishment			✓

<b>Batteries at 132kV Substations</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Examination of electrolyte level, plates, connections etc.	✓		
Diagnostic testing (e.g. internal impedance measurements, discharge tests etc.)	✓		
Topping up individual cells	✓		
Cleaning/ re-tightening of inter-cell connections	✓		
Replacement of individual cells	✓		

<b>Pilot Wire Overhead</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing - where not undertaken as part of 'Repair & Maintenance - Protection schemes (all voltages)' activities	✓		
Diagnostic testing (e.g. insulation resistance tests) - where not undertaken as part of 'Repair & Maintenance - Protection schemes (all voltages)' activities	✓		
Sheath repairs	✓		
Replacement of joints or remaking of terminations	✓		
Repairs to catenary	✓		

<b>Pilot Wire Underground</b>			
<b>Activity</b>	<b>Cost And Volume Table For Reporting Of Activity</b>		
	<b>Repair &amp; Maintenance</b>	<b>Refurbishment (No SDI)</b>	<b>Refurbishment (SDI)</b>
Functional testing - where not undertaken as part of 'Repair & Maintenance - Protection schemes (all voltages)' activities	✓		
Diagnostic testing (e.g. insulation resistance tests) - where not undertaken as part of 'Repair & Maintenance - Protection schemes (all voltages)' activities	✓		
Sheath repairs	✓		
Replacement of joints or remaking of terminations	✓		



<b>Substation (Civils)</b>		
<b>Activity</b>	<b>Cost And Volume Table For</b>	
	<b>Repair &amp; Maintenance</b>	<b>Civil Works Driven By Condition Of Civil Items</b>
Painting/ Timber treatment of Substation Civil Items (e.g. doors, window frames, fencing etc.)	✓	
Weeding of substation grounds	✓	
Maintenance of security lighting	✓	
Maintenance of perimeter security system	✓	
Replacement of individual security lighting columns		✓
Replacement of security lighting system		✓
Replacement of perimeter security system		✓
Installation of a new plinth		✓
Significant modification to existing plinth		✓
Removal of graffiti/ vandalism	✓	
Full replacement of GRP or steel enclosures		✓
Renewal, or significant modification to enclosure foundation		✓
Building extension/ complete replacement of building		✓
Building foundation works		✓
Repair/ renewal affecting less than 20% of roof	✓	
Renewal of 20% or more of roof		✓
Full replacement of roof		✓
Pointing (including building and bound boundary walls)		✓
Replacement of individual glass panes	✓	
Replacement of sills	✓	
Full replacement of window (incl. frame)		✓
Full replacement of door (and door frame, if required)		✓
Repair, or replacement, of locks/ handles	✓	
Replacement of sections of guttering, downspouts etc.		✓
Repairs to heaters or dehumidifying equipment	✓	
Replacement of internal lighting systems		✓
Replacement of individual heater panels		✓
Replacement of internal heating systems		✓
Replacement of dehumidifying equipment		✓
Works on below ground drainage		✓
Repairs to boundary walls, fences and gates	✓	
Full, or partial replacement, of boundary walls and fences		✓
Full, or partial replacement, of security fences		✓
Replacement of gates		✓
Groundworks (i.e. works associated with the external surface area of a substation site, such as tarmacing, chippings within site curtilage, access roads, paths etc.)		✓

## 5. Asset Replacement Scope of Works

For reporting of Asset Replacement, the following unit cost scope, for each asset applies.

### LV main (OHL) conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV OH line conductor	Yes	
Supply and erect replacement LV OH line conductor	Yes	
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing LV insulators		LV Pole refurbishment
Supply and fit replacement LV insulators		LV Pole refurbishment
Replacement of poles	LV Pole	
Installation of additional poles	LV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		LV Pole refurbishment

### LV service (OHL)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV OH service flight	Yes	
Dismantle, remove and dispose of existing LV OH undereaves wiring	Yes	
Supply and install replacement LV OH service flight	Yes	
Supply and install replacement LV OH undereaves wiring	Yes	

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of existing LV cut out (including meter board where required)	Metered cut-out	
Supply & install replacement LV cut out (including meter board where required)	Metered cut-out	

## LV Poles

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where applicable)	Yes	
Excavate pole hole		
Dress and erect new pole (including insulators etc)	Yes	
Disconnect/reconnect/re-erect LV OH service flights		
Disconnect/reconnect/re-erect streetlight		
Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Disconnect, dismantle, remove and dispose of existing LV UG cable and associated pole termination (where appropriate)		LV Main (UG Plastic)
Excavate joint hole (where appropriate)		
Supply and make off replacement LV UG cable pole termination (where appropriate)		
Supply and make off LV UG cable joint at base of pole (where appropriate)		
Supply and erect LV UG cable and associated pole termination (where appropriate). Connect to overhead line		LV Main (UG Plastic)
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace undereaves service wiring	LV Service OHL	

## LV Main (UG Plastic)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install replacement LV UG Mains Cable		Yes
Disconnect and abandon existing LV cable (where applicable)		Yes
All trench excavation, backfilling & reinstatement (including joint holes for all mains joints, with the exception of joint holes for mains/ service joints where excavated separately to trenchwork for LV mains UG cable) associated with LV mains UG cable		
Supply & installation of cable ducting as required		
Supply & Make Off LV Mains/mains Joint(s)		
Dismantle existing LV overhead line (where applicable)		Yes
Disconnect, dismantle, remove and dispose of existing pole termination (where appropriate)		
Supply and erect pole termination (where appropriate). Connect to overhead line		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Purchase easement		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & Install replacement LV UG Service Cable, where complete service cable replaced	LV Service (UG)	
All trench excavation, backfilling & reinstatement (including joint holes) associated with LV UG service cable, where complete service cable replaced	LV Service (UG)	
Supply & Make Off LV Mains/service Joint(s), where complete service cable replaced	LV Service (UG)	
Supply & Install replacement LV UG Service Cable, to extend existing LV underground service cable		LV underground service transfers
All trench excavation, backfilling & reinstatement (including joint holes) associated with new LV UG service cable, required to extend existing LV underground service cable		LV underground service transfers
Supply & Make Off LV Mains/service Joint(s), to transfer existing LV underground service cable onto replacement LV main		LV underground service transfers
Supply & Make Off LV service/service Joint(s), to transfer existing LV underground service cable onto replacement LV main		LV underground service transfers
Associated replacement of LV UG link box	LV UGB & Pillars (OD not at Substation)	

## Rising and Lateral Mains

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Disconnect and remove existing rising & lateral mains cabling systems including busbars / cabling / containment systems and distribution boards	Yes	
Installation of new distribution board(s) and connecting cables to building supply intake point Installation of rising and lateral cabling systems from distribution board(s) to each individual premise , including making ways in building, installing cables, (& busbars (if required)) and installation of cable containment & support systems plus mechanical protection (incl making good any cable ways)	Yes	
Installation of cableheads / disconnection capabilities at each premise & all cable termination work		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replacement of incoming underground cable to multi-occupancy building	LV Service (UG)/ LV Main (UG) (as appropriate)	

## LV service (UG)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install LV service cable	Yes	
Disconnect and abandon existing LV UG service cable	Yes	
All trench excavation, backfilling & reinstatement (including joint holes) associated with LV UG service cable		
Supply & installation of cable ducting as required		
Supply and make off LV mains/LV UG service joint (where appropriate)		
Supply and make off LV UG service/LV UG service joint (where appropriate)		
Pot end existing LV UG service (where appropriate)		
Connect LV UG service to LV OH Main (where appropriate)		
Dismantle, remove and dispose of existing LV overhead service flight (where appropriate)		

Dismantle, remove and dispose of existing LV undereaves service (where appropriate)		
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<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of existing LV cut out (including meter board where required)	Cut Out (Metered)	
Supply & install replacement LV cut out (including meter board where required)	Cut Out (Metered)	

### LV service associated with RLM

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### LV circuit breaker

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV CB	Yes	
Supply & Install Replacement LV CB	Yes	
Supply and install LV cable		LV Main (UG Plastic)
Supply and make off LV connections		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of mechanical aids to facilitate installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### LV Pillar (ID)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV switchgear (eg LV pillar, LV Board (WM) including any integral LV circuit breaker)	Yes	
Supply & Install Replacement LV Pillar	Yes	
Supply & Install Replacement transformer-mounted fuse chamber	Yes	
Supply & Install LV UG Cable		LV Main (UG Plastic)
Disconnect and abandon existing LV UG cable		LV Main (UG Plastic)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off Permanent Joint		
Supply & Make Off Temporary Joints (if required)		
Terminate LV UG cables into replacement LV pillar		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle existing 6.6/11kV GM transformer	6.6/11kV Transformer (GM)	
Supply and install replacement 6.6/11kV GM transformer	6.6/11kV Transformer (GM)	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds

## LV Pillar (OD)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV switchgear (eg LV pillar, LV Board (WM) including any integral LV circuit breaker)	Yes	
Supply & Install Replacement LV Pillar	Yes	
Supply & Install Replacement transformer-mounted fuse chamber	Yes	
Supply & Install LV UG Cable		LV Main (UG Plastic)
Disconnect and abandon existing LV UG cable		LV Main (UG Plastic)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off Permanent Joint		
Supply & Make Off Temporary Joints (if required)		
Terminate LV UG cables into replacement LV pillar		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle existing 6.6/11kV GM transformer	6.6/11kV Transformer (GM)	
Supply and install replacement 6.6/11kV GM transformer	6.6/11kV Transformer (GM)	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds

## LV board (WM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV switchgear (eg LV pillar, LV Board (WM) including any integral LV	Yes	



circuit breaker)		
Supply & Install Replacement LV Board (WM)	Yes	
Supply & Install LV UG Cable		LV Main (UG Plastic)
Disconnect and abandon existing LV UG cable		LV Main (UG Plastic)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off Permanent Joint		
Supply & Make Off Temporary Joints (if required)		
Terminate LV UG cables into replacement LV board		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### Cut Out (Metered)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV cut out (including meter board where required)	Yes	
Supply & install replacement LV cut out (including meter board where required)	Yes	

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### LV board (X-type network) (WM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing LV switchgear (eg LV pillar, LV Board (WM) including any integral LV circuit breaker)	Yes	

Supply & Install Replacement LV Board (WM)(X Type Network)	Yes	
Supply & Install LV UG Cable		LV Main (UG Plastic)
Disconnect and abandon existing LV UG cable		LV Main (UG Plastic)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off Permanent Joint		
Supply & Make Off Temporary Joints (if required)		
Terminate LV UG cables into replacement LV board		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 6.6/11kV OHL (Conventional Conductor)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing HV OH line conductor	Yes	
Supply and erect replacement HV OH line conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing HV insulators/ crossarms		6.6/11kV Pole refurbishment
Supply and fit replacement HV insulators/ crossarms		6.6/11kV Pole refurbishment
Replacement of poles	6.6/11kV Pole	
Installation of additional poles	6.6/11kV Pole	
Renew stays on an existing pole (where required),		6.6/11kV Pole

including excavate stay holes		refurbishment
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## 6.6/11kV OHL (BLX or similar Conductor)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing HV OH line conductor	Yes	
Supply and erect replacement HV OH line BLX or similar conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing HV insulators/ crossarms		6.6/11kV Pole refurbishment
Supply and fit replacement HV insulators/ crossarms		6.6/11kV Pole refurbishment
Replacement of poles	6.6/11kV Pole	
Installation of additional poles	6.6/11kV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		6.6/11kV Pole refurbishment

## 20kV OHL (Conventional Conductor)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing HV OH line conductor	Yes	
Supply and erect replacement HV OH line conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset	Report Costs And Activity As Separate Activity That Does Not Result In

	Replacement	Addition Or Disposal Of Asset
Remove and dispose of existing HV insulators/ crossarms		20kV Pole refurbishment
Supply and fit replacement HV insulators/ crossarms		20kV Pole refurbishment
Replacement of poles	20kV Pole	
Installation of additional poles	20kV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		20kV Pole refurbishment

## 20kV OHL (BLX or similar Conductor)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing HV OH line conductor	Yes	
Supply and erect replacement HV OH line BLX or similar conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing HV insulators/ crossarms		20kV Pole refurbishment
Supply and fit replacement HV insulators/ crossarms		20kV Pole refurbishment
Replacement of poles	20kV Pole	
Installation of additional poles	20kV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		20kV Pole refurbishment

## 6.6/11kV Poles

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where appropriate)	Yes	
Excavate pole hole		
Dress and erect new (additional or replacement) pole (including cross arm and insulators etc)	Yes	

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Dismantle, remove and dispose of existing HV UG cable and associated pole termination (where appropriate)		6.6/11kV UG cable
Excavate joint hole (where appropriate)		
Supply and make of replacement HV UG cable pole termination (where appropriate)		
Supply and make of HV UG cable joint at base of pole (where appropriate)		
Supply and erect HV UG cable and associated pole termination (where appropriate)		6.6/11kV UG cable
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	
Supply and erect Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	

### 20kV Poles

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where appropriate)	Yes	
Excavate pole hole		
Dress and erect new (additional or replacement) pole (including cross arm and insulators etc)	Yes	
Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Dismantle, remove and dispose of existing HV UG cable and associated pole termination (where appropriate)		6.6/11kV UG cable
Excavate joint hole (where appropriate)		
Supply and make of replacement HV UG cable pole termination (where appropriate)		
Supply and make of HV UG cable joint at base of pole (where appropriate)		
Supply and erect HV UG cable and associated pole termination (where appropriate)		6.6/11kV UG cable
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset	Report Costs And Activity As Separate Activity That Does Not Result In

	Replacement	Addition Or Disposal Of Asset
Remove Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	
Supply and erect Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	

## 6.6/11kV UG cable

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install 6.6/11kV UG Cable	Yes	
Disconnect and abandon 6.6/11kV UG Cable (where applicable)	Yes	
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Disconnect, dismantle, remove and dispose of existing pole termination (where appropriate)		
Supply and erect pole termination (where appropriate). Connect to overhead line		
Supply & Make Off 6.6/11kV Joint(s)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Purchase Easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and install UG pilot cable	Pilot Wire Underground	

## 20kV UG cable

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install 20kV UG Cable	Yes	
Disconnect and abandon 6.6/11kV UG Cable (where applicable)	Yes	
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Disconnect, dismantle, remove and dispose of existing pole termination (where appropriate)		
Supply and erect pole termination (where appropriate).		

Connect to overhead line		
Supply & Make Off 20kV Joint(s)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Purchase Easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and install UG pilot cable	Pilot Wire Underground	

## HV Sub cables

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install HV submarine cable	Yes	
Disconnect and abandon existing HV submarine cable	Yes	
Vessel mobilisation/demobilisation		
Dive team mobilisation/demobilisation		
Jointers mobilisation/demobilisation		
Ploughing or post lay burial jetting.		
Protection where burial not achieved.		
Transition Jointing on shore		
Shore end protection burial		
Tide and weather delays		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 6.6/11kV CB (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 6.6/11kV pole mounted circuit breaker	Yes	

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Dismantle, remove and dispose of 6.6/11kV pole mounted circuit breaker	Yes	
Supply and install HV earthwire (assuming original CB was unearthed)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Dismantle, remove and dispose of existing radio and RTU for remote control functionality (where radio and RTU existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	6.6/11kV Pole	
Supply and install radio and RTU for remote control functionality (where radio and RTU existed previously)		Operational IT & Telecoms
Supply and install radio and RTU for remote control functionality (where no radio or RTU existed previously)		QoS
Supply and install bypass isolator/ switch	as appropriate	

### 6.6/11kV CB (GM) Primary

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 6.6/11kV GM circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 6.6/11kV GM circuit breaker (including protection relays and transducers)	Yes	
Supply & Install 6.6/11kV UG Cable (including interplant cables to power transformers)		6.6/11kV UG cable
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Supply & Make Off 6.6/11kV Joint(s)		
Terminate 6.6/11kV UG cable into circuit breaker		
Replacement of associated protection, control or SCADA equipment located at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		



<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at HV GM substation	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at HV GM substation	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds

## 6.6/11kV CB (GM) Secondary

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 6.6/11kV GM circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 6.6/11kV GM circuit breaker (including protection relays)	Yes	
Supply & Install 6.6/11kV UG Cable (including interplant cables to power transformers)		6.6/11kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 6.6/11kV Joint(s)		
Terminate 6.6/11kV UG cable into circuit breaker		
Replacement of associated protection, control or SCADA equipment located at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger (where applicable)	Batteries at HV GM	

	substation	
Dismantle, remove and dispose of existing battery and associated charger (where applicable)	Batteries at HV GM substation	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Install RTU and associated telecommunications (where no SCADA functionality existed previously) (ie as an enhancement)		QoS
Renew RTU and/or associated telecommunications (where SCADA functionality existed previously)		Operational IT & Telecoms

### 6.6/11kV Switch (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing sectionaliser	Yes	
Supply and install new sectionaliser	Yes	
Supply and install HV earthwire (assuming original switch was unearthed)		
Dismantle, remove and dispose of existing radio and RTU for remote control functionality (where radio and RTU existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	6.6/11kV Pole	
Supply and install radio and RTU for remote control functionality (where radio and RTU existed previously)		Operational IT & Telecoms
Supply and install radio and RTU for remote control functionality (where no radio or RTU existed previously)		QoS

### 6.6/11kV Switchgear - Other (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing Other HV PM switchgear (eg ABI, ABSD, ASL & HV PM fuse)	Yes	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Supply and install new Other HV PM Switchgear (eg ABI, ABSD, ASL & HV PM fuse)	Yes	
Supply and install HV earthwire (assuming original switchgear was unearthed)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	6.6/11kV Pole	

## 6.6/11kV Switch (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 6.6/11kV GM switch	Yes	
Dismantle, remove and dispose of existing 6.6/11kV switchgear (eg GM switch, RMU & GM CB)	Yes	
Supply & Install 6.6/11kV UG Cable (including interplant cables to power transformers)		6.6/11kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 6.6/11kV Joint(s)		
Terminate 6.6/11kV UG cable into GM switch		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Fit actuators etc, for remote operation (where functionality existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Fit actuators etc, for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where functionality existed previously)		Operational IT & Telecoms

## 6.6/11kV RMU

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and Install Replacement 6.6/11kV RMU	Yes	
Dismantle, remove and dispose of existing 6.6/11kV switchgear (eg GM switch, RMU & GM CB)	Yes	
Supply & Install 6.6/11kV UG Cable (including interplant cables to power transformers)		6.6/11kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 6.6/11kV Joint(s)		
Terminate 6.6/11kV UG cable into RMU		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Fit actuators etc, for remote operation (where functionality existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Fit actuators etc, for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where functionality existed previously)		Operational IT & Telecoms

## 6.6/11kV X-type RMU

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and Install Replacement 6.6/11kV X-type RMU including 2 sets of unit protection CTs	Yes	
Dismantle, remove and dispose of existing 6.6/11kV switchgear (eg GM switch, RMU & GM CB)	Yes	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Supply & Install 6.6/11kV UG Cable		6.6/11kV UG Cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 6.6/11kV Joint(s)		
Terminate 6.6/11kV UG cable into RMU		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Replace unit protection equipment at the same site as the prime asset being replaced		
Multicore cabling - remove & replace existing cabling (including all retermination)		
Breakdown transformer end box and replace CTs. Install CTs in Transformer endbox, remake and recommission		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace associated unit protection equipment at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds

**20kV CB (PM)**

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 20kV pole mounted circuit breaker	Yes	
Dismantle, remove and dispose of 20kV pole mounted circuit breaker	Yes	
Supply and install HV earthwire (assuming original CB was unearthed)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Dismantle, remove and dispose of existing radio and RTU for remote control functionality		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	20kV Pole	
Supply and install radio and RTU for remote control functionality (where radio and RTU existed previously)		Operational IT & Telecoms
Supply and install radio and RTU for remote control functionality (where no radio or RTU existed previously)		QoS
Supply and install bypass isolator/ switch	as appropriate	

## 20kV CB (GM) Primary

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 20kV GM circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 20kV GM circuit breaker (including protection relays and transducers)	Yes	
Supply & Install 20kV UG Cable (including interplant cables to power transformers)		20kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 20kV Joint(s)		
Terminate 6.6/11kV UG cable into circuit breaker		
Replacement of associated protection, control or SCADA equipment located at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at HV GM substation	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at HV GM substation	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds

### 20kV CB (GM) Secondary

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 20kV GM circuit breaker (including protection relays)	Yes	
Dismantle, remove and dispose of existing 20kV GM circuit breaker (including protection relays)	Yes	
Supply & Install 20kV UG Cable (including interplant cables to power transformers)		20kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 20kV Joint(s)		
Terminate 20kV UG cable into circuit breaker		
Replacement of associated protection, control or SCADA equipment located at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger (where applicable)	Batteries at HV GM substation	
Dismantle, remove and dispose of existing battery and associated charger (where applicable)	Batteries at HV GM substation	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Install RTU and associated telecommunications (where		QoS

no SCADA functionality existed previously) (ie as an enhancement)		
Renew RTU and/or associated telecommunications (where SCADA functionality existed previously)		Operational IT & Telecoms

## 20kV Switch (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing sectionaliser	Yes	
Supply and install new sectionaliser	Yes	
Supply and install HV earthwire (assuming original switch was unearthed)		
Dismantle, remove and dispose of existing radio and RTU for remote control functionality (where radio and RTU existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	20kV Pole	
Supply and install radio and RTU for remote control functionality (where radio and RTU existed previously)		Operational IT & Telecoms
Supply and install radio and RTU for remote control functionality (where no radio or RTU existed previously)		QoS

## 20kV Switchgear - Other (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing Other HV PM switchgear (eg ABI, ABSD, ASL & HV PM fuse)	Yes	
Supply and install new Other HV PM Switchgear (eg ABI, ABSD, ASL & HV PM fuse)	Yes	
Supply and install HV earthwire (assuming original switchgear was unearthed)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	20kV Pole	



## 20kV Switch (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 20kV GM switch	Yes	
Dismantle, remove and dispose of existing 20kV switchgear (eg GM switch, RMU & GM CB)	Yes	
Supply & Install 20kV UG Cable (including interplant cables to power transformers)		20kV UG cable
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 20kV Joint(s)		
Terminate 20kV UG cable into GM switch		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Fit actuators etc, for remote operation (where functionality existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Fit actuators etc, for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where functionality existed previously)		Operational IT & Telecoms

## 20kV RMU

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and Install Replacement 20kV RMU	Yes	
Dismantle, remove and dispose of existing 20kV switchgear (eg GM switch, RMU & GM CB)	Yes	
Supply & Install 20kV UG Cable (including interplant cables to power transformers)		20kV UG cable

Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 20kV Joint(s)		
Terminate 20kV UG cable into RMU		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Fit actuators etc, for remote operation (where functionality existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Fit actuators etc, for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where no functionality existed previously)		QoS
Fit RTU and telecommunications equipment for remote operation (where functionality existed previously)		Operational IT & Telecoms

## 6.6/11kV Transformer (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle existing 6.6/11kV transformer (either pole mounted or ground mounted)	Yes	
Supply and install replacement pole mounted 6.6/11kV transformer	Yes	
Renew LV fusegear and associated wiring		
Make off HV & LV connections		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	6.6/11kV Pole	

## 6.6/11kV Transformer (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle existing 6.6/11kV transformer (either pole mounted or ground mounted)	Yes	
Supply and install replacement 6.6/11kV GM transformer	Yes	
Direct connection of LV switchgear/equipment to transformer, where applicable (eg transformer mounted pillar)		
Direct connection of HV switchgear/equipment to transformer, where applicable (eg transformer mounted RMU)		
Supply & Install interplant cables to HV switchgear, where applicable		6.6/11kV UG cable
All trenching for interplant cables to HV switchgear, where applicable		
Supply & Install interplant cables to LV switchgear, where applicable		LV UG cable
All trenching for interplant cables to LV switchgear, where applicable		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Dismantle, remove, dispose of existing LV Pillar	LV Pillar	
Supply and install replacement LV Pillar	LV Pillar	
Dismantle, remove, dispose of existing 6.6/11kV GM switchgear	6.6/11kV GM switchgear (as appropriate)	
Supply and install 6.6/11kV GM switchgear	6.6/11kV GM switchgear (as appropriate)	

## 20kV Transformer (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle existing 20kV transformer (either pole mounted or ground mounted)	Yes	
Supply and install replacement pole mounted 20kV transformer	Yes	
Renew LV fusegear and associated wiring		
Make off HV & LV connections		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing HV pole (if required)	20kV Pole	

## 20kV Transformer (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle existing 20kV transformer (either pole mounted or ground mounted)	Yes	
Supply and install replacement 20kV GM transformer	Yes	
Connect LV switchgear/equipment to transformer (eg cable box or transformer mounted pillar)		
Connect HV switchgear/equipment to transformer (eg cable box or transformer mounted RMU)		
Direct connection of LV switchgear/equipment to transformer, where applicable (eg transformer mounted pillar)		
Direct connection of HV switchgear/equipment to transformer, where applicable (eg transformer mounted RMU)		
Supply & Install interplant cables to HV switchgear, where applicable		20kV UG cable
All trenching for interplant cables to HV switchgear, where applicable		
Supply & Install interplant cables to LV switchgear, where applicable		LV UG cable
All trenching for interplant cables to LV switchgear, where applicable		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Modify substation surround/Supply and install substation enclosure		Enclosures and Surrounds
Dismantle, remove, dispose of existing LV Pillar	LV Pillar	
Supply and install replacement LV Pillar	LV Pillar	
Dismantle, remove, dispose of existing 20kV GM switchgear	20kV GM switchgear (as appropriate)	
Supply and install 20kV GM switchgear	20kV GM switchgear (as appropriate)	

### Batteries at GM HV Substations

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & install replacement battery and associated charger	Yes	
Dismantle, remove and dispose of existing battery and associated charger	Yes	
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction/Modification to building, or enclosure to accommodate batteries	Appropriate civils works category	

### 33kV OHL (Pole Line) conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing EHV wood pole OH line conductor	Yes	
Supply and erect replacement EHV wood pole OH line conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing EHV insulators/ crossarms		33kV Pole refurbishment
Supply and fit replacement EHV insulators/ crossarms		33kV Pole refurbishment
Replacement of poles	33kV Pole	
Installation of additional poles	33kV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		33kV Pole refurbishment

### 33kV Pole

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where appropriate)	Yes	
Excavate pole hole		
Dress and erect new (additional or replacement) pole (including cross arm and insulators etc)	Yes	
Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Dismantle cross bracing (on H poles)		
Supply and fit replacement cross bracing (on H poles)		
Dismantle, remove and dispose of existing 33kV UG cable and associated pole termination (where appropriate)		33kV UG Cable
Excavate joint hole (where appropriate)		
Supply and make off replacement 33kV UG cable pole termination (where appropriate)		
Supply and make off 33kV UG cable joint at base of pole (where appropriate)		
Supply and erect 33kV UG cable and associated pole box (where appropriate)		33kV UG Cable
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove Pole Mounted equipment where appropriate (eg	As	

CB, switch, transformer)	appropriate	
Supply and erect Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	

## 66kV OHL (Pole Line) Conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing EHV wood pole OH line conductor	Yes	
Supply and erect replacement EHV wood pole OH line conductor	Yes	
Install, and remove, temporary back stays required to facilitate conductor replacement		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing EHV insulators		66kV Pole refurbishment
Supply and fit replacement EHV insulators		66kV Pole refurbishment
Replacement of poles	66kV Pole	
Installation of additional poles	66kV Pole	
Renew stays on an existing pole (where required), including excavate stay holes		66kV Pole refurbishment

## 66kV Pole

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where appropriate)	Yes	
Excavate pole hole		
Dress and erect new (additional or replacement) pole (including cross arm and insulators etc)	Yes	
Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Dismantle cross bracing (on H poles)		
Supply and fit replacement cross bracing (on H poles)		
Dismantle, remove and dispose of existing 66kV UG cable and associated pole termination (where appropriate)		66kV UG Cable

Excavate joint hole (where appropriate)		
Supply and make off replacement 66kV UG cable pole termination (where appropriate)		
Supply and make off 66kV UG cable joint at base of pole (where appropriate)		
Supply and erect 66kV UG cable and associated pole termination (where appropriate)		66kV UG Cable
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	
Supply and erect Pole Mounted equipment where appropriate (eg CB, switch, transformer)	As appropriate	

### 33kV OHL (Tower Line) conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing EHV tower line OH conductor	Yes	
Supply and erect replacement EHV tower line OH conductor	Yes	
Dismantle, remove and dispose of existing aerial earthwire		
Supply and erect replacement aerial earth wire		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and erect wrapped pilot cable	Pilot wire Overhead	
Remove and dispose of existing EHV insulator sets	33kV Fittings	
Supply and fit replacement EHV insulator sets	33kV Fittings	



## 33kV Tower

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing tower	Yes	
Supply erect new or replacement tower	Yes	
Undertake any necessary tree cutting		
Break up existing foundations and make good ground (where appropriate)		
Excavate and install new or replacement tower foundations (where appropriate)		
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		
Purchase easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of existing insulator sets	33kV Fittings	
Supply and erect new or replacement insulator sets	33kV Fittings	

## 33kV fittings

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing insulator sets, and fittings (as appropriate)	Yes	
Supply and erect new or replacement insulator sets, and fittings (as appropriate)	Yes	
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 66kV OHL (Tower Line) Conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing EHV tower line OH conductor	Yes	
Supply and erect replacement EHV tower line OH conductor	Yes	
Dismantle, remove and dispose of existing aerial earthwire		
Supply and erect replacement aerial earth wire		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and erect wrapped pilot cable	Pilot wire Overhead	
Remove and dispose of existing EHV insulator sets	66kV Fittings	
Supply and fit replacement EHV insulator sets	66kV Fittings	

## 66kV Tower

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing tower	Yes	
Supply erect new or replacement tower	Yes	
Undertake any necessary tree cutting		
Break up existing foundations and make good ground (where appropriate)		
Excavate and install new or replacement tower foundations (where appropriate)		
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		
Purchase easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of existing insulator sets	66kV Fittings	
Supply and erect new or replacement insulator sets	66kV Fittings	

### 66kV Fittings

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing insulator sets, and fittings (as appropriate)	Yes	
Supply and erect new or replacement insulator sets, and fittings (as appropriate)	Yes	
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### 33kV UG cable (Non Pressurised)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install 33kV non pressurised UG Cable	Yes	
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Supply & Make Off 33kV Joint(s) and terminations		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Disconnect, dismantle, remove and dispose of existing pole or tower termination (where appropriate)		
Supply and erect pole or tower termination (where appropriate). Connect to overhead line		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Fully decommission redundant 33kV cable (pressurised and non pressurised)	Yes	
Dismantle, remove and dispose of pressurised oil tanks etc (where appropriate)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and install pilot cable	Pilot Wire Underground	
Supply and make off pilot cable joints and terminations	Pilot Wire Underground	

### 66kV UG Cable (Non Pressurised)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install 66kV non pressurised UG Cable	Yes	
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Supply & Make Off 66kV Joint(s) and terminations		
Disconnect, dismantle, remove and dispose of existing pole or tower termination (where appropriate)		
Supply and erect pole or tower termination (where appropriate). Connect to overhead line		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Fully decommission redundant 66kV cable (pressurised and non pressurised)	Yes	
Dismantle, remove and dispose of pressurised oil tanks etc (where appropriate)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and install pilot cable	Pilot wire underground	
Supply and make off pilot cable joints and terminations	Pilot wire underground	

## EHV Sub Cable

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install EHV submarine cable	Yes	
Disconnect and abandon existing EHV submarine cable	Yes	
Vessel mobilisation/demobilisation		
Dive team mobilisation/demobilisation		
Jointers mobilisation/demobilisation		
Ploughing or post lay burial jetting.		
Protection where burial not achieved.		
Transition Jointing on shore		
Shore end protection burial		
Tide and weather delays		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 33kV CB (Air Insulated Busbars) (ID) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 33kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 33kV CB (either indoor or outdoor including protection relays and transducers)	Yes	
Supply & Install 33kV UG Cable (including interplant cables to power transformers)		33kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 33kV Joint(s)		
Terminate 33kV UG cable into circuit breaker		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Supply and install replacement multicore cable		
Make off multicore terminations		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Dismantle, remove and dispose of existing multicore cable		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenching within building)		Building

### 33kV CB (Air Insulated Busbars) (OD) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 33kV CB and associated structures	Yes	
Dismantle, remove and dispose of existing 33kV busbars and associated structures		
Supply and install replacement 33kV outdoor circuit breaker and associated structures	Yes	
Supply and install 33kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 33kV isolators and	33kV	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

associated structures	Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Supply and install 33kV isolators and associated structures	33kV Switchgear - Other	
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

**33kV CB (Gas Insulated Busbars) (ID) (GM)**

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 33kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 33kV CB (either indoor or outdoor including protection relays and transducers)	Yes	
Supply & Install 33kV UG Cable (including interplant cables to power transformers)		33kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 33kV Joint(s)		
Terminate 33kV UG cable into circuit breaker		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 33kV	

	Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenching within building)		Building

### 33kV CB (Gas Insulated Busbars) (OD) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 33kV CB and associated structures	Yes	
Dismantle, remove and dispose of existing 33kV busbars and associated structures		
Supply and install replacement 33kV outdoor circuit breaker and associated structures	Yes	
Supply and install 33kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 33kV isolators and associated structures	33kV Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Supply and install 33kV isolators and associated structures	33kV Switchgear - Other	
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	



## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

### 33kV Switch (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 33kV GM switch	Yes	
Dismantle, remove and dispose of existing 33kV switchgear	Yes	
Supply & Install 33kV UG Cable		33kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 33kV Joint(s)		
Terminate 33kV UG cable into switch		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom/Modification to plinth		Civil works category as appropriate

### 33kV Switchgear - Other

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 33kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Dismantle, remove and dispose of existing 33kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Supply & Install 33kV UG Cable / busbars and connectors		33kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 33kV Joint(s) if appropriate		
Terminate 33kV UG cable into switch (if appropriate)		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks

### 33kV Switch (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing switch	Yes	
Supply and install new switch	Yes	
Supply and install earthwire (assuming original switch was unearthed)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Dismantle, remove and dispose of existing radio and RTU for remote control functionality (where radio and RTU existed previously)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing 33kV pole (if required)	33kV Pole	
Supply and install radio and RTU for remote control		Operational IT &

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

functionality (where radio and RTU existed previously)		Telecoms
Supply and install radio and RTU for remote control functionality (where no radio or RTU existed previously)		QoS

### 33kV RMU

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 33kV RMU	Yes	
Dismantle, remove and dispose of existing 33kV switchgear	Yes	
Supply & Install 33kV UG Cable		33kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 33kV Joint(s)		
Terminate 33kV UG cable into RMU		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building

Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth), located externally to a building		Plinths & Groundworks
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## 66kV CB (Air Insulated Busbars) (ID) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 66kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 66kV CB (either indoor or outdoor including protection panels, relays and transducers)	Yes	
Supply & Install 66kV UG Cable (including interplant cables to power transformers)		66kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 66kV Joint(s)		
Terminate 66kV UG cable into circuit breaker		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building

## 66kV CB (Air Insulated Busbars) (OD) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 66kV CB and associated structures	Yes	
Dismantle, remove and dispose of existing 66kV busbars and associated structures		
Supply and install replacement 66kV outdoor circuit breaker and associated structures	Yes	
Supply and install 66kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 66kV isolators and associated structures	66kV Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths & Groundworks
Supply and install 66kV isolators and associated structures	66kV Switchgear - Other	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 66kV Substations	
Supply & install replacement battery and associated charger	Batteries at 66kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

## 66kV CB (Gas Insulated Busbars) (ID) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 66kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 66kV CB (either indoor or outdoor including protection panels, relays and transducers)	Yes	
Supply & Install 66kV UG Cable (including interplant cables to power transformers)		66kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 66kV Joint(s)		
Terminate 66kV UG cable into circuit breaker		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 33kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 33kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom (including plinth and trenchwork integral to the building)		Building

## 66kV CB (Gas Insulated Busbars) (OD) (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 66kV CB and associated structures	Yes	

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Dismantle, remove and dispose of existing 66kV busbars and associated structures		
Supply and install replacement 66kV outdoor circuit breaker and associated structures	Yes	
Supply and install 66kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 66kV isolators and associated structures	66kV Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths & Groundworks
Supply and install 66kV isolators and associated structures	66kV Switchgear - Other	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 66kV Substations	
Supply & install replacement battery and associated charger	Batteries at 66kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

## 66kV Switchgear - Other

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 66kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Dismantle, remove and dispose of existing 66kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Supply & Install 66kV UG Cable / busbars and connectors		66kV UG Cable (Non Pressurised)

Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 66kV Joint(s) if appropriate		
Terminate 66kV UG cable into switch (if appropriate)		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks

### 33kV Transformer (PM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle existing 33kV transformer (either pole mounted or ground mounted)	Yes	
Supply and install replacement pole mounted 33kV transformer	Yes	
Renew LV fusegear and associated wiring		
Make off EHV & LV connections		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replace existing 33kV pole (if required)	33kV Pole	



### 33kV Transformer (GM)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install 33kV GM power transformer	Yes	
Dismantle, remove and dispose of existing power transformer	Yes	
Supply and install secondary voltage earthing transformer/reactor/resistor		
Dismantle existing earthing transformer/reactor/resistor		
Supply and install replacement multicore cable		
Make off multicore terminations		
Remove existing multicore cable		
Supply and install replacement AVC/control & protection panel		
Remove existing AVC/control & protection panel		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab etc to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		
<b>For cable connected transformers:</b>		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Install 33kV Interplant cables		33kV UG Cable (Non Pressurised)
Supply & make off 33kV cable terminations		
Supply & make off 33kV cable joints		
Supply & install secondary interplant cables (6.6kV, 11kV & 20kV)		UG cable as appropriate
Supply & make off secondary cable terminations (6.6kV, 11kV & 20kV)		
Supply & make off secondary cable joints (6.6kV, 11kV & 20kV)		
<b>For overhead connected transformers:</b>		
Dismantle, remove and dispose of existing 33kV OH terminations (inc busbars and supports)		
Supply & Make Off 33kV OH terminations (inc busbars and supports)		
Dismantle, remove and dispose of existing secondary OH terminations (inc busbars and supports)		
Supply & Make Off secondary OH terminations (inc busbars and supports)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Modification to concrete plinths/bases (including where appropriate complete new plinths and break of existing plinths)		Plinths and groundworks
Construct/refurbish oil bund (where oil bund previously existed)		Plinths and groundworks
Construct oil bund (where no oil bund previously existed)		Oil Pollution Mitigation Schemes
Dismantlement/modification/reconstruction of noise enclosures		Enclosures and Surrounds
Modification of site walls		Enclosures and Surrounds
Construction/Modification to switchroom to accommodate control/protection panel		Buildings

## 66kV Transformer

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install 66kV GM power transformer	Yes	
Dismantle, remove and dispose of existing power transformer	Yes	
Supply and install secondary voltage earthing transformer/reactor/resistor		
Dismantle existing earthing transformer/reactor/resistor		
Supply and install replacement multicore cable		
Make off multicore terminations		
Remove existing multicore cable		
Supply and install replacement AVC/control & protection panel		
Remove existing AVC/control & protection panel		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab etc to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		
<b>For cable connected transformers:</b>		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Install 66kV Interplant cables		66kV UG Cable (Non pressurised)
Supply & make off 66kV cable terminations		
Supply & make off 66kV cable joints		
Supply & install secondary interplant cables (6.6kV, 11kV & 20kV)		UG cable as appropriate

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Supply & make off secondary cable terminations (6.6kV, 11kV & 20kV)		
Supply & make off secondary cable joints (6.6kV, 11kV & 20kV)		
<b>For overhead connected transformers:</b>		
Dismantle, remove and dispose of existing 66kV OH terminations (inc busbars and supports)		
Supply & Make Off 66 kV OH terminations (inc busbars and supports)		
Dismantle, remove and dispose of existing secondary OH terminations (inc busbars and supports)		
Supply & Make Off secondary OH terminations (inc busbars and supports)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Modification to concrete plinths/bases (including where appropriate complete new plinths and break of existing plinths)		Plinths and groundworks
Construct/refurbish oil bund (where oil bund previously existed)		Plinths and groundworks
Construct oil bund (where no oil bund previously existed)		Oil Pollution Mitigation Schemes
Dismantlement/modification/reconstruction of noise enclosures		Enclosures and Surrounds
Modification of site walls		Enclosures and Surrounds
Construction/Modification to switchroom to accommodate control/protection panel		Buildings

### Batteries at 33kV Substations

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & install replacement battery and associated charger	Yes	
Dismantle, remove and dispose of existing battery and associated charger	Yes	
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction/Modification to building, or enclosure to accommodate batteries	Appropriate civils works category	

## Batteries at 66kV Substations

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & install replacement battery and associated charger	Yes	
Dismantle, remove and dispose of existing battery and associated charger	Yes	
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction/Modification to building, or enclosure to accommodate batteries	Appropriate civils works category	

## 132kV OHL (Pole Line) Conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 132kV wood pole OH line conductor	Yes	
Supply and erect replacement 132kV wood pole OH line conductor	Yes	
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Undertake any necessary tree cutting		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Remove and dispose of existing 132kV insulators		132kV Pole Refurbishment
Supply and fit replacement 132kV insulators		132kV Pole Refurbishment
Replacement of poles	132kV Pole	
Installation of additional poles	132kV Pole	

## 132kV Pole

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing pole (where appropriate)	Yes	
Excavate pole hole		
Dress and erect new (additional or replacement) pole (including cross arm and insulators etc)	Yes	
Undertake any necessary tree cutting		
Excavate stay holes		
Renew stays (where required)		
Dismantle cross bracing (on H poles)		
Supply and fit replacement cross bracing (on H poles)		
Dismantle, remove and dispose of existing 132kV UG cable and associated cable termination (where appropriate)		132kV UG Cable (as appropriate)
Excavate joint hole (where appropriate)		
Supply and make off replacement 132kV pole top UG cable termination (where appropriate)		
Supply and make of 132kV UG cable joint at base of pole (where appropriate)		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Purchase easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 132kV OHL (Tower Line) Conductor

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 132kV tower line OH conductor	Yes	
Supply and erect replacement 132kV tower line OH conductor	Yes	
Dismantle, remove and dispose of existing aerial earthwire		
Supply and erect replacement aerial earth wire		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

Undertake any necessary tree cutting		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and erect wrapped pilot cable	Pilot Wire Overhead	
Remove and dispose of existing 132kV insulator sets	132kV Fittings	
Supply and fit replacement 132kV insulator sets	132kV Fittings	

## 132kV Tower

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing tower	Yes	
Supply erect new or replacement tower	Yes	
Undertake any necessary tree cutting		
Break up existing foundations and make good ground (where appropriate)		
Excavate and install new or replacement tower foundations (where appropriate)		
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		
Purchase easements		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of existing insulator sets	132kV Fittings	
Supply and erect new or replacement insulator sets	132kV Fittings	

## 132kV Fittings

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing insulator sets and fittings	Yes	
Supply and erect new or replacement insulator sets and fittings	Yes	
Lower and re-erect existing conductors (where appropriate)		
Temporarily divert existing conductors		
Undertake any necessary tree cutting		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Provision and use of mechanical aids, scaffolding etc		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## 132kV UG Cable (Non Pressurised)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install 132kV non pressurised UG Cable	Yes	
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & installation of cable ducting as required		
Supply & Make Off 132kV Joint(s) and terminations		
Disconnect, dismantle, remove and dispose of existing pole or tower termination (where appropriate)		
Supply and erect pole or tower termination (where appropriate). Connect to overhead line		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Fully decommission redundant pressurised 132kV cable	Yes	
Dismantle, remove and dispose of pressurised oil tanks etc (where appropriate)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply and install pilot cable	Pilot Wire Underground	
Supply and make off pilot cable joints and terminations	Pilot Wire Underground	

### 132kV Sub cable

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install 132kV submarine cable	Yes	
Disconnect and abandon existing 132kV submarine cable	Yes	
Vessel mobilisation/demobilisation		
Dive team mobilisation/demobilisation		
Jointers mobilisation/demobilisation		
Ploughing or post lay burial jetting.		
Protection where burial not achieved.		
Transition Jointing on shore		
Shore end protection burial		
Tide and weather delays		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

### 132kV CB (Air Insulated Busbars) (ID)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 132kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 132kV CB (either indoor or outdoor including protection panels, relays and transducers)	Yes	
Supply & Install 132kV UG Cable (including interplant cables to power transformers)		132kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		



## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 132kV Joint(s)		
Terminate 132kV UG cable into circuit breaker		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 132kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 132kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom		Building

### 132kV CB (Air Insulated Busbars) (OD)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 132kV CB and associated structures	Yes	
Dismantle, remove and dispose of existing 132kV busbars and associated structures		
Supply and install replacement 132kV outdoor circuit breaker and associated structures (including post mounted CTs and structures for use with live tank circuit breakers)	Yes	
Supply and install 132kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 132kV isolators and associated structures	132kV Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Supply and install 132kV isolators and associated structures	132kV Switchgear - Other	
Supply & install replacement battery and associated charger	Batteries at 132kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 132kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

### 132kV CB (Gas Insulated Busbars) (ID)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 132kV Indoor circuit breaker (including protection relays and transducers)	Yes	
Dismantle, remove and dispose of existing 132kV CB (either indoor or outdoor including protection panels, relays and transducers)	Yes	
Supply & Install 132kV UG Cable (including interplant cables to power transformers, except where associated power transformer replacement is undertaken coincident with the circuit breaker replacement)		132kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 132kV Joint(s)		
Terminate 132kV UG cable into circuit breaker		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Supply and install replacement multicore cable		
Make off multicore terminations		

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Dismantle, remove and dispose of existing multicore cable		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earth bar (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Supply & install replacement battery and associated charger	Batteries at 132kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 132kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction of new switchroom/demolition of existing switchroom/Modification to switchroom		Building

### 132kV CB (Gas Insulated Busbars) (OD)

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Dismantle, remove and dispose of existing 132kV CB and associated structures	Yes	
Dismantle, remove and dispose of existing 132kV busbars and associated structures		
Supply and install replacement 132kV outdoor circuit breaker and associated structures (including post mounted CTs and structures for use with live tank circuit breakers)	Yes	
Supply and install 132kV busbars and associated structures		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Remove existing control/protection panel at the same site as the prime asset being replaced		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Dismantle, remove and dispose of 132kV isolators and	132kV	

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

associated structures	Switchgear - Other	
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks
Supply and install 132kV isolators and associated structures	132kV Switchgear - Other	
Supply & install replacement battery and associated charger	Batteries at 132kV Substations	
Dismantle, remove and dispose of existing battery and associated charger	Batteries at 132kV Substations	
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Construction/Modification of building/ enclosure to accommodate control/protection panel		Civil works category as appropriate

### 132kV Switchgear - Other

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install replacement 132kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Dismantle, remove and dispose of existing 132kV disconnectors, fault throwers, earthing switches and associated structures	Yes	
Supply & Install 132kV UG Cable / busbars and connectors		132kV UG Cable (Non Pressurised)
Supply & installation of cable ducting as required		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Make Off 132kV Joint(s) if appropriate		
Terminate 132kV UG cable into switch (if appropriate)		
Make off multicore terminations		
Dismantle, remove and dispose of existing multicore cable		
Supply and install replacement control/protection panel at the same site as the prime asset being replaced		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Replacement of associated protection, control or SCADA equipment located at a remote site to the prime asset being replaced		Refurbishment - Protection
Modification to concrete plinth/base (including where appropriate complete new plinths and break of existing plinth)		Plinths and Groundworks

## 132kV Transformer

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply and install 132kV power transformer	Yes	
Dismantle, remove and dispose of existing power transformer (either 132kV, 66kV or 33kV)	Yes	
Supply and install secondary voltage earthing transformer/reactor/resistor		
Dismantle existing earthing transformer/reactor/resistor (either 33kV , 66kV, 20kV or 11kV)		
Supply and install replacement multicore cable		
Make off multicore terminations		
Dismantle remove dispose of existing multicore cable		
Supply and install replacement AVC/control & protection panel		
Remove existing AVC/control & protection panel		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
Delivery of plant to site and use of crane/hiab etc to aid plant installation		
Connection to substation earthing system (including extension of substation earth grid, where required)		
<b>For cable connected transformers:</b>		
All trench excavation, backfilling & reinstatement (including joint holes)		
Supply & Install 132kV Interplant cables		132kV UG Cable (non pressurised)
Supply & make off 132kV cable terminations		
Supply & make off 132kV cable joints		
Supply & install secondary interplant cables (66kV, 33kV & 11kV)		UG cable as appropriate
Supply & make off secondary cable terminations (66kV, 33kV & 11kV)		
Supply & make off secondary cable joints (66kV, 33kV & 11kV)		
<b>For overhead connected transformers:</b>		

## RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Dismantle, remove and dispose of existing 132kV OH terminations (inc busbars and supports)		
Supply & Make Off 132kV OH terminations (inc busbars and supports)		
Dismantle, remove and dispose of existing secondary OH terminations (inc busbars and supports)		
Supply & Make Off secondary OH terminations (inc busbars and supports)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Modification to concrete plinths/bases (including where appropriate complete new plinths and break of existing plinths)		Plinths and groundworks
Construct/refurbish oil bund (where oil bund previously existed)		Plinths and groundworks
Construct oil bund (where no oil bund previously existed)		Oil Pollution Mitigation Schemes
Dismantlement/modification/reconstruction of noise enclosures		Enclosures and Surrounds
Modification of site walls		Enclosures and Surrounds
Construction/ Modification to switchroom to accommodate control/ protection panel		Building

### Batteries at 132kV Substations

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & install replacement battery and associated charger	Yes	
Dismantle, remove and dispose of existing battery and associated charger	Yes	
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		

<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset
Construction/Modification to accommodate batteries		Building

## Pilot Wire Overhead

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install overhead pilot cable (OPGW or separate span)	Yes	
Disconnect and remove existing overhead pilot cable or abandon existing Cable (where applicable)	Yes	
Supply and make off pilot cable joints		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset

## Pilot Wire Underground

<b>COSTS WITHIN SCOPE OF REPLACING PRIME ASSET</b>	Report As Prime Asset	Report As Consequential Asset
Supply & Install underground pilot cable	Yes	
Disconnect and remove existing overhead pilot cable or abandon existing Cable (where applicable)	Yes	
Supply and make off pilot cable joints		
Associated network operations (Switching, linking, use of mobile generation, issuing safety documentation, pre-commissioning tests and energisation)		
<b>COSTS OUTSIDE SCOPE OF REPLACING PRIME ASSET</b>	Report Costs And Activity As Separate Prime Asset Replacement	Report Costs And Activity As Separate Activity That Does Not Result In Addition Or Disposal Of Asset