

APPENDIX B - KETRACO - MACHINERY BREAKDOWN POLICY

LIST OF INSURED EQUIPMENT IN 43 SUBSTATIONS AS AT 15TH FEB 2021

1) Malindi 220/33kV Substation:

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 220/33kV	pcs	1	1,527,383.00
2	15MVAR 33kV Reactor	pcs	1	147,210.36
3	Circuit Breakers 220kV	pcs	3	481,853.21
4	Circuit Breakers 33kV	pcs	7	182,049.00
5	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			2,348,995.57

2) Galu 132/33Kv Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	2	418,387.45	836,774.90
2	Circuit Breakers 132kV	pcs	3	34,496.00	103,488.00
3	Circuit Breakers 33kV	pcs	7	26,007.00	182,049.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				1,132,811.90

3) Kegati (Kisii) 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,387.45	418,387.45
2	Circuit Breakers 220kV	pcs	1	31,360.00	31,360.00
3	Circuit Breakers 33kV	pcs	5	26,007.00	130,035.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				590,282.45

4) Garsen 220/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value
1	Power Transformer 23MVA 220/33kV	pcs	1	1,527,383.00
2	15MVAR 33kV Reactor	pcs	1	147,210.36
3	Circuit Breakers 220kV	pcs	3	281,853.21
4	Circuit Breakers 33kV	pcs	7	182,049.00

5	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			2,148,995.57

5) Lamu 220/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 220/33kV	pcs	1	1,212,200.00
2	15MVAR 33kV Reactor	pcs	1	147,210.36
3	Circuit Breakers 220kV	pcs	2	160,617.00
4	Circuit Breakers 33kV	pcs	4	104,028.00
5	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			1,634,555.36

6) Isiolo 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,387.45	418,387.45
2	Circuit Breakers 132kV	pcs	3	34,496.00	103,488.00
3	Circuit Breakers 33kV	pcs	5	26,007.00	130,035.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				662,410.45

7) Meru 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,387.45	418,387.45
2	Circuit Breakers 132kV	pcs	3	34,496.00	103,488.00
3	Circuit Breakers 33kV	pcs	7	26,007.00	182,049.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				714,424.45

8) Githambo 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,337.00
2	Circuit Breakers 132kV	pcs	2	78,021.00
3	Circuit Breakers 33kV	pcs	4	104,028.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			610,886.00

9) Gatundu 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,337.00
2	Circuit Breakers 132kV	pcs	2	78,021.00
3	Circuit Breakers 33kV	pcs	4	104,028.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			610,886.00

10) Mangu 132/33kV Substation.

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	418,387.00
2	Circuit Breakers 132kV	pcs	4	181,984.00
3	Circuit Breakers 33kV	pcs	6	156,046.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			766,917.00

11) Rangala 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	2	836,674.00
2	Circuit Breakers 132kV	pcs	2	117,031.25
3	Circuit Breakers 33kV	pcs	4	104,028.00
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			1,068,233.25

12) Embakasi 220/66kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Shunt Reactors 220kV 100MVAR	pcs	1	2,002,508.00	2,002,508.00
2	Circuit Breakers 132kV	pcs	5	315,230.50	315,230.50
	TOTAL INSURABLE				2,317,738.15

13) Rabai 220/132kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Shunt Reactors 220kV 100MVAR	pcs	1	2,002,508.00	2,002,508.00
2	Circuit Breakers 132kV	pcs	5	315,230.50	315,230.50
	TOTAL INSURABLE				2,317,738.15

14) Kindaruma 132kV Substation:

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit Breakers 132kV	pcs	3	34,040.00	102,120.00
	TOTAL INSURABLE				102,120.00

15) Garissa 132/33/11kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 7.5MVA 132/33kV	pcs	1	590,660.00	590,660.00
2	Power Transformer 7.5MVA 132/33/11kV	pcs	1	493,640.00	493,640.00
3	Circuit Breakers 132kV	pcs	4	34,830.00	139,320.00
4	Circuit Breakers 33kV	pcs	4	16,910.00	67,640.00
5	Auxiliary Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				1,301,760.00

16) New Menengai 132kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Auxiliary transformer 33/0.415 kV, 100 kVA	pcs	1	10,010
2	Circuit breakers 132 kV, 1600 A, 31.5 kA	set	6	260,256.00
	TOTAL INSURABLE			270,266.00

17) Soilo 132kV Substation (Expansion of existing substation)

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	132kV HYPACT Switchgear (including 1 set of CB, 2 sets of DS/ES, 1 set of CT)	pcs	2	500,000.00
	TOTAL INSURABLE			500,000.00

18) Narok 132/33kv Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	523,907.00
2	Circuit Breakers 132kV	set	2	72,564.00
3	Circuit Breakers 33kV	pcs	5	66,705.00
4	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			673,676.00

19) Wote 132/33kV Substation

	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	523,907.00
2	Circuit Breakers 132kV	pcs	3	109,809.00
3	Circuit Breakers 33kV	pcs	7	93,387.00
4	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			737,603.00

20) Nyahururu 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1.	Power Transformer 132/33kV, 23MVA	pc	1	523,907.00	523,907.00
2.	Circuit breakers 132kV, 2000A, 31.5kA	set	1	40,749.00	40,749.00
3.	Circuit breakers 132 kV, 800 A, 31.5 kA	set	1	30,320.00	30,320.00
4.	Circuit breakers 33kV 800A, 25kA rms	set	5	13,341.00	66,705.00
5.	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				672,181.00

21) Kitui 132/33kV Substation

	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	523,907.00
3	Circuit Breakers 132kV	pcs	3	109,809.00
4	Circuit Breakers 33kV	pcs	7	93,387.00
5	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			737,603.00

22) Kabarnet 132/33KV SUBSTATION

S/No	Equipment To Insure	Unity	Qty	Cost per unit	Total Insurable Value (USD)
1.	Power transformer 132/33 kV, 23 MVA	pcs	1	523,907.00	523,907.00
2.	Circuit breakers 132 kV, 2000 A, 31.5 kA	set	1	40,749.00	40,749.00
3.	Circuit breakers 132 kV, 800 A, 31.5 kA	set	1	30,320.00	30,320.00
4.	Circuit breakers 33 kV, 800 A, 25 kA rms	set	5	13,341.00	66,705.00
5.	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00	10,500.00

	TOTAL INSURABLE				672,181.00
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23) Sultan Hamud 132/33kV Substation

	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	523,907.00
3	Circuit Breakers 132kV	pcs	6	213,207.00
4	Circuit Breakers 33kV	pcs	7	93,387.00
5	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			841,001.00

24) Olkaria 132/33Kv Substation – 132Kv Bay

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit Breakers 132kV	set	2	40,749.00	81,498.00
2	Circuit Breakers 132kV	set	1	30,320.00	30,320.00
3	Auxiliary Supply Transformer 33/.430kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				122,318.00

25) Lessos Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit Breakers 132kV	pcs	2	30,320.00	60,640.00
	TOTAL INSURABLE				60,640.00

26) Mwingi 132/33Kv Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit Breakers 132kV	set	1	40,749.00	40,749.00
2	23MVA 132/33kV Power Transformer	No.	1	523,907.00	523,907.00
3	Auxiliary Transformer	No.	1	10,500.00	10,500.00
	TOTAL INSURABLE				575,156.00

27) Ishiara 132kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
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1.	Circuit breakers 132kV, 2000A, 31.5kA	set	3	40,749.00	122,247.00
	TOTAL INSURABLE				122,247.00

28) Kieni 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1.	Power Transformer 132/33kV, 23MVA	pc	1	523,907.00	523,907.00
2.	Circuit breakers 132kV, 2000A, 31.5kA	set	1	40,749.00	40,749.00
3.	Circuit breakers 132kV, 800A, 31.5kA	set	1	30,320.00	30,320.00
4.	Circuit breakers 33kV 800A, 25kA rms	set	5	13,341.00	66,705.00
5.	Auxiliary Transformer 132/33kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				671,181

29) Sotik 132kV Switching Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Circuit Breakers 132 kV	pcs	3	122,247.00
	TOTAL INSURABLE			122,247.00

30) Bomet 132/33Kv Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Power Transformer 23MVA 132/33kV	pcs	1	444,214.45	444,214.45
2	Circuit Breakers 132kV	pcs	3	38,000.00	114,000.00
3	Circuit Breakers 33kV	pcs	7	26,665.00	186,655.00
4	Auxiliary Transformer 132/33kV	pc	1	10,500.00	10,500.00
	TOTAL INSURABLE				755,369.45

31) Nanyuki 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit Breakers 132kV	pcs	3	33,369.00	100,107.00
	TOTAL INSURABLE				100,107.00

32) Awendo Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1.	132kV Circuit Breakers	set	1	71,569.90
2.	132/33kV Power Transformer	No.	1	445,000.00
3.	Auxiliary supply transformer 33/11kV	No.	1	10,500.00
	TOTAL INSURABLE			527,069.90

33) Ndhiwa 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1.	132/33kV, 23MVA Power Transformer	pcs	1	675,793.09
2.	132kV Circuit Breakers	set	3	197,441.98
3.	Control Building	Lumpsum	1	202,017.62
4.	Auxiliary Transformer	Pcs	1	10,622.22
	TOTAL INSURABLE			1,085,874.91

34) Kitale 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1.	132/33kV, 23MVA Power Transformer	pcs	2	1,351,586.00
2.	132kV Circuit Breakers	set	3	197,441.98
3.	Circuit Breakers 33kV	pcs	4	139,663.68
4.	Auxiliary Transformer	Pcs	1	10,622.22
	TOTAL INSURABLE			1,699,313.88

35) Konza 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1.	132/33kV, 23MVA Power Transformer	pcs	1	675,793.09
2.	132kV Circuit Breakers	set	4	263,255.98
3.	Auxiliary Transformer	Pcs	1	10,622.22
	TOTAL INSURABLE			949,671.29

36) Machakos 132/33kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1.	132/33kV, 23MVA Power Transformer	pcs	1	675,793.09
2.	132kV Circuit Breakers	set	1	65,814.00
3.	Auxiliary Transformer	Pcs	1	10,622.22
	TOTAL INSURABLE			752,229.31

37) Suswa 220kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Reactor 60Mvar 220kV	pcs	1	1,212,200.00
2	40 Mvar 220kV Reactor	pcs	1	947,340.36
3	Circuit Breakers 220kV	pcs	17	1,365,244.50
4	Auxiliary Transformer 33/.430kV	pc	1	10,500.00
	TOTAL INSURABLE			3,535,284.86

38) Sondu 132kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit breakers 132kV, 2000A, 31.5kA	set	3	40,749.00	122,247.00
	TOTAL INSURABLE				122,247.00

39) Sangoro 132kV Substation

S/No	Equipment To Insure	Unit	Qty	Unit Value (USD)	Total Insurable Value (USD)
1	Circuit breakers 132kV, 2000A, 31.5kA	set	1	40,749.00	40,749.00
	TOTAL INSURABLE				40,749.00

40) Olkaria 1AU 220/132kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Power Transformer 105MVA 220/132kV	pcs	1	1,320,500.00
2	Circuit Breakers 220kV	pcs	7	562,159.50
3	Circuit Breakers 132kV	pcs	3	122,247.00

	TOTAL INSURABLE			2,004,906.5
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41) Olkaria IV 220/132kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Circuit Breakers 220kV	pcs	4	321,243.00
	TOTAL INSURABLE			321,243.00

42) Isinya 220kV Substation

S/No	Equipment To Insure	Unit	Qty	Total Insurable Value (USD)
1	Circuit Breakers 220kV	pcs	8	281,823.56
2	Power VT's	set	1	47,482.43
	TOTAL INSURABLE			329,305.99

43) Loiyangalani 400kV Substation

S/No	Equipment to Insure	Unit	Qty	Total Insurable Value (USD)
1	Circuit Breakers 220kV	pcs	12	2,543,989.44
2	Capacitive VT's	set	9	154,746.00
3	100MVar 400kV Shunt Reactors + Neutral Reactors	pcs	2	4,140,763.45
	TOTAL INSURABLE			6,839,498.89