

<i>Programme ID</i>	<i>Programme Name</i>	<i>Sub-programme</i>	<i>Asset name / further information</i>	<i>Unit of Measure</i>	<i>Volume</i>	<i>Unit Cost (£)k</i>	<i>Direct Allowance (£k)</i>
D06	Distribution Tower Lines	D06a	Re-conductor	Spans	33	26.450	872.850
		D06b	Refurbish	Lump Sum			1,594.030
							2,466.880
D07	33kV Overhead Lines	D07a	Re-engineer	km	455	18.277	8,316.035
		D07b	Refurbish	km	910	1.505	1,369.550
		D07c	Remedial Works	Lump Sum			11.493
							9,697.078
D08	11kV Overhead Lines	D08a	Re-engineer	km	3,033	8.900	26,993.700
		D08b	Refurbish	km	6,067	1.711	10,380.637
		D08c	Remedial works	Lump Sum			2,663.120
		D08d	Undergrounding	Lump Sum			605.930
							40,643.387
D09	LV Overhead Lines	D09b	Line Undergrounding (Direct Access)	km	5	80.500	402.500
		D09c	Line Undergrounding (Land locked)	km	13	125.520	1,631.760
		D09d	Remedial Works	Lump Sum			790.610
							2,824.870
D10	Undereaves	D10a	Replace 0.4kV mains and services (PBJ Insulated)	Properties	10,000	0.408	4,078.000
		D10b	Replace 0.4kV mains and services (PVC Insulated) ¹	Properties	9,500	0.408	3,874.100
							7,952.100
D11	LV cut-outs	D11a	Replace house service cut-outs	Properties	10,400	0.208	2,163.200

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D13	Primary Plant	D13a	Replace indoor switchgear (33kV)	Each	36	113.835	4,098.060		
		D13b	Replace outdoor switchgear - circuit breaker (33Kv)	Each	46	50.133	2,306.110		
		D13c	Replace outdoor switchgear - complete mesh (with indoor switchboard)	Each	42	97.643	4,101.002		
		D13d	Replace outdoor switchgear - mesh equipment (33kV)	Site	6	128.000	768.000		
		D13e	Replace primary switchgear (33kV, 11kV & 6.6kV)	Each	200	44.104	8,820.767		
		D13f	Building refurbishment	Site	8	12.969	103.752		
		D13g	Civil works to primary substations	Site	40	40.000	1,600.000		
		D13h	Primary substation lease renewal	Lump Sum			900.000		
		D13i	Replace primary switchgear (11kV & 6.6kV) retro-fit	Each	57	23.894	1,361.958		
		D13j	Refurbish primary S/S DC system	Site	60	12.748	764.880		
		D13k	Rewire primary S/S (inc. AC services panel)	Site	30	18.730	561.900		
		D13l	Plant painting (primary)	Site	40	2.500	100.000		
		D13m	Replace earth fault indicator	Each	200	1.000	200.000		
		D13n	Install 33kV capacitor bank	Each	2	148.288	296.576		
		D13o	Install 11kV capacitor bank	Each	4	85.958	343.832		
									26,326.836
		D14	Primary Transformers	D14a	Replace 33/11kV Tranformer (upto 6.25MVA)	Each	14	185.613	2,598.582
D14b	Replace 33/11kV Transformer (upto 12.5MVA)			Each	2	228.700	457.400		
D14c	Replace 33/11kV or 33/6.6kV Transformer (upto 18.75MVA)			Each	14	273.543	3,829.602		
D14d	Transformer refurbishment			Each	6	80.000	480.000		
							7,365.584		

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D15	Secondary Substations	D15a	Replace RMU	Each	80	7.772	621.760	
		D15b	Replace complete S/S	Each	395	33.300	13,153.500	
				Replace complete S/S and temporary S/S works				
		D15c			Each	50	44.100	2,205.000
		D15d		Secondary Switchboard Replacement	Each	110	31.400	3,454.000
		D15e		Replace OH fed GMT	Site	66	25.125	1,658.250
		D15f		Replace H pole S/S	Site	72	13.410	965.520
		D15g		H pole: TX change only	Site	10	4.500	45.000
		D15h		H pole: replace LV cabinet	Each	40	3.700	148.000
		D15i		Replace 4 pole structure	Site	225	22.917	5,156.325
		D15j		Repair 4 pole structure defects	Site	20	2.350	47.000
		D15k		Replace sectionalisers	Each	55	9.400	517.000
		D15l		Replace mini pillars	Each	1,035	3.389	3,507.615
		D15m		Replace LV wall mounted fuse board	Each	50	13.509	675.450
		D15n		Secondary substation ancillary works	Lump Sum			2,000.000
		D15o		Replace LV cabinet - 4 pole structures	Each	20	5.015	100.300
		D15p		Refurbish LV plant	Site	20,914	0.156	3,262.584
		D15q		Refurbish substation LV cabinet	Site	30	4.050	121.500
		D15r		Repair ABB LV cabinet	Each	800	0.750	600.000
		D15s		RMU substation - mini kiosk	Each	50	47.577	2,378.850
D15t		Refurbish 11kV GVS sectionaliser	Each	80	3.000	240.000		
D15u		Secondary other	Lump Sum			435.000		
D15v		Voltage regulators	Each	3	44.914	134.742		
							41,427.396	
D16	Distribution Cables	D16a	Replace HV cable	Metre	18,000	0.097	1,746.000	
		D16b	Replace LV cable	Metre	24,227	0.128	3,101.056	
		D16c	Refurbish 33kV FFC	Site	11	31.453	345.983	
		D16d	Part replacement of 33kV PILC cable	Metre	5,340	0.159	849.060	
		D16e	Procure leak management technologies	Lump Sum			137.873	
		D16f	Procure distribution cable accessories and ancillaries	Lump Sum			541.132	
		D16g	Procure condition monitoring equipment	Lump Sum			210.000	
							6,931.104	
D39	SCADA	D39a	Replace RTU	Each	122	30.221	3,687.000	
		D39b	Control centre hardware & software	Lump Sum			1,500.000	
							5,187.000	

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D41	Operational Telecoms network	D41a	Operational telecoms network	Lump Sum			3,302.000
		D41b	BT21CN	Lump Sum			1,654.000
							4,956.000
D43	ESQCR - Distribution	D43a	Fit LV signs	Site	112,763	0.017	1,901.184
		D43b	Fit 11kV signs	Site	68,795	0.017	1,159.884
		D43c	Fit 33kV signs	Site	6,190	0.017	104.363
		D43d	LV stay compliance (Dedicated)	Site	1,716	0.433	743.663
		D43e	11kV stay compliance (Dedicated) ²	Site	16,026	0.351	6,581.993
		D43f	11kV stay compliance (Refurb)	Site	7,893	0.351	2,770.443
		D43g	33kV stay compliance (Dedicated) ³	Site	898	0.511	616.302
		D43h	33kV stay compliance (Refurb)	Site	443	0.511	226.373
		D43i	Address very high/high risk sites	Site	2,722		19,091.349
		D43j	Address LV clearances & OHL refurbishment ⁴	km	1,045	18.377	19,203.965
		D43k	Address 11kV clearances	km	9,100	0.352	3,203.200
		D43l	Address 33kV clearances	km	1,365	0.062	84.630
		D43m	Distribution transformers	Each	115	4.000	460.000
		D43n	Resolve looped services	Site	1,000	1.464	1,464.210
		D43o	11kV resilience cut	km	843	1.115	939.945
		D43p	33kV resilience cut	km	2,000	0.929	1,858.000
		D43q	S/S resilience cut	Site	300	0.667	200.000
							60,609.504
D50	Substation Flooding Enforcement (D)	D50a	Permanent protection of primary substations	Site	9	122.882	1,105.938
		D50b	RMU substations - provision of flood protection by raising kiosk	Site	84	13.000	1,092.000
							2,197.938
D57	Distribution Network Reinforcement	D57a	Primary network projects (33kV) ⁵	Lump Sum			13,530.000
		D57b	Secondary network (11,6.6kV & LV) load related	Lump Sum			8,300.000
		D57c	Secondary network (11,6.6kV & LV) LCT related	Lump Sum			2,600.000
		D57d	Fault level investment	Lump Sum			1,700.000
							26,130.000

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D101	Network Alterations	D101a	Non-recoverable costs	Lump Sum			13,534.876
		D101b	NIRAUC schemes	Lump Sum			135.662
							13,670.538
D601	33kV Congestion	D601a	33kV Congestion	Lump Sum			8,900.000
D602	Investing for the Future	D602a	Integration projects	Lump Sum			5,310.000
		D602b	Telecoms infrastructure	Lump Sum			1,950.000
							7,260.000
D603	Distribution Protection	D603a	33kV protection retrofit	Each	49	5.900	289.100
		D603b	11kV protection retrofit	Each	125	5.950	743.750
		D603c	Network disturbance recorders (substation monitors)	Each	51	24.045	1,226.295
		D603d	Reverse power flow recorder	Each	900	1.670	1,503.000
							3,762.145
D604	Connection Driven System Work	D604a	Connection driven system work	Lump Sum			2,988.404
D605	Network Access & Commissioning	D605a	Network access & commissioning	Lump Sum			5,165.000
						Lump Sums	80,459.130
						Unitised Amounts	208,165.834
						Distribution Direct Total	288,624.964

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T06	Transmission Plant Switch Houses	T06a	Refurbish Kilroot 275kV Switch House and associated works	Lump Sum			350.000
T10	110kV Switchgear Replacement	T10a	Replace 110kV switchgear	Each	11	313.839	3,452.229
T11	275kV Plant Ancillaries	T11a	Replace catenaries	Site	3	250.000	750.000
		T11b	Remove asbestos	Site	1	100.000	100.000
		T11c	Refurbish concrete structure	Site	3	133.333	399.999
		T11d	Repair/refurbish transformer bunding	Site	3	200.000	600.000
		T11e	Replace security system	Site	1	100.000	100.000
		T11f	Refurbish DC standby system	Site	1	268.790	268.790
		T11g	Refurbish/upgrade earthing system	Site	5	20.000	100.000
		T11h	Rewire AC system	Site	2	42.596	85.192
		T11i	Refurbish control room	Site	3	25.000	75.000
		T11j	Refurbish/upgrade drainage system	Site	1	100.000	100.000
		T11k	Replace CVT (inc line trap) at Ballylumford	Each	6	25.908	155.448
		T11l	Replace CTs at Kilroot	Each	33	26.498	874.434
		T11m	Replace 275kV disconnectors at Hannahstown	Each	12	75.000	900.000
		T11n	Replace 22kV Capacitor Bank	Each	1	25.000	25.000
							4,533.863
T12	110kV Plant Ancillaries	T12a	Repair/refurbish transformer bunding	Site	4	45.000	180.000
		T12b	Install/replace standby generator	Site	16	29.971	479.536
		T12c	Refurbish DC standby system	Site	1	410.665	410.665
		T12d	Rewire AC system	Site	3	40.215	120.645
		T12e	Replace 110kV CT	Each	3	15.521	46.563
		T12f	Civil refurbishment	Site	1	200.000	200.000
		T12g	Replace 110kV Disconnecter	Each	23	35.000	805.000
		T12h	Refurbish/upgrade drainage system	Site	1	25.000	25.000
							2,267.409
T13	275kV/110kV Transformer Replacement	T13a	Transformers (275/110 kV) Install only	Each	2	602.062	1,204.124
		T13b	Replace Auxiliary Transformer	Each	4	59.708	238.832
		T13c	Replace Transformer Cooler	Each	2	125.000	250.000
							1,692.956

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T14	110/33kV Transformers Replacement	T14a	Transformers (110/33 kV) Install only	Each	7	379.920	2,659.440
		T14b	Transformers (110/33 kV)Procure only	Each	5	681.000	3,405.000
		T14c	Replace associated cable	Lump Sum			1,670.000
		T14d	Replace Earthing Transformer	Each	2	72.708	145.416
		T14e	Replace Transformer Cooler	Each	7	125.000	875.000
						8,754.856	
T15	22kV Reactor Replacement	T15a	22kV Reactors Buy & Install	Each	2	681.961	1,363.922
		T15b	22kV Reactors Procure only	Each	1	550.000	550.000
		T15c	Replace Reactor Cooler	Each	1	47.000	47.000
						1,960.922	
T16	Transmission Transformer Refurbishment	T16a	Refurbish/Replace 275kV Bushing	Each	3	30.924	92.772
		T16b	275kV Plant Painting	Site	4	10.512	42.048
		T16c	Refurbish 275kV TX tap changer	Each	2	17.345	34.690
		T16d	Refurbish 110kV cooler	Each	4	56.351	225.404
		T16e	Replace 110kV Bushing	Each	18	15.446	278.028
		T16f	110kV Plant Painting	Site	9	7.880	70.920
		T16g	Refurbish 110kV Disconnecter	Lump Sum			50.000
		T16h	Refurbish 110kV TX tap changer	Each	4	13.780	55.120
		T16i	Repair PST Tapchanger defect	Each	1	40.000	40.000
						888.982	
T17	275kV Overhead Line Asset Replacement	T17a	Replace Colour and Number Plates	Tower	310	0.595	184.450
		T17b	Replace Spacers	Span	502	1.100	552.200
		T17c	Replace Suspension Insulator	Tower side	390	3.597	1,402.830
		T17d	Replace Tension Insulator	Tower side	112	11.240	1,258.880
		T17e	Tower Painting	Tower	536	5.045	2,704.120
		T17f	Foundation assessment	Tower	124	3.000	372.000
		T17g	Condition assessment	Lump Sum			195.012
		T17h	Trolley Inspections	Span	245	0.600	147.000
		T17i	Muff Repair	Tower	247	1.900	469.300
						7,285.792	

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T19	110kV Overhead Line Asset Replacement	T19a	Replace conductor	Span	30	27.556	826.680
		T19b	Replace colour and number plates	Tower	248	0.600	148.800
		T19c	Tower Painting	Tower	773	1.906	1,473.338
		T19d	Replace wood poles	Pole set	1170	3.135	3,667.950
		T19d	Foundation assessment	Tower	178	3.000	534.000
		T19e	Condition assessment	Lump Sum			154.518
		T19f	Earthwire Replacement	Span	70	14.805	1,036.350
		T19g	Muff repairs	Tower	263	1.900	499.700
						8,341.336	
T20	Transmission Cables	T20a	Replace Sheath Voltage Limiters	Each	9	5.357	48.213
		T20b	Refurbish 110kV cable	Lump Sum			273.471
		T20c	Cable Flushing	Metre	9800	0.013	127.400
		T20d	Procurement of Transmission Cables Accessories and Ancillaries	Lump Sum			407.870
						856.954	
T40	Transmission ESQCR	T40a	Transmission ESQCR Overhead Lines	Lump Sum			165.128
T602	Transmission Protection	T602a	275kV Protection replacement	Lump Sum			2,662.253
		T602b	110kV Protection Replacement	Lump Sum			1,373.077
		T602c	Substation Monitors	Lump Sum			776.283
						4,811.613	
T603	Network Access & Commissioning (T)	T603a	Network Access & Commissioning	Lump Sum			1,305.000
	Omagh - Tamnamore RP5 Carryover						1,000.000
						Lump sums	9,382.612
						Unitised Amounts	38,284.428
						Transmission Direct Total	47,667.040

1 Volume driven allowance up to a maximum of 9,500 properties

2 Includes £956.87k for consequential pole replacement

3 Includes £157.42k for consequential pole replacement

4 D09 allowance for refurbishment included in D43. Output for this allowance is to deliver 1045km of LV overhead line refurbished and ESQCR compliant

5 £4,350.00k in D5 mechanism for Armagh Main & Airport Rd projects