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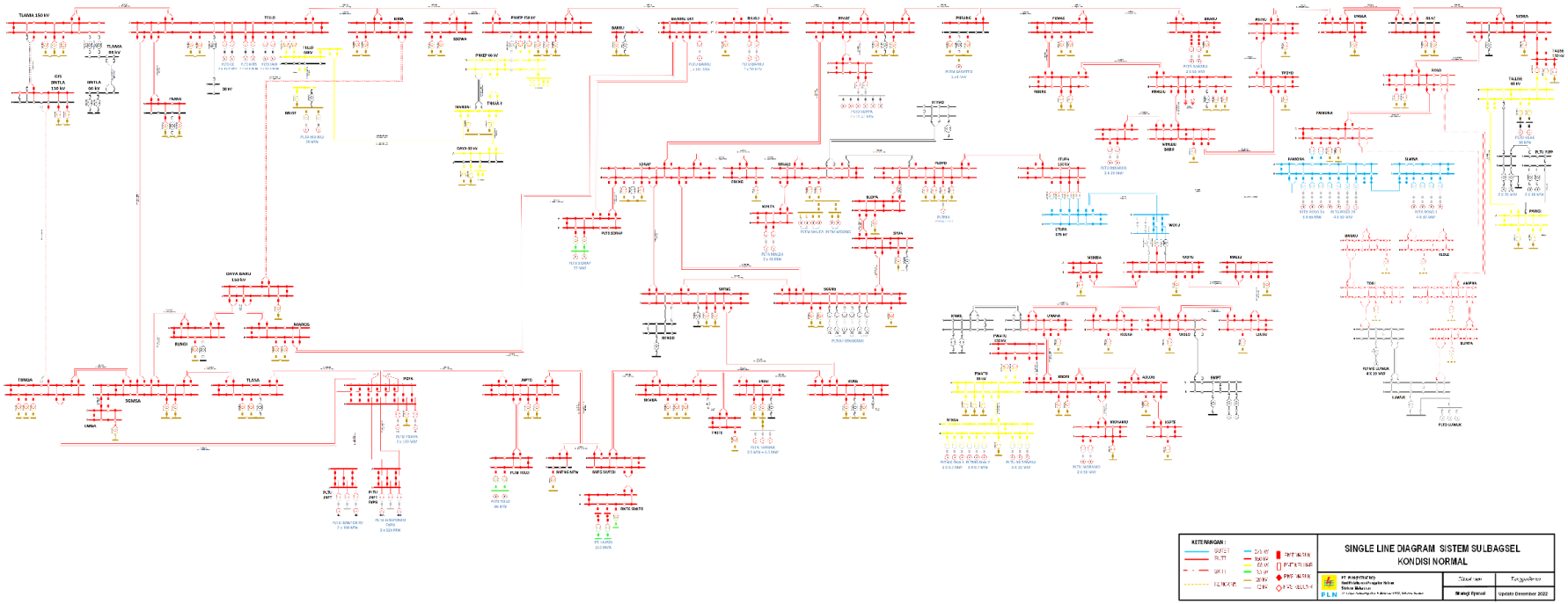
LAMPIRAN

Lampiran 1 *Single Line Diagram* (SLD) Sistem Kelistrikan SULBAGSEL



Lampiran 2 Data Frekuensi Sambaran Petir di Wilayah Sulawesi Selatan (2021-2023)

Lampiran 1b. Data Frekuensi Sambaran Petir
Nomor : e.B/GF.02.02/061/KMKS/VIII/2024
Tanggal : 7 Agustus 2024

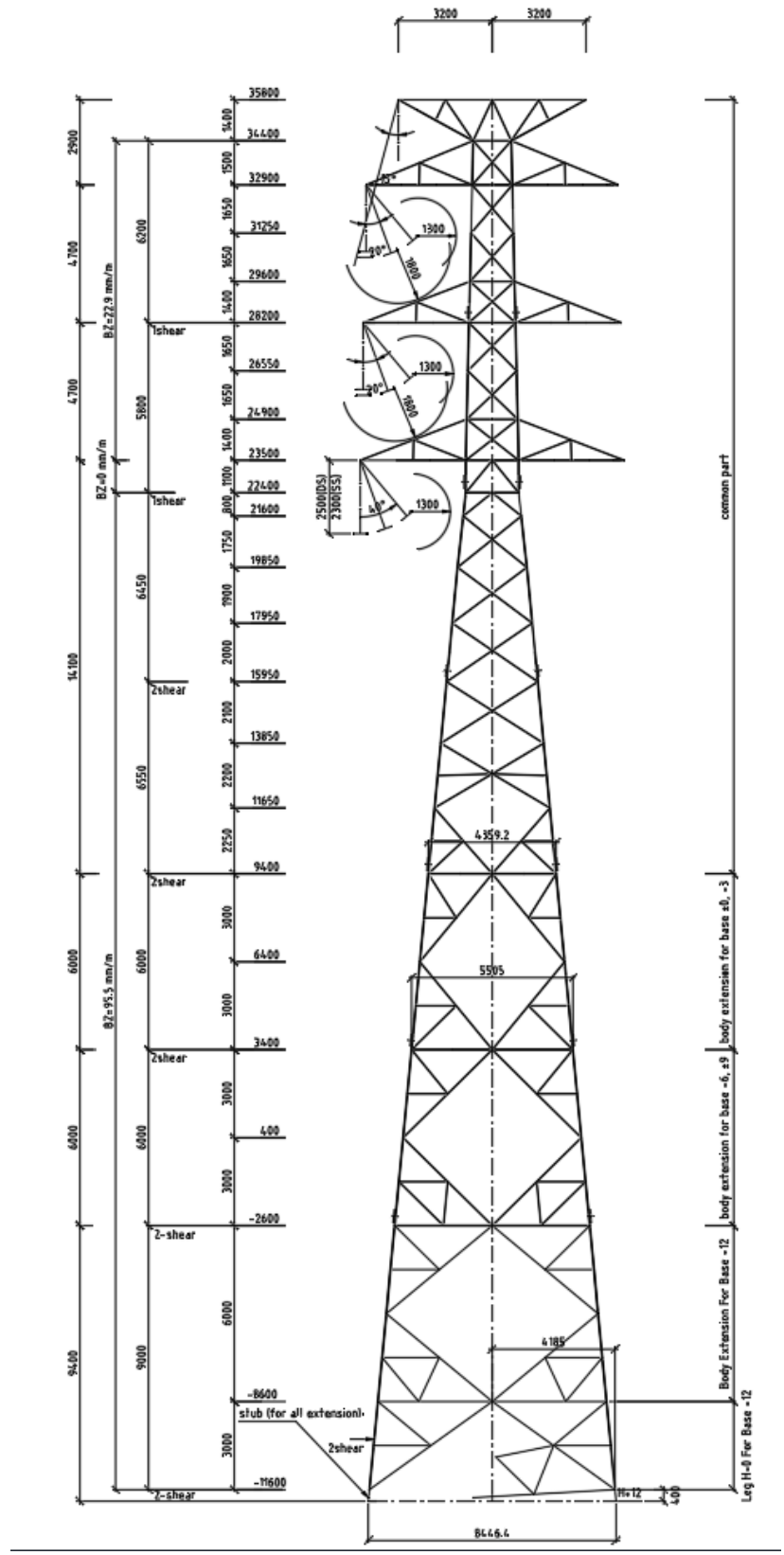
N0	Nama Kabupaten	Jumlah Sambaran Petir
1	Bantaeng	13526
2	Barru	48727
3	Bone	1383898
4	Bulukumba	33211
5	Enrekang	9284
6	Gowa	455852
7	Jeneponto	51858
8	Kepulauan Selayar	2935
9	Kota Makassar	46945
10	Kota Palopo	1427
11	Kota Pare Pare	833
12	Luwu	18684
13	Luwu Timur	25828
14	Luwu Utara	28586
15	Maros	884625
16	Pangkajene Kepulauan	71886
17	Pinrang	7194
18	Sidenreng Rappang	13792
19	Sinjai	195711
20	Soppeng	33608
21	Takalar	60722
22	Tana Toraja	6741
23	Toraja Utara	4436
24	Wajo	33385

Gowa, 7 Agustus 2024

Pemberi Informasi

Muh Zulkifli Hasma

Lampiran 3 Konstruksi *Tower* Transmisi Tipe AA Sulawesi Selatan



Sumber: PT. PLN (Persero)

Lampiran 4 Spesifikasi *Transmission Line Arrester* (TLA)

SIEMENS energy

Technical Datasheet **Offer number: 27179335** **Attachment**

H-Pos: 200; 3EL2 060-2LF31-8ZA2-Z X53 T23 **Cage design**

System Information		
Highest Voltage of Equipment (Um)	72,5	kV
Basic Insulation Level (BIL)	325	kV
Maximum altitude of installation (a.s.l.)	1000	m
Neutral system earthing	solid	
Power Frequency	48 ... 62	Hz
Electrical data		
Applied Standard	IEC 60099-4	
Arrester classification		
Designation	SM	
Nominal discharge current (In, 8/20 µs)	10	kA
Qrs	2	C
Wth	7	kJ/kV
Rated voltage (Ur)	60	kV
Maximum continuous operating voltage (Uc / MCOV)	48	kV
Line discharge class	3	
Long duration impulse current withstand (2 ms)	1 100	A
High current impulse withstand (4/10 µs)	100	kA
Rated short circuit current (0,2 s)	65,0	kA
Maximum residual voltage at :		
5 kA 8/20 µs	133	kV
10 kA 8/20 µs	141	kV
20 kA 8/20 µs	157	kV
40 kA 8/20 µs	178	kV
500 A 30/60 µs	113	kV
1 kA 30/60 µs	116	kV
2 kA 30/60 µs	121	kV
Temporary overvoltage for 1 s	67,2	kV
Temporary overvoltage for 10 s	63,0	kV
Energy discharge capability - thermal	8,00	kJ/kV,
Energy discharge capability - impulse	5,00	kJ/kV,
Power Frequency withstand voltage (1min, wet)	170	kV
Lightning Impulse withstand voltage (1,2/50 µs)	365	kV
Mechanical data		
Height (H)	705	mm
Minimum creepage distance	2 340	mm
Number of units	1	
Weight (G)	33,2	kg
Color of housing	grey	
Specified long-term load SLL (F_{stat})	2100	N
Specified short-term load SSL (F_{dyn})	5250	N
Drawing number	GP TP SW / 27179335.0200	
Accessories		
Line terminal	DIN/NEMA flat 40²...50² mm, hot dip galvanised	
Ground terminal	Insulated, 4 hole, 200x200 mm, A2	
Accessory 1	3EX5 050-0A Surge Monitor Surge counter with leakage current meter (0-10 mA) 5 digit cyclometer at least 5 counts/second Frequency rating: 50Hz/60Hz/DC Voltage across/drop: No increase of surge	

PT. AMPERATECH SOLUSINDO GLOBAL

SIEMENS energy

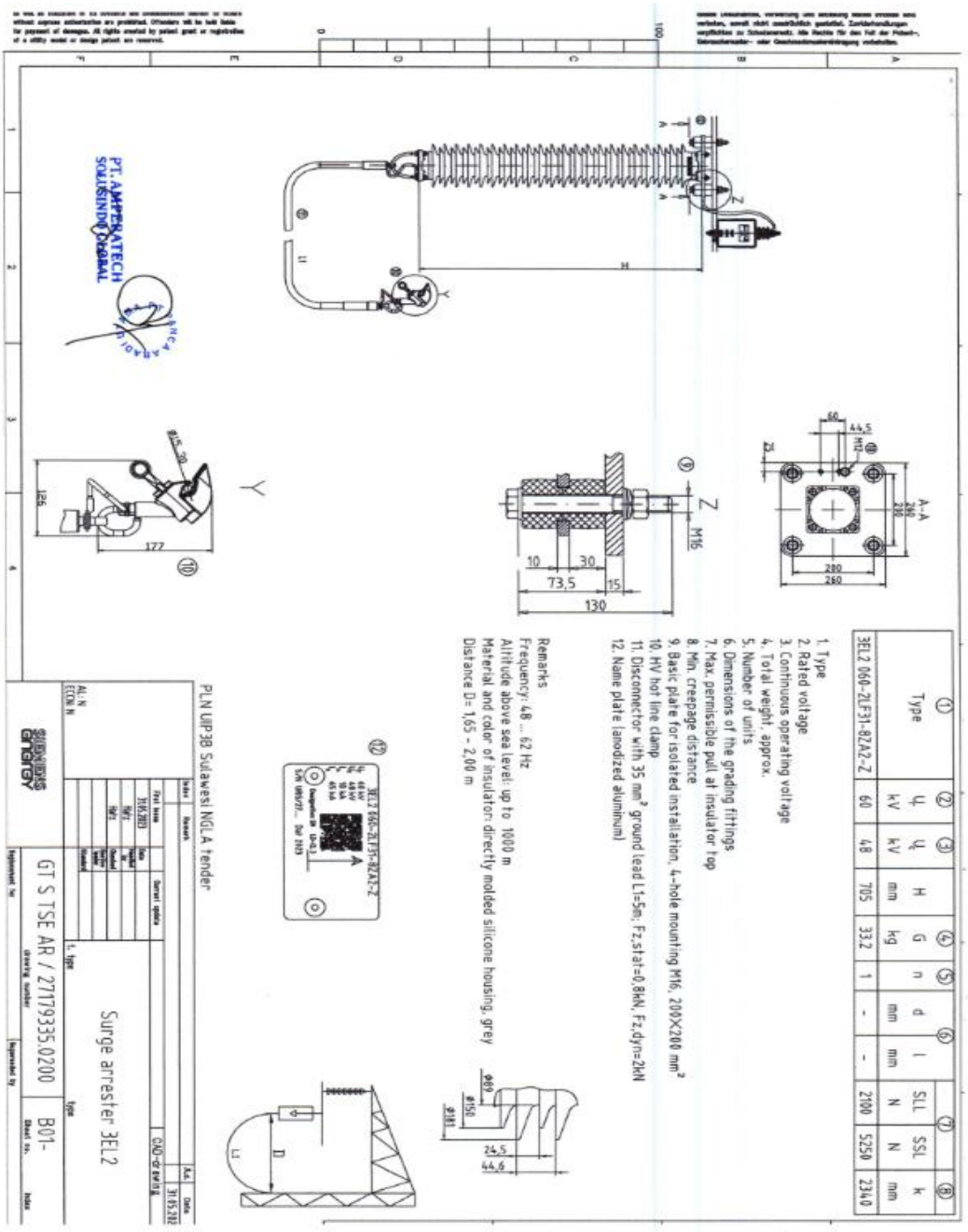
Technical Datasheet **Offer number: 27179335** **Attachment**

arrester protection level
Min. count current 200 amps 8/20 µs
IP class: IP67
Drawing: 3HH 802 67094
Please consider a maximum earth lead of 2m
for arrester-counter connection!
Recommended cross section of earth lead:
35mm²

Accessory 2

T23: TLA-DIS + Ltg 35° L=3m

AL: N
ECCN: N



① Type	② Ur	③ Us	H	④ G	⑤ n	d	l	⑦ SLL	SSL	⑧ k
	kV	kV	mm	kg		mm	mm	N	N	mm
3EL2 060-2LF31-8ZA2-Z	60	48	705	33.2	1	-	-	2100	5250	2340

Lampiran 5 Data Kerapatan Paparan Petir Sulawesi Tahun 2021

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
1	UPT MAKASSAR	ANDOLO-KASIPUTE	150	203	6
2	UPT MAKASSAR	BAKARU-PARE PARE	150	868	17
3	UPT MAKASSAR	BAKARU-TUPPU	150	0	0
4	UPT MAKASSAR	BALUSU-MAROS	150	1467	20
5	UPT MAKASSAR	BALUSU-PANGKEP	150	1493	30
6	UPT MAKASSAR	BANTAENG NEW-BANTAENG SWITCHING	150	44	5
7	UPT MAKASSAR	BANTAENG SWITCHING -BULUKUMBA	150	33	5
8	UPT MAKASSAR	BOLANGI-SUNGGUMINASA	150	151	12
9	UPT MAKASSAR	BULUKUMBA-TANETE	150	93	4
10	UPT MAKASSAR	DAYABARU-BOLANGI	150	180	10
11	UPT MAKASSAR	JENEPONTO-BANTAENG NEW	150	66	4
12	UPT MAKASSAR	KENDARI-ANDOLO	150	1487	31
13	UPT MAKASSAR	KENDARI-UNAAHA	150	1446	21
14	UPT MAKASSAR	KIMA-TELLO	150	61	5
15	UPT MAKASSAR	KOLAKA-UNAAHA	150	394	6
16	UPT MAKASSAR	LASUSUA-WOLO	150	440	11
17	UPT MAKASSAR	MAROS-DAYABARU	150	237	10
18	UPT MAKASSAR	MORAMO-KENDARI	150	340	31
19	UPT MAKASSAR	PARE PARE-BALUSU	150	399	13
20	UPT MAKASSAR	PARE PARE-SIDRAP	150	498	18
21	UPT MAKASSAR	PARE PARE-SUPPA	150	77	6
22	UPT MAKASSAR	PINRANG-PARE PARE	150	436	15
23	UPT MAKASSAR	PLTB SIDRAP-BALUSU	150	396	13
24	UPT MAKASSAR	PUNAGAYA-JENEPONTO	150	132	8
25	UPT MAKASSAR	PUNAGAYA-TANJUNG BUNGA	150	271	5
26	UPT MAKASSAR	PUUWATU-KENDARI	150	299	12
27	UPT MAKASSAR	SENGKANG-SIDRAP	150	599	11
28	UPT MAKASSAR	SENGKANG-SIWA	150	1339	18
29	UPT MAKASSAR	SENGKANG-SOPPENG	150	157	5
30	UPT MAKASSAR	SIDRAP-MAKALE	150	496	10
31	UPT MAKASSAR	SIDRAP-PLTB SIDRAP	150	43	3
32	UPT MAKASSAR	SIDRAP-SOPPENG	150	317	9
33	UPT MAKASSAR	SINJAI-BONE	150	1026	18
34	UPT MAKASSAR	SOPPENG-BONE	150	208	10
35	UPT MAKASSAR	SUNGGUMINASA-LANNA	150	419	15
36	UPT MAKASSAR	SUNGGUMINASA-TALLASA	150	271	12
37	UPT MAKASSAR	SUNGGUMINASA-TANJUNG BUNGA	150	116	8
38	UPT MAKASSAR	TALLASA-PUNAGAYA	150	78	4
39	UPT MAKASSAR	TANETE-SINJAI	150	216	8

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
40	UPT MAKASSAR	TELLO-PANAKUKANG	150	44	5
41	UPT MAKASSAR	TELLO-SUNGGUMINASA	150	219	11
42	UPT MAKASSAR	TELLO-TELLO LAMA	150	86	8
43	UPT MAKASSAR	TUPPU-PINRANG	150	1256	28
44	UPT MAKASSAR	WOLO-KOLAKA	150	465	9
45	UPT MAKASSAR	PLTMG-BAU BAU	150	25	3
46	UPT MAKASSAR	PLTMG-RAHA	150	0	0
47	UPT MAKASSAR	PANGKEP-TONASA	66	14	2
48	UPT MAKASSAR	TANASA-PUUWATU	66	349	12
49	UPT MAKASSAR	TELLO-BORONGLOE	66	334	16
50	UPT MAKASSAR	TELLO-MANDAI	66	303	12
51	UPT MAKASSAR	MANDAI-PANGKEP	66	403	12
52	UPT MAKASSAR	TELLO-BARAWAJA	30	44	5
53	UPT PALU	MAJENE-MAMUJU	150	398	4
54	UPT PALU	MAKALE-PALOPO	150	1343	25
55	UPT PALU	MALILI-LASUSUA	150	811	8
56	UPT PALU	MAMUJU NEW-TOPOYO	150	776	15
57	UPT PALU	MAMUJU-MAMUJU NEW	150	69	4
58	UPT PALU	PAMONA-POSO	150	192	6
59	UPT PALU	PLTU-TALISE	150	5	1
60	UPT PALU	POLMAS-MAJENE	150	660	16
61	UPT PALU	POSO-SIDERA	150	468	8
62	UPT PALU	SIDERA-SILAE	150	0	0
63	UPT PALU	SIDERA-TALISE	150	0	0
64	UPT PALU	SILAE-PASANGKAYU	150	210	4
65	UPT PALU	SIWA-BELOPA	150	855	17
66	UPT PALU	BELOPA-PALOPO	150	1209	34
67	UPT PALU	TOPOYO-PASANGKAYU	150	464	6
68	UPT PALU	WOTU-MALILI	150	593	15
69	UPT PALU	WOTU-MASAMBA	150	0	0
70	UPT PALU	SINGLE PHI-PARIGI	66	32	2
71	UPT MANADO	GIS TELING-PANIKI	150	13	2
72	UPT MANADO	GOBAR-BOTUPINGGE	150	9	2
73	UPT MANADO	ISIMU-GOBAR	150	5	1
74	UPT MANADO	ISIMU-GOBAR-BOTUPINGGE	150	0	0
75	UPT MANADO	ISIMU-TANJUNGKARANG	150	30	2
76	UPT MANADO	ISIMU-TILAMUTA	150	24	1
77	UPT MANADO	KAWANGKOAN-LOPANA	150	9	1
78	UPT MANADO	LAHENDONG 1.2-KAWANGKOAN	150	0	0
79	UPT MANADO	LAHENDONG 3.4 - LAHENDONG 1.2	150	0	0
80	UPT MANADO	LOLAK-BOROKO	150	51	3
81	UPT MANADO	LOPANA-GIS TELING	150	8	1

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
82	UPT MANADO	LOPANA-OTAM	150	26	2
83	UPT MANADO	LOPANA-PLTU AMURANG	150	17	1
84	UPT MANADO	MALEO-MARISA	150	0	0
85	UPT MANADO	OTAM-LOLAK	150	19	2
86	UPT MANADO	PANIKI-TANJUNG MERAH	150	10	1
87	UPT MANADO	SINGLE PHI-ANGGREK	150	6	1
88	UPT MANADO	SINGLE PHI-MOLOTABU	150	0	0
89	UPT MANADO	TANJUNG KARANG-BOROKO	150	12	1
90	UPT MANADO	TANJUNG MERAH-PLTU KEMA	150	0	0
91	UPT MANADO	TILAMUTA-TANJUNG KARANG	150	0	0
92	UPT MANADO	TILAMUTA-MARISA	150	6	1
93	UPT MANADO	TOMOHON-PLTP LAHENDONG 3.4	150	9	4
94	UPT MANADO	BITUNG-LIKUPANG	66	0	0
95	UPT MANADO	PLTA TANGGARI 1-SAWANGAN	66	5	1
96	UPT MANADO	PLTA TANGGARI 2-SAWANGAN	66	0	0
97	UPT MANADO	RANOMUUT-TELING	66	0	0
98	UPT MANADO	SAWANGAN-BITUNG	66	7	1
99	UPT MANADO	SAWANGAN-RANOMUUT	66	5	1
100	UPT MANADO	TOMOHON-TASIKRIA	66	0	0
101	UPT MANADO	TOMOHON-TELING	66	14	1
102	UPT MANADO	TONSEA LAMA-SAWANGAN	66	12	2
103	UPT MANADO	TONSEA LAMA-TOMOHON	66	0	0
104	UPT MANADO	PLTA TONSEA LAMA-TONSEA LAMA	30	0	0

Lampiran 6 Data Kerapatan Paparan Petir Sulawesi Tahun 2022

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
1	UPT MAKASSAR	ANDOLO-KASIPUTE	150	1323	33
2	UPT MAKASSAR	BAKARU-PARE PARE	150	3405	55
3	UPT MAKASSAR	BAKARU-TUPPU	150	0	0
4	UPT MAKASSAR	BALUSU-MAROS	150	1536	361
5	UPT MAKASSAR	BALUSU-PANGKEP	150	2909	42
6	UPT MAKASSAR	BANTAENG NEW-BANTAENG SWITCHING	150	0	0
7	UPT MAKASSAR	BANTAENG SWITCHING-BULUKUMBA	150	0	0
8	UPT MAKASSAR	BOLANGI-SUNGGUMINASA	150	0	0
9	UPT MAKASSAR	BULUKUMBA-TANETE	150	0	0
10	UPT MAKASSAR	DAYABARU-BOLANGI	150	0	0
11	UPT MAKASSAR	JENEPONTO-BANTAENG NEW	150	0	0
12	UPT MAKASSAR	KENDARI-ANDOLO	150	1142	15
13	UPT MAKASSAR	KENDARI-UNAAHA	150	501	10
14	UPT MAKASSAR	KIMA-TELLO	150	0	0
15	UPT MAKASSAR	KOLAKA-UNAAHA	150	259	6
16	UPT MAKASSAR	LASUSUA-WOLO	150	257	7
17	UPT MAKASSAR	MAROS-DAYABARU	150	0	0
18	UPT MAKASSAR	MORAMO-KENDARI	150	214	11
19	UPT MAKASSAR	PARE PARE-BALUSU	150	0	0
20	UPT MAKASSAR	PARE PARE-SIDRAP	150	0	0
21	UPT MAKASSAR	PARE PARE-SUPPA	150	0	0
22	UPT MAKASSAR	PINRANG-PARE PARE	150	1719	55
23	UPT MAKASSAR	PLTB SIDRAP-BALUSU	150	0	0
24	UPT MAKASSAR	PUNAGAYA-JENEPONTO	150	15	2
25	UPT MAKASSAR	PUNAGAYA-TANJUNG BUNGA	150	7	3
26	UPT MAKASSAR	PUUWATU-KENDARI	150	702	31
27	UPT MAKASSAR	SENGKANG-SIDRAP	150	0	0
28	UPT MAKASSAR	SENGKANG-SIWA	150	0	0
29	UPT MAKASSAR	SENGKANG-SOPPENG	150	0	0
30	UPT MAKASSAR	SIDRAP-MAKALE	150	1908	29
31	UPT MAKASSAR	SIDRAP-PLTB SIDRAP	150	0	0
32	UPT MAKASSAR	SIDRAP-SOPPENG	150	0	0
33	UPT MAKASSAR	SINJAI-BONE	150	0	0
34	UPT MAKASSAR	SOPPENG-BONE	150	0	0
35	UPT MAKASSAR	SUNGGUMINASA-LANNA	150	0	0
36	UPT MAKASSAR	SUNGGUMINASA-TALLASA	150	0	0
37	UPT MAKASSAR	SUNGGUMINASA-TANJUNG BUNGA	150	0	0
38	UPT MAKASSAR	TALLASA-PUNAGAYA	150	0	0
39	UPT MAKASSAR	TANETE-SINJAI	150	0	0
40	UPT MAKASSAR	TELLO-PANAKUKANG	150	0	0
41	UPT MAKASSAR	TELLO-SUNGGUMINASA	150	0	0

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
42	UPT MAKASSAR	TELLO-TELLO LAMA	150	0	0
43	UPT MAKASSAR	TUPPU-PINRANG	150	0	0
44	UPT MAKASSAR	WOLO-KOLAKA	150	197	10
45	UPT MAKASSAR	PLTMG-BAU BAU	150	10	2
46	UPT MAKASSAR	PLTMG-RAHA	150	0	0
47	UPT MAKASSAR	PANGKEP-TONASA	66	0	0
48	UPT MAKASSAR	TANASA-PUUWATU	66	0	0
49	UPT MAKASSAR	TELLO-BORONGLOE	66	0	0
50	UPT MAKASSAR	TELLO-MANDAI	66	0	0
51	UPT MAKASSAR	MANDAI-PANGKEP	66	0	0
52	UPT MAKASSAR	TELLO-BARAWAJA	30	0	0
53	UPT PALU	MAJENE-MAMUJU	150	1221	22
54	UPT PALU	MAKALE-PALOPO	150	0	0
55	UPT PALU	MALILI-LASUSUA	150	810	13
56	UPT PALU	MAMUJU NEW-TOPOYO	150	195	6
57	UPT PALU	MAMUJU-MAMUJU NEW	150	141	7
58	UPT PALU	PAMONA-POSO	150	570	13
59	UPT PALU	PLTU-TALISE	150	0	0
60	UPT PALU	POLMAS-MAJENE	150	513	14
61	UPT PALU	POSO-SIDERA	150	2217	18
62	UPT PALU	SIDERA-SILAE	150	0	0
63	UPT PALU	SIDERA-TALISE	150	0	0
64	UPT PALU	SILAE-PASANGKAYU	150	243	7
65	UPT PALU	SIWA-BELOPA	150	1751	31
66	UPT PALU	BELOPA-PALOPO	150	2173	37
67	UPT PALU	TOPOYO-PASANGKAYU	150	2031	25
68	UPT PALU	WOTU-MALILI	150	2062	40
69	UPT PALU	WOTU-MASAMBA	150	23586	248
70	UPT PALU	SINGLE PHI-PARIGI	66	264	12
71	UPT MANADO	GIS TELING-PANIKI	150	0	0
72	UPT MANADO	GOBAR-BOTUPINGGE	150	0	0
73	UPT MANADO	ISIMU-GOBAR	150	0	0
74	UPT MANADO	ISIMU-GOBAR-BOTUPINGGE	150	14	2
75	UPT MANADO	ISIMU-TANJUNGKARANG	150	30	2
76	UPT MANADO	ISIMU-TILAMUTA	150	0	0
77	UPT MANADO	KAWANGKOAN-LOPANA	150	0	0
78	UPT MANADO	LAHENDONG 1.2-KAWANGKOAN	150	0	0
79	UPT MANADO	LAHENDONG 3.4 - LAHENDONG 1.2	150	0	0
80	UPT MANADO	LOLAK-BOROKO	150	0	0
81	UPT MANADO	LOPANA-GIS TELING	150	0	0
82	UPT MANADO	LOPANA-OTAM	150	0	0
83	UPT MANADO	LOPANA-PLTU AMURANG	150	0	0
84	UPT MANADO	MALEO-MARISA	150	0	0

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
85	UPT MANADO	OTAM-LOLAK	150	0	0
86	UPT MANADO	PANIKI-TANJUNG MERAH	150	0	0
87	UPT MANADO	SINGLE PHI-ANGGREK	150	0	0
88	UPT MANADO	SINGLE PHI-MOLOTABU	150	0	0
89	UPT MANADO	TANJUNG KARANG-BOROKO	150	0	0
90	UPT MANADO	TANJUNG MERAH-PLTU KEMA	150	0	0
91	UPT MANADO	TILAMUTA-TANJUNG KARANG	150	0	0
92	UPT MANADO	TILAMUTA-MARISA	150	0	0
93	UPT MANADO	TOMOHON-PLTP LAHENDONG 3.4	150	0	0
94	UPT MANADO	BITUNG-LIKUPANG	66	0	0
95	UPT MANADO	PLTA TANGGARI 1-SAWANGAN	66	0	0
96	UPT MANADO	PLTA TANGGARI 2-SAWANGAN	66	0	0
97	UPT MANADO	RANOMUUT-TELING	66	0	0
98	UPT MANADO	SAWANGAN-BITUNG	66	0	0
99	UPT MANADO	SAWANGAN-RANOMUUT	66	0	0
100	UPT MANADO	TOMOHON-TASIKRIA	66	0	0
101	UPT MANADO	TOMOHON-TELING	66	0	0
102	UPT MANADO	TONSEA LAMA-SAWANGAN	66	0	0
103	UPT MANADO	TONSEA LAMA-TOMOHON	66	0	0
104	UPT MANADO	PLTA TONSEA LAMA-TONSEA LAMA	30	0	0

Lampiran 7 Data Kerapatan Paparan Petir Sulawesi Tahun 2023

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
1	UPT MAKASSAR	ANDOLO-KASIPUTE	150	0	0
2	UPT MAKASSAR	BAKARU-PARE PARE	150	0	0
3	UPT MAKASSAR	BAKARU-TUPPU	150	0	0
4	UPT MAKASSAR	BALUSU-MAROS	150	0	0
5	UPT MAKASSAR	BALUSU-PANGKEP	150	0	0
6	UPT MAKASSAR	BANTAENG NEW-BANTAENG SWITCHING	150	0	0
7	UPT MAKASSAR	BANTAENG SWITCHING-BULUKUMBA	150	0	0
8	UPT MAKASSAR	BOLANGI-SUNGGUMINASA	150	0	0
9	UPT MAKASSAR	BULUKUMBA-TANETE	150	0	0
10	UPT MAKASSAR	DAYABARU-BOLANGI	150	0	0
11	UPT MAKASSAR	JENEPONTO-BANTAENG NEW	150	0	0
12	UPT MAKASSAR	KENDARI-ANDOLO	150	4005	41
13	UPT MAKASSAR	KENDARI-UNAAHA	150	2866	40
14	UPT MAKASSAR	KIMA-TELLO	150	0	0
15	UPT MAKASSAR	KOLAKA-UNAAHA	150	1793	44
16	UPT MAKASSAR	LASUSUA-WOLO	150	1008	19
17	UPT MAKASSAR	MAROS-DAYABARU	150	0	0
18	UPT MAKASSAR	MORAMO-KENDARI	150	784	27
19	UPT MAKASSAR	PARE PARE-BALUSU	150	0	0
20	UPT MAKASSAR	PARE PARE-SIDRAP	150	0	0
21	UPT MAKASSAR	PARE PARE-SUPPA	150	0	0
22	UPT MAKASSAR	PINRANG-PARE PARE	150	0	0
23	UPT MAKASSAR	PLTB SIDRAP-BALUSU	150	0	0
24	UPT MAKASSAR	PUNAGAYA-JENEPONTO	150	0	0
25	UPT MAKASSAR	PUNAGAYA-TANJUNG BUNGA	150	0	0
26	UPT MAKASSAR	PUUWATU-KENDARI	150	821	31
27	UPT MAKASSAR	SENGKANG-SIDRAP	150	0	0
28	UPT MAKASSAR	SENGKANG-SIWA	150	0	0
29	UPT MAKASSAR	SENGKANG-SOPPENG	150	0	0
30	UPT MAKASSAR	SIDRAP-MAKALE	150	0	0
31	UPT MAKASSAR	SIDRAP-PLTB SIDRAP	150	0	0
32	UPT MAKASSAR	SIDRAP-SOPPENG	150	0	0
33	UPT MAKASSAR	SINJAI-BONE	150	0	0
34	UPT MAKASSAR	SOPPENG-BONE	150	0	0
35	UPT MAKASSAR	SUNGGUMINASA-LANNA	150	0	0
36	UPT MAKASSAR	SUNGGUMINASA-TALLASA	150	0	0
37	UPT MAKASSAR	SUNGGUMINASA-TANJUNG BUNGA	150	0	0
38	UPT MAKASSAR	TALLASA-PUNAGAYA	150	0	0
39	UPT MAKASSAR	TANETE-SINJAI	150	0	0
40	UPT MAKASSAR	TELLO-PANAKUKANG	150	0	0

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
41	UPT MAKASSAR	TELLO-SUNGGUMINASA	150	0	0
42	UPT MAKASSAR	TELLO-TELLO LAMA	150	0	0
43	UPT MAKASSAR	TUPPU-PINRANG	150	0	0
44	UPT MAKASSAR	WOLO-KOLAKA	150	0	0
45	UPT MAKASSAR	PLTMG-BAU BAU	150	0	0
46	UPT MAKASSAR	PLTMG-RAHA	150	114	5
47	UPT MAKASSAR	PANGKEP-TONASA	66	293	25
48	UPT MAKASSAR	TANASA-PUUWATU	66	2291	60
49	UPT MAKASSAR	TELLO-BORONGLOE	66	569	16
50	UPT MAKASSAR	TELLO-MANDAI	66	881	31
51	UPT MAKASSAR	MANDAI-PANGKEP	66	0	0
52	UPT MAKASSAR	TELLO-BARAWAJA	30	0	0
53	UPT PALU	MAJENE-MAMUJU	150	4679	49
54	UPT PALU	MAKALE-PALOPO	150	0	0
55	UPT PALU	MALILI-LASUSUA	150	479	7
56	UPT PALU	MAMUJU NEW-TOPOYO	150	776	15
57	UPT PALU	MAMUJU-MAMUJU NEW	150	410	13
58	UPT PALU	PAMONA-POSO	150	0	0
59	UPT PALU	PLTU-TALISE	150	67	4
60	UPT PALU	POLMAS-MAJENE	150	0	0
61	UPT PALU	POSO-SIDERA	150	0	0
62	UPT PALU	SIDERA-SILAE	150	0	0
63	UPT PALU	SIDERA-TALISE	150	168	12
64	UPT PALU	SILAE-PASANGKAYU	150	1473	23
65	UPT PALU	SIWA-BELOPA	150	0	0
66	UPT PALU	BELOPA-PALOPO	150	3735	68
67	UPT PALU	TOPOYO-PASANGKAYU	150	4811	40
68	UPT PALU	WOTU-MALILI	150	125	8
69	UPT PALU	WOTU-MASAMBA	150	12047	142
70	UPT PALU	SINGLE PHI-PARIGI	66	354	12
71	UPT MANADO	GIS TELING-PANIKI	150	0	0
72	UPT MANADO	GOBAR-BOTUPINGGE	150	66	4
73	UPT MANADO	ISIMU-GOBAR	150	138	4
74	UPT MANADO	ISIMU-GOBAR-BOTUPINGGE	150	204	4
75	UPT MANADO	ISIMU-TANJUNGKARANG	150	270	6
76	UPT MANADO	ISIMU-TILAMUTA	150	331	6
77	UPT MANADO	KAWANGKOAN-LOPANA	150	0	0
78	UPT MANADO	LAHENDONG 1.2-KAWANGKOAN	150	0	0
79	UPT MANADO	LAHENDONG 3.4 - LAHENDONG 1.2	150	0	0
80	UPT MANADO	LOLAK-BOROKO	150	769	11
81	UPT MANADO	LOPANA-GIS TELING	150	0	0
82	UPT MANADO	LOPANA-OTAM	150	0	0
83	UPT MANADO	LOPANA-PLTU AMURANG	150	0	0

No	UPT	PENGHANTAR	TEG (kV)	TOTAL JUMLAH PAPARAN PETIR (KIRI)	JUMLAH PAPARAN TERTINGGI
84	UPT MANADO	MALEO-MARISA	150	0	0
85	UPT MANADO	OTAM-LOLAK	150	0	0
86	UPT MANADO	PANIKI-TANJUNG MERAH	150	0	0
87	UPT MANADO	SINGLE PHI-ANGGREK	150	117	7
88	UPT MANADO	SINGLE PHI-MOLOTABU	150	0	0
89	UPT MANADO	TANJUNG KARANG-BOROKO	150	258	8
90	UPT MANADO	TANJUNG MERAH-PLTU KEMA	150	0	0
91	UPT MANADO	TILAMUTA-TANJUNG KARANG	150	0	0
92	UPT MANADO	TILAMUTA-MARISA	150	905	19
93	UPT MANADO	TOMOHON-PLTP LAHENDONG 3.4	150	0	0
94	UPT MANADO	BITUNG-LIKUPANG	66	0	0
95	UPT MANADO	PLTA TANGGARI 1-SAWANGAN	66	0	0
96	UPT MANADO	PLTA TANGGARI 2-SAWANGAN	66	0	0
97	UPT MANADO	RANOMUUT-TELING	66	0	0
98	UPT MANADO	SAWANGAN-BITUNG	66	0	0
99	UPT MANADO	SAWANGAN-RANOMUUT	66	0	0
100	UPT MANADO	TOMOHON-TASIKRIA	66	0	0
101	UPT MANADO	TOMOHON-TELING	66	0	0
102	UPT MANADO	TONSEA LAMA-SAWANGAN	66	0	0
103	UPT MANADO	TONSEA LAMA-TOMOHON	66	0	0
104	UPT MANADO	PLTA TONSEA LAMA-TONSEA LAMA	30	85	17

Lampiran 8 Standar BIL menurut IEEE STD C57.12.00-1993

Application	**Nominal System Voltage (kV rms)**	**Maximum System Voltage (from ANSI C84.1-1989 and ANSI C92.2-1987) (kV rms)**	**Basic Lightning Impulse Insulition Levels (BIL) in Common Use (kV crest)**				
Distribution	1.2		**30**				
	2.5		**45**				
	5		**60**				
	8.7		**75**				
	15		**95**				
	25		**150**	125			
	34.5		**200**	150	15		
	46	48.3	**250**	200			
	69	72.5	**350**	250			
Power	1.2		**45**	**30**			
	2.5		**60**	**45**			
	5		**75**	**60**			
	8.7		**95**	**75**			
	15		**110**	**95**			
	25		**150**				
	34.5		**200**				
	46	48.3	**250**	250	200		
	69	72.5	350	450	250		
	115	121	550	550	**450**	350	
	138	145	650	650	**550**	450	
	161	169	750	825	**650**	550	
	230	242	900	1050	825	**750**	650
	345	362	1175	1050	1050	900	
	500	550	1675	1550	1550	1425	1300
	765	800	2050	1925	1925	1800	

Lampiran 9 Data Eksisting Transmisi Bakaru – Pare-pare

No	Nama Transmisi	No Tower	Latitude	Longitude	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	Keterangan MRG	HASIL UKUR PENTANAHAN (Ohm)	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	T Bakaru - Tuppu #1	1	-3.47451	119.64877							1.06	2	6	-12.50	57.17	2.5582
2	T Bakaru - Tuppu #2	2	-3.47197	119.64896							0.92	2	7	-12.50	61.14	2.8780
3	T Bakaru - Tuppu #3	3	-3.47020	119.64874							0.56	2	7	-12.50	57.14	2.8780
4	T Bakaru - Tuppu #4	4	-3.46710	119.64849							1.05	2	6	-12.50	52.17	2.5582
5	T Bakaru - Tuppu #5	5	-3.46594	119.64771							0.65	2	6	-12.50	52.17	2.5582
6	T Bakaru - Tuppu #6	6	-3.46298	119.64565							1.14	2	6	-12.50	51	2.5582
7	T Bakaru - Tuppu #7	7	-3.46009	119.64298							0.41	1	4	-13.00	32.5	1.5989
8	T Bakaru - Tuppu #8	8	-3.45859	119.64071							0.56	1	3	-11.00	56.67	1.2791
9	T Bakaru - Tuppu #9	9	-3.45640	119.63737							2.05	1	3	-11.00	56.67	1.2791
10	T Bakaru - Tuppu #10	10	-3.45492	119.63486							1.19	1	3	-11.00	56.67	1.2791
11	T Bakaru - Tuppu #11	11	-3.45350	119.63256							1.83	2	3	-42.00	56.67	1.5989
12	T Bakaru - Tuppu #12	12	-3.45233	119.63031							0.83	2	3	-42.00	56.67	1.5989
13	T Bakaru - Tuppu #13	13	-3.45074	119.62816							0.39	2	3	-42.00	56.67	1.5989
14	T Bakaru - Tuppu #14	14	-3.44962	119.62663							0.64	2	2	-42.00	45.5	1.2791
15	T Bakaru - Tuppu #15	15	-3.44741	119.62345							0.82	1	0	-73.00	0	0.3198
16	T Bakaru - Tuppu #16	16	-3.44842	119.62072							0.37	2	0	-56.00	0	0.6396
17	T Bakaru - Tuppu #17	17	-3.44831	119.61673							0.53	4	0	-60.25	0	1.2791
18	T Bakaru - Tuppu #18	18	-3.44820	119.61415							0.17	4	0	-53.25	0	1.2791
19	T Bakaru - Tuppu #19	19	-3.44992	119.61027							1.46	5	0	-44.80	0	1.5989
20	T Bakaru - Tuppu #20	20	-3.45133	119.60665							0.67	7	1	-63.86	93	2.5582
21	T Bakaru - Tuppu #21	21	-3.45127	119.60375							1.03	6	1	-65.33	93	2.2384
22	T Bakaru - Tuppu #22	22	-3.45063	119.60000							1.43	4	1	-60.75	93	1.5989
23	T Bakaru - Tuppu #23	23	-3.45036	119.59776							1.15	5	1	-24.20	93	1.9187
24	T Bakaru - Tuppu #25	24	-3.44662	119.59185							1.09	4	1	-26.75	93	1.5989
25	T Bakaru - Tuppu #24	25	-3.44856	119.59486							0.83	4	1	-33.50	45	1.5989
26	T Bakaru - Tuppu #26	26	-3.44506	119.58911							0.95	2	1	-30.00	45	0.9593
27	T Bakaru - Tuppu #27	27	-3.44353	119.58682							0.46	4	1	-75.00	45	1.5989
28	T Bakaru - Tuppu #28	28	-3.44244	119.58368							0.62	5	0	-62.60	0	1.5989
29	T Bakaru - Tuppu #29	29	-3.44141	119.58030							1.48	10	0	-42.40	0	3.1978
30	T Bakaru - Tuppu #30	30	-3.44048	119.57702							0.92	18	0	-41.00	0	5.7560
31	T Bakaru - Tuppu #31	31	-3.43966	119.57429								17	0	-32.88	0	5.4362
32	T Bakaru - Tuppu #32	32	-3.43918	119.57253								17	0	-34.24	0	5.4362
33	T Bakaru - Tuppu #33	33	-3.43814	119.56896								16	0	-33.38	0	5.1164
34	T Bakaru - Tuppu #34	34	-3.43752	119.56678							0.69	15	1	-35.93	17	5.1164

No	Nama Transmisi	No Tower	Latitude	Longitude	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	Keterangan MRG	HASIL UKUR PENTANAHAN (Ohm)	Count (-)	Count (+)	Min. kA	Max. kA	Density
35	T Bakaru - Tuppu #35	35	-3.43783	119.56359							0.96	8	1	-45.50	17	2.8780
36	T Bakaru - Tuppu #36	36	-3.43787	119.56194							1.31	7	0	-38.57	0	2.2384
37	T Bakaru - Tuppu #37	37	-3.43774	119.55922							1.39	10	1	-30.90	6	3.5175
38	T Bakaru - Tuppu #38	38	-3.44086	119.55559							0.78	10	2	-36.10	56.5	3.8373
39	T Bakaru - Tuppu #39	39	-3.44302	119.55059							1.07	9	2	-39.67	56.5	3.5175
40	T Bakaru - Tuppu #40	40	-3.44360	119.54744							2.1	2	2	-24.00	56.5	1.2791
41	T Bakaru - Tuppu #41	41	-3.44718	119.54691							0.68	1	1	-22.00	107	0.6396
42	T Bakaru - Tuppu #42	42	-3.44997	119.54566							0.76	1	0	-22.00	0	0.3198
43	T Bakaru - Tuppu #43	43	-3.45270	119.54437							0.47	1	1	-22.00	11	0.6396
44	T Bakaru - Tuppu #44	44	-3.45545	119.54285							0.78	1	1	-22.00	11	0.6396
45	T Bakaru - Tuppu #45	45	-3.45783	119.54168							0.94	2	1	-44.50	11	0.9593
46	T Bakaru - Tuppu #46	46	-3.45936	119.54073							1.43	1	1	-9.00	11	0.6396
47	T Bakaru - Tuppu #47	47	-3.46132	119.54000							1.35	1	1	-9.00	11	0.6396
48	T Bakaru - Tuppu #48	48	-3.46317	119.53921							1.47	1	1	-9.00	11	0.6396
49	T Bakaru - Tuppu #49	49	-3.46699	119.53769							1.19	2	1	-16.50	11	0.9593
50	T Bakaru - Tuppu #50	50	-3.46842	119.53710							0.87	2	0	-16.50	0	0.6396
51	T Bakaru - Tuppu #51	51	-3.47342	119.53541							1.04	1	0	-10.00	0	0.3198
52	T Bakaru - Tuppu #52	52	-3.47556	119.53520							1.49	1	0	-10.00	0	0.3198
53	T Bakaru - Tuppu #53	53	-3.48009	119.53464							2.27	1	0	-10.00	0	0.3198
54	T Bakaru - Tuppu #54	54	-3.48202	119.53460							1.26	1	0	-10.00	0	0.3198
55	T Bakaru - Tuppu #55	55	-3.48466	119.53451							1.01	2	0	-28.50	0	0.6396
56	T Bakaru - Tuppu #56	56	-3.48883	119.53440							1.83	4	0	-52.00	0	1.2791
57	T Bakaru - Tuppu #57	57	-3.49180	119.53435							1	5	0	-54.20	0	1.5989
58	T Bakaru - Tuppu #58	58	-3.49538	119.53472							0.94	6	0	-40.50	0	1.9187
59	T Bakaru - Tuppu #59	59	-3.50043	119.53545							2.31	7	0	-35.43	0	2.2384
60	T Bakaru - Tuppu #60	60	-3.50361	119.53596							1.88	9	0	-36.33	0	2.8780
61	T Bakaru - Tuppu #61	61	-3.50588	119.53590							2.46	11	0	-30.09	0	3.5175
62	T Bakaru - Tuppu #62	62	-3.50898	119.53581							1.14	14	0	-29.64	0	4.4769
63	T Bakaru - Tuppu #63	63	-3.51133	119.53580							1.42	16	0	-26.25	0	5.1164
64	T Bakaru - Tuppu #64	64	-3.51480	119.53514							2.21	16	0	-32.94	0	5.1164
65	T Bakaru - Tuppu #65	65	-3.51774	119.53459							1.92	16	0	-32.25	0	5.1164
66	T Tuppu- Pinrang #66	66	-3.52104	119.53405							1.09	13	0	-28.46	0	4.1571
67	T Tuppu- Pinrang #67	67	-3.52362	119.53603							0.36	15	0	-26.33	0	4.7966
68	T Tuppu- Pinrang #68	68	-3.52632	119.53799							0.57	14	0	-24.57	0	4.4769
69	T Tuppu- Pinrang #69	69	-3.52902	119.54004		ada					0.59	10	1	-23.50	16	3.5175
70	T Tuppu- Pinrang #70	70	-3.53213	119.54089							0.63	8	1	-22.25	16	2.8780
71	T Tuppu- Pinrang #71	71	-3.53564	119.54185							0.76	6	1	-29.00	16	2.2384

No	Nama Transmisi	No Tower	Latitude	Longitude	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	Keterangan MRG	HASIL UKUR PENTANAHAN (Ohm)	Count (-)	Count (+)	Min. kA	Max. kA	Density
72	T Tuppu- Pinrang #72	72	-3.53884	119.54269							0.63	3	2	-38.00	17.5	1.5989
73	T Tuppu- Pinrang #73	73	-3.54189	119.54354							0.7	3	3	-38.00	19	1.9187
74	T Tuppu- Pinrang #74	74	-3.54441	119.54422							0.75	4	3	-33.75	19	2.2384
75	T Tuppu- Pinrang #75	75	-3.54830	119.54529							0.65	3	3	-26.00	27.33	1.9187
76	T Tuppu- Pinrang #76	76	-3.55155	119.54618							0.77	3	3	-26.00	27.33	1.9187
77	T Tuppu- Pinrang #77	77	-3.55520	119.54582							0.54	5	1	-29.80	22	1.9187
78	T Tuppu- Pinrang #78	78	-3.55889	119.54542		ada					0.77	6	0	-26.50	0	1.9187
79	T Tuppu- Pinrang #79	79	-3.56219	119.54510		ada					1.3	9	1	-32.44	41	3.1978
80	T Tuppu- Pinrang #80	80	-3.56574	119.54480							0.78	13	1	-44.69	41	4.4769
81	T Tuppu- Pinrang #81	81	-3.56895	119.54448							0.87	12	2	-41.17	62	4.4769
82	T Tuppu- Pinrang #82	82	-3.57199	119.54419							1.03	16	2	-62.81	70	5.7560
83	T Tuppu- Pinrang #83	83	-3.57510	119.54385							0.88	17	2	-63.59	70	6.0757
84	T Tuppu- Pinrang #84	84	-3.57784	119.54358							0.77	20	2	-49.65	70	7.0351
85	T Tuppu- Pinrang #85	85	-3.58078	119.54330							0.95	17	3	-52.41	62	6.3955
86	T Tuppu- Pinrang #86	86	-3.58393	119.54297							0.67	15	3	-50.93	62	5.7560
87	T Tuppu- Pinrang #87	87	-3.58731	119.54266							1.28	15	2	-50.67	93	5.4362
88	T Tuppu- Pinrang #88	88	-3.59039	119.54233							0.94	12	2	-23.58	93	4.4769
89	T Tuppu- Pinrang #89	89	-3.59352	119.54200							1.41	10	2	-23.60	93	3.8373
90	T Tuppu- Pinrang #90	90	-3.59679	119.54171							0.79	6	2	-28.83	93	2.5582
91	T Tuppu- Pinrang #91	91	-3.59906	119.54162							0.96	8	1	-25.75	140	2.8780
92	T Tuppu- Pinrang #92	92	-3.60309	119.54158							0.83	10	0	-23.90	0	3.1978
93	T Tuppu- Pinrang #93	93	-3.60619	119.54160							1.27	8	1	-21.50	28	2.8780
94	T Tuppu- Pinrang #94	94	-3.60891	119.54156							0.98	6	2	-45.33	34.5	2.5582
95	T Tuppu- Pinrang #95	95	-3.61200	119.54152							1.32	4	2	-62.25	34.5	1.9187
96	T Tuppu- Pinrang #96	96	-3.61504	119.54149							1.23	7	2	-49.14	34.5	2.8780
97	T Tuppu- Pinrang #97	97	-3.61822	119.54149							0.65	8	3	-48.63	25.33	3.5175
98	T Tuppu- Pinrang #98	98	-3.62133	119.54139							0.93	9	3	-46.89	25.33	3.8373
99	T Tuppu- Pinrang #99	99	-3.62450	119.54141							0.45	6	2	-53.67	24	2.5582
100	T Tuppu- Pinrang #100	100	-3.62788	119.54144								3	2	-38.00	68.5	1.5989
101	T Tuppu- Pinrang #101	101	-3.63109	119.54135							0.75	2	2	-40.50	68.5	1.2791
102	T Tuppu- Pinrang #102	102	-3.63444	119.54138							0.49	4	2	-23.25	68.5	1.9187
103	T Tuppu- Pinrang #103	103	-3.63762	119.54139							1.01	6	2	-25.83	68.5	2.5582
104	T Tuppu- Pinrang #104	104	-3.64118	119.54139							0.71	9	1	-24.44	56	3.1978
105	T Tuppu- Pinrang #105	105	-3.64464	119.54144							1.2	13	0	-35.77	0	4.1571
106	T Tuppu- Pinrang #106	106	-3.64804	119.54143							0.52	14	1	-32.36	20	4.7966
107	T Tuppu- Pinrang #107	107	-3.65137	119.54145								10	1	-21.30	20	3.5175
108	T Tuppu- Pinrang #108	108	-3.65471	119.54146								10	1	-23.40	20	3.5175

No	Nama Transmisi	No Tower	Latitude	Longitude	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	Keterangan MRG	HASIL UKUR PENTANAHAN (Ohm)	Count (-)	Count (+)	Min. kA	Max. kA	Density
109	T Tuppu- Pinrang #109	109	-3.65802	119.54149								9	2	-28.00	24	3.5175
110	T Tuppu- Pinrang #110	110	-3.66111	119.54149							1.12	7	1	-26.00	28	2.5582
111	T Tuppu- Pinrang #111	111	-3.66306	119.54473							0.92	8	2	-33.00	23.5	3.1978
112	T Tuppu- Pinrang #112	112	-3.66495	119.54788							1.32	10	2	-26.00	23.5	3.8373
113	T Tuppu- Pinrang #113	113	-3.66686	119.55115							1.35	12	0	-21.33	0	3.8373
114	T Tuppu- Pinrang #114	114	-3.66836	119.55372							0.73	16	0	-34.94	0	5.1164
115	T Tuppu- Pinrang #115	115	-3.67007	119.55707			R,T & R2,T2					13	0	-42.54	0	4.1571
116	T Tuppu- Pinrang #116	116	-3.67206	119.56100			R,T & R2,T2				2.2	11	1	-55.55	39	3.8373
117	T Tuppu- Pinrang #117	117	-3.67330	119.56370							0.52	17	2	-56.00	37.5	6.0757
118	T Tuppu- Pinrang #118	118	-3.67472	119.56651							0.73	20	3	-52.30	37.67	7.3548
119	T Tuppu- Pinrang #119	119	-3.67556	119.56910			R,T & R2,T2				1.84	24	3	-47.96	37.67	8.6339
120	T Tuppu- Pinrang #120	120	-3.67641	119.57178							0.48	25	3	-43.04	37.67	8.9537
121	T Tuppu- Pinrang #121	121	-3.67739	119.57467							0.83	24	1	-37.88	38	7.9944
122	T Tuppu- Pinrang #122	122	-3.67837	119.57770							2.13	23	0	-35.57	0	7.3548
123	T Tuppu- Pinrang #123	123	-3.67935	119.58068							2.17	15	1	-37.93	21	5.1164
124	T Tuppu- Pinrang #124	124	-3.68025	119.58384							1.76	11	2	-31.45	16	4.1571
125	T Tuppu- Pinrang #125	125	-3.68128	119.58681							0.5	13	2	-36.85	16	4.7966
126	T Tuppu- Pinrang #126	126	-3.68200	119.58897							0.81	14	2	-33.00	16	5.1164
127	T Tuppu- Pinrang #127	127	-3.68278	119.59130							0.54	13	2	-32.54	16	4.7966
128	T Tuppu- Pinrang #128	128	-3.68398	119.59374							1.98	12	2	-29.42	16	4.4769
129	T Tuppu- Pinrang #129	129	-3.68534	119.59626							0.79	8	2	-51.63	16	3.1978
130	T Tuppu- Pinrang #130	130	-3.68673	119.59902							0.83	9	0	-59.56	0	2.8780
131	T Tuppu- Pinrang #131	131	-3.68845	119.60211							1.26	8	0	-55.00	0	2.5582
132	T Tuppu- Pinrang #132	132	-3.68952	119.60414							0.72	9	0	-59.22	0	2.8780
133	T Tuppu- Pinrang #133	133	-3.69082	119.60664							0.5	8	0	-33.88	0	2.5582
134	T Tuppu- Pinrang #134	134	-3.69261	119.61012							1.05	5	1	-27.80	12	1.9187
135	T Tuppu- Pinrang #135	135	-3.69487	119.61171								5	1	-39.20	12	1.9187
136	T Tuppu- Pinrang #136	136	-3.69725	119.61327							0.42	4	1	-52.25	12	1.5989
137	T Tuppu- Pinrang #137	137	-3.69973	119.61372							1.74	4	2	-52.25	12	1.9187
138	T Tuppu- Pinrang #138	138	-3.70282	119.61394							1.7	5	2	-49.20	12	2.2384
139	T Tuppu- Pinrang #139	139	-3.70637	119.61420							0.79	13	2	-37.77	12	4.7966
140	T Tuppu- Pinrang #140	140	-3.70966	119.61445							0.97	13	1	-33.54	12	4.4769
141	T Tuppu- Pinrang #141	141	-3.71304	119.61466							1.89	11	0	-32.36	0	3.5175
142	T Tuppu- Pinrang #142	142	-3.71645	119.61491							1.33	11	0	-28.45	0	3.5175
143	T Tuppu- Pinrang #143	143	-3.71975	119.61509								13	1	-22.54	8	4.4769
144	T Tuppu- Pinrang #144	144	-3.72328	119.61545							1.72	12	1	-21.92	8	4.1571
145	T Tuppu- Pinrang #145	145	-3.72673	119.61569							0.79	15	1	-24.13	8	5.1164

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146	T Tuppu- Pinrang #146	146	-3.73011	119.61594							0.86	17	1	-25.06	8	5.7560
147	T Tuppu- Pinrang #147	147	-3.73293	119.61618							0.64	18	1	-27.78	8	6.0757
148	T Tuppu- Pinrang #148	148	-3.73622	119.61722							2.24	18	0	-30.89	0	5.7560
149	T Tuppu- Pinrang #149	149	-3.73931	119.61846							1.27	14	0	-33.50	0	4.4769
150	T Tuppu- Pinrang #150	150	-3.74237	119.61937							1.24	11	1	-35.09	36	3.8373
151	T Tuppu- Pinrang #151	151	-3.74541	119.62053							0.8	7	1	-40.29	36	2.5582
152	T Tuppu- Pinrang #152	152	-3.74840	119.62156							1.42	11	1	-32.00	36	3.8373
153	T Tuppu- Pinrang #153	153	-3.75140	119.62260							1.43	11	1	-27.64	36	3.8373
154	T Tuppu- Pinrang #154	154	-3.75438	119.62364							1.09	13	1	-32.23	36	4.4769
155	T Tuppu- Pinrang #155	155	-3.75733	119.62469							1.52	11	0	-51.00	0	3.5175
156	T Tuppu- Pinrang #156	156	-3.76028	119.62574							1.04	12	1	-48.75	24	4.1571
157	T Tuppu- Pinrang #157	157	-3.76330	119.62669							1.89	13	1	-34.92	24	4.4769
158	T Tuppu- Pinrang #158	158	-3.76632	119.62775							0.56	12	1	-31.42	24	4.1571
159	T Tuppu- Pinrang #159	159	-3.76926	119.62892							1.32	8	1	-26.63	24	2.8780
160	T Tuppu- Pinrang #160	160	-3.77235	119.63002							1.71	6	1	-19.33	24	2.2384
161	T Tuppu- Pinrang #161	161	-3.77533	119.63102							1.73	6	0	-25.33	0	1.9187
162	T Tuppu- Pinrang #162	162	-3.77833	119.63204							2.02	10	0	-20.90	0	3.1978
163	T Tuppu- Pinrang #163	163	-3.78127	119.63310							1.39	8	1	-18.88	12	2.8780
164	T Tuppu- Pinrang #164	164	-3.78429	119.63412							0.97	8	1	-21.25	12	2.8780
165	T Tuppu- Pinrang #165	165	-3.78738	119.63520							0.76	11	3	-19.18	17	4.4769
166	T Tuppu- Pinrang #166	166	-3.79032	119.63637							0.57	11	4	-25.36	14.75	4.7966
167	T Tuppu- Pinrang #167	167	-3.79323	119.63733							0.46	13	4	-29.62	14.75	5.4362
168	T Tuppu- Pinrang #168	168	-3.79462	119.63784							0.36	20	4	-35.90	14.75	7.6746
169	T Pinrang - Pare-Pare #169	169	-3.79627	119.63826							1.48	25	4	-34.16	14.75	9.2735
170	T Pinrang - Pare-Pare #170	170	-3.79936	119.63909							0.72	25	2	-33.56	13	8.6339
171	T Pinrang - Pare-Pare #171	171	-3.80253	119.63992							0.98	32	0	-28.44	0	10.2328
172	T Pinrang - Pare-Pare #172	172	-3.80569	119.64070							0.65	37	2	-28.49	28	12.4712
173	T Pinrang - Pare-Pare #173	173	-3.80881	119.64155							1.2	40	2	-26.65	28	13.4306
174	T Pinrang - Pare-Pare #174	174	-3.81163	119.64229							0.82	38	2	-22.45	28	12.7910
175	T Pinrang - Pare-Pare #175	175	-3.81443	119.64195							0.56	39	3	-20.46	34.67	13.4306
176	T Pinrang - Pare-Pare #176	176	-3.81722	119.64154							0.93	40	4	-19.95	31	14.0701
177	T Pinrang - Pare-Pare #177	177	-3.82005	119.64115							0.35	34	3	-19.12	27.67	11.8317
178	T Pinrang - Pare-Pare #178	178	-3.82332	119.64049							0.57	42	2	-20.52	34	14.0701
179	T Pinrang - Pare-Pare #179	179	-3.82640	119.63979							0.88	41	2	-20.32	34	13.7503
180	T Pinrang - Pare-Pare #180	180	-3.82989	119.63901							0.61	39	3	-18.74	24.67	13.4306
181	T Pinrang - Pare-Pare #181	181	-3.83338	119.63822							1.28	44	3	-20.95	12	15.0294
182	T Pinrang - Pare-Pare #182	182	-3.83679	119.63743							0.49	35	1	-22.80	6	11.5119

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183	T Pinrang - Pare-Pare #183	183	-3.84029	119.63671							0.53	36	3	-21.61	29	12.4712
184	T Pinrang - Pare-Pare #184	184	-3.84358	119.63593							0.47	40	3	-21.30	29	13.7503
185	T Pinrang - Pare-Pare #185	185	-3.84654	119.63529							0.29	38	1	-22.47	24	12.4712
186	T Pinrang - Pare-Pare #186	186	-3.85010	119.63453							0.4	42	1	-28.07	24	13.7503
187	T Pinrang - Pare-Pare #187	187	-3.85301	119.63384							1.01	45	2	-29.73	44.5	15.0294
188	T Pinrang - Pare-Pare #188	188	-3.85651	119.63298					1,866	Counter Poise / Penambahan Rod	0.48	52	2	-29.46	63.5	17.2679
189	T Pinrang - Pare-Pare #189	189	-3.85980	119.63222					1,621	Counter Poise / Penambahan Rod	0.28	53	2	-27.98	63.5	17.5876
190	T Pinrang - Pare-Pare #190	190	-3.86317	119.63139					1,565	Counter Poise / Penambahan Rod	0.3	53	2	-26.83	63.5	17.5876
191	T Pinrang - Pare-Pare #191	191	-3.86641	119.63059					2.288	I-GRASS	0.94	49	1	-24.55	26	15.9888
192	T Pinrang - Pare-Pare #192	192	-3.86991	119.62975							0.89	40	1	-21.45	26	13.1108
193	T Pinrang - Pare-Pare #193	193	-3.87342	119.62891							0.64	35	1	-22.49	26	11.5119
194	T Pinrang - Pare-Pare #194	194	-3.87617	119.62827							0.66	36	1	-24.72	26	11.8317
195	T Pinrang - Pare-Pare #195	195	-3.87949	119.62749							0.52	29	2	-26.79	19	9.9130
196	T Pinrang - Pare-Pare #196	196	-3.88212	119.62684							0.54	30	2	-32.27	19	10.2328
197	T Pinrang - Pare-Pare #197	197	-3.88456	119.62634							0.61	31	1	-38.71	12	10.2328
198	T Pinrang - Pare-Pare #198	198	-3.88787	119.62552							0.49	28	0	-42.04	0	8.9537
199	T Pinrang - Pare-Pare #199	199	-3.89115	119.62472					2.288	I-GRASS	0.79	23	0	-44.96	0	7.3548
200	T Pinrang - Pare-Pare #200	200	-3.89481	119.62390							0.33	22	0	-43.95	0	7.0351
201	T Pinrang - Pare-Pare #201	201	-3.89816	119.62310							0.68	21	0	-45.14	0	6.7153
202	T Pinrang - Pare-Pare #202	202	-3.90146	119.62230							0.42	14	0	-30.86	0	4.4769
203	T Pinrang - Pare-Pare #203	203	-3.90467	119.62157							0.39	13	0	-22.46	0	4.1571
204	T Pinrang - Pare-Pare #204	204	-3.90785	119.62080							0.44	12	0	-24.83	0	3.8373
205	T Pinrang - Pare-Pare #205	205	-3.91107	119.62004							0.84	10	0	-22.10	0	3.1978
206	T Pinrang - Pare-Pare #206	206	-3.91408	119.61933							1.2	12	1	-21.08	17	4.1571
207	T Pinrang - Pare-Pare #207	207	-3.91751	119.61850							1.03	11	3	-26.18	38.67	4.4769
208	T Pinrang - Pare-Pare #208	208	-3.92063	119.61777							1.55	10	3	-32.90	38.67	4.1571
209	T Pinrang - Pare-Pare #209	209	-3.92383	119.61708							0.48	6	2	-39.33	49.5	2.5582
210	T Pinrang - Pare-Pare #210	210	-3.92544	119.61783							0.76	6	2	-38.00	49.5	2.5582
211	T Pinrang - Pare-Pare #211	211	-3.92822	119.61911							1.2	7	2	-36.71	49.5	2.8780
212	T Pinrang - Pare-Pare #212	212	-3.93082	119.62032							1.11	10	4	-37.10	57.25	4.4769
213	T Pinrang - Pare-Pare #213	213	-3.93336	119.62145							1.17	9	5	-39.89	54.6	4.4769
214	T Pinrang - Pare-Pare #214	214	-3.93646	119.62281							1.13	7	5	-26.57	46.4	3.8373
215	T Pinrang - Pare-Pare #215	215	-3.93982	119.62445							0.47	9	5	-30.33	46.4	4.4769
216	T Pinrang - Pare-Pare #216	216	-3.94277	119.62578							0.4	6	5	-27.83	46.4	3.5175
217	T Pinrang - Pare-Pare #217	217	-3.94464	119.62658							0.4	6	4	-39.00	47	3.1978
218	T Pinrang - Pare-Pare #218	218	-3.94714	119.62768							0.72	8	3	-41.25	43	3.5175
219	T Pinrang - Pare-Pare #219	219	-3.95024	119.62916							0.91	7	3	-45.29	43	3.1978

No	Nama Transmisi	No Tower	Latitude	Longitude	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	Keterangan MRG	HASIL UKUR PENTANAHAN (Ohm)	Count (-)	Count (+)	Min. kA	Max. kA	Density
220	T Pinrang - Pare-Pare #220	220	-3.95332	119.63059							0.39	7	1	-45.29	54	2.5582
221	T Pinrang - Pare-Pare #221	221	-3.95650	119.63255							0.78	2	1	-44.50	54	0.9593
222	T Pinrang - Pare-Pare #222	222	-3.95897	119.63310							0.37	2	0	-44.50	0	0.6396
223	T Pinrang - Pare-Pare #223	223	-3.96136	119.63340							0.62	3	0	-24.33	0	0.9593
224	T Pinrang - Pare-Pare #224	224	-3.96393	119.63346							0.63	5	0	-69.60	0	1.5989
225	T Pinrang - Pare-Pare #225	225	-3.96658	119.63647							0.38	5	0	-69.60	0	1.5989
226	T Pinrang - Pare-Pare #226	226	-3.96812	119.63803							0.85	8	0	-57.13	0	2.5582
227	T Pinrang - Pare-Pare #227	227	-3.97089	119.64100							0.59	6	0	-26.33	0	1.9187
228	T Pinrang - Pare-Pare #228	228	-3.97384	119.64269							0.27	9	0	-28.44	0	2.8780
229	T Pinrang - Pare-Pare #229	229	-3.97685	119.64271							0.63	8	0	-29.75	0	2.5582
230	T Pinrang - Pare-Pare #230	230	-3.97953	119.64280							0.96	9	0	-28.44	0	2.8780
231	T Pinrang - Pare-Pare #231	231	-3.98103	119.64232							0.87	8	1	-31.00	72	2.8780
232	T Pinrang - Pare-Pare #232	232	-3.98364	119.64164							1.54	9	1	-29.33	72	3.1978
233	T Pinrang - Pare-Pare #233	233	-3.98570	119.64090							1.53	7	1	-22.86	72	2.5582
234	T Pinrang - Pare-Pare #234	234	-3.98819	119.64017							1.18	8	1	-28.13	72	2.8780
235	T Pinrang - Pare-Pare #235	235	-3.99109	119.63935							1.97	7	2	-23.00	43	2.8780
236	T Pinrang - Pare-Pare #236	236	-3.99388	119.63846							1.63	9	1	-25.44	14	3.1978
237	T Pinrang - Pare-Pare #237	237	-3.99624	119.63775							0.9	10	1	-24.50	14	3.5175
238	T Pinrang - Pare-Pare #238	238	-3.99820	119.63715							0.33	12	1	-29.75	14	4.1571
239	T Pinrang - Pare-Pare #239	239	-3.99995	119.63676							0.34	12	1	-29.75	14	4.1571
240	T Pinrang - Pare-Pare #240	240	-4.00223	119.63724							0.7	12	1	-32.92	14	4.1571
241	T Pinrang - Pare-Pare #241	241	-4.00504	119.63793							0.64	10	1	-34.90	14	3.5175
242	T Pinrang - Pare-Pare #242	242	-4.00820	119.63870							0.57	11	0	-56.91	0	3.5175
243	T Pinrang - Pare-Pare #243	243	-4.01155	119.63824							1.53	12	0	-57.25	0	3.8373
244	T Pinrang - Pare-Pare #244	244	-4.01525	119.63787							0.61	10	0	-57.20	0	3.1978
245	T Pinrang - Pare-Pare #245	245	-4.01871	119.63744							1.61	11	0	-29.00	0	3.5175
246	T Pinrang - Pare-Pare #246	246	-4.02175	119.63703							0.78	11	0	-26.36	0	3.5175

Lampiran 10 Data Eksisting Transmisi Balusu – Pangkep

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
e	T. Balusu - Pangkep	#001	-4.29350	119.63327						1.22	4	3	1	-39.67	26	1.2791
2	T. Balusu - Pangkep	#002	-4.29407	119.63553						0.31	7	5	2	-46.80	32	2.2384
3	T. Balusu - Pangkep	#003	-4.29611	119.63753						1.27	12	8	4	-52.50	39.5	3.8373
4	T. Balusu - Pangkep	#004	-4.29842	119.64073						2	14	9	5	-49.33	41.6	4.4769
5	T. Balusu - Pangkep	#005	-4.29823	119.64310						1.12	13	7	6	-45.14	45.67	4.1571
6	T. Balusu - Pangkep	#006	-4.29813	119.64561						0.28	12	6	6	-50.33	45.67	3.8373
7	T. Balusu - Pangkep	#007	-4.29840	119.64862						0.24	13	7	6	-42.14	46.5	4.1571
8	T. Balusu - Pangkep	341	-4.29927	119.64875						0.3	13	7	6	-42.14	46.5	4.1571
9	T. Balusu - Pangkep	342	-4.30154	119.64880						0.85	14	6	8	-42.50	55.38	4.4769
10	T. Balusu - Pangkep	343	-4.30510	119.64888						0.87	16	10	6	-45.20	59.83	5.1164
11	T. Balusu - Pangkep	344	-4.30730	119.64894						0.34	13	10	3	-41.50	63.33	4.1571
12	T. Balusu - Pangkep	345	-4.31066	119.64855						0.64	19	15	4	-36.07	63.25	6.0757
13	T. Balusu - Pangkep	346	-4.31376	119.64816						0.22	20	16	4	-38.06	63.25	6.3955
14	T. Balusu - Pangkep	347	-4.31697	119.64775						0.37	19	14	5	-31.50	57.6	6.0757
15	T. Balusu - Pangkep	348	-4.31961	119.64784						0.31	16	14	2	-29.79	44	5.1164
16	T. Balusu - Pangkep	349	-4.32275	119.64788						0.83	19	16	3	-31.06	46.33	6.0757
17	T. Balusu - Pangkep	350	-4.32540	119.64792						0.91	20	17	3	-41.06	35.67	6.3955
18	T. Balusu - Pangkep	351	-4.32836	119.64782						1.15	19	16	3	-43.50	35.67	6.0757
19	T. Balusu - Pangkep	352	-4.33141	119.64777						0.87	17	14	3	-42.71	37	5.4362
20	T. Balusu - Pangkep	353	-4.33453	119.64764						0.61	14	12	2	-35.33	38	4.4769
21	T. Balusu - Pangkep	354	-4.33773	119.64852						0.73	13	11	2	-36.64	44.5	4.1571
22	T. Balusu - Pangkep	355	-4.34023	119.64792						0.87	11	10	1	-33.10	34	3.5175
23	T. Balusu - Pangkep	356	-4.34239	119.64742						0.78	10	8	2	-23.25	38	3.1978
24	T. Balusu - Pangkep	357	-4.34478	119.64737						0.54	9	6	3	-18.50	53.67	2.8780
25	T. Balusu - Pangkep	358	-4.34816	119.64725						0.36	11	7	4	-19.71	46.5	3.5175
26	T. Balusu - Pangkep	359	-4.35059	119.64716						1.38	10	7	3	-21.14	33.67	3.1978
27	T. Balusu - Pangkep	360	-4.35397	119.64610						1.19	12	7	5	-40.43	36.4	3.8373
28	T. Balusu - Pangkep	361	-4.35744	119.64497						0.27	14	10	4	-36.90	32.5	4.4769
29	T. Balusu - Pangkep	362	-4.36088	119.64382						0.88	14	8	6	-40.38	32.17	4.4769
30	T. Balusu - Pangkep	363	-4.36438	119.64260						1.14	14	9	5	-38.33	33.6	4.4769
31	T. Balusu - Pangkep	364	-4.36728	119.64173						1.42	15	10	5	-21.30	33.6	4.7966
32	T. Balusu - Pangkep	365	-4.36965	119.64090						2.21	15	9	6	-17.78	34.33	4.7966
33	T. Balusu - Pangkep	366	-4.37302	119.63954						0.5	14	9	5	-25.56	35.2	4.4769

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	T. Balusu - Pangkep	367	-4.37604	119.63833						2.03	15	8	7	-26.13	37.57	4.7966
35	T. Balusu - Pangkep	368	-4.37867	119.63724						0.89	16	10	6	-45.00	45	5.1164
36	T. Balusu - Pangkep	369	-4.38063	119.63644						1.38	18	10	8	-42.50	50.25	5.7560
37	T. Balusu - Pangkep	370	-4.38278	119.63496						0.89	19	11	8	-55.73	50.25	6.0757
38	T. Balusu - Pangkep	371	-4.38422	119.63398						0.41	18	11	7	-57.55	53.29	5.7560
39	T. Balusu - Pangkep	372	-4.38654	119.63238						0.49	17	11	6	-53.27	60	5.4362
40	T. Balusu - Pangkep	373	-4.38837	119.63108						0.42	15	11	4	-79.09	59	4.7966
41	T. Balusu - Pangkep	374	-4.39060	119.62951						0.36	19	13	6	-64.15	58.17	6.0757
42	T. Balusu - Pangkep	375	-4.39402	119.62883						0.45	17	12	5	-60.08	54.4	5.4362
43	T. Balusu - Pangkep	376	-4.39747	119.62815						0.56	13	10	3	-62.90	60	4.1571
44	T. Balusu - Pangkep	377	-4.40032	119.62760						0.62	20	15	5	-61.53	58.6	6.3955
45	T. Balusu - Pangkep	378	-4.40372	119.62692						0.23	18	13	5	-62.77	61.2	5.7560
46	T. Balusu - Pangkep	379	-4.40678	119.62676						0.18	23	15	8	-38.20	52.5	7.3548
47	T. Balusu - Pangkep	380	-4.40830	119.62662						0.06	25	15	10	-42.80	48.5	7.9944
48	T. Balusu - Pangkep	381	-4.41100	119.62644						0.29	25	16	9	-48.56	46.89	7.9944
49	T. Balusu - Pangkep	382	-4.41376	119.62639						0.16	30	21	9	-47.00	46.89	9.5933
50	T. Balusu - Pangkep	383	-4.41701	119.62627						0.16	30	22	8	-54.09	49	9.5933
51	T. Balusu - Pangkep	384	-4.42054	119.62595						0.14	26	23	3	-47.48	41	8.3142
52	T. Balusu - Pangkep	385	-4.42396	119.62577						0.3	20	17	3	-52.35	38.67	6.3955
53	T. Balusu - Pangkep	386	-4.42737	119.62558						0.17	18	16	2	-45.31	39.5	5.7560
54	T. Balusu - Pangkep	387	-4.43064	119.62541						0.04	12	9	3	-45.44	33.67	3.8373
55	T. Balusu - Pangkep	388	-4.43422	119.62537						0.1	15	12	3	-41.33	33.67	4.7966
56	T. Balusu - Pangkep	389	-4.43785	119.62532						1.14	10	9	1	-41.33	42	3.1978
57	T. Balusu - Pangkep	390	-4.44130	119.62533						0.38	8	8	0	-40.88	0	2.5582
58	T. Balusu - Pangkep	391	-4.44537	119.62528						0.67	9	9	0	-44.33	0	2.8780
59	T. Balusu - Pangkep	392	-4.44851	119.62484						0.55	9	8	1	-47.63	40	2.8780
60	T. Balusu - Pangkep	393	-4.45168	119.62441						0.32	9	8	1	-48.00	40	2.8780
61	T. Balusu - Pangkep	394	-4.45390	119.62411						0.73	9	7	2	-50.14	36.5	2.8780
62	T. Balusu - Pangkep	395	-4.45692	119.62370						0.46	12	9	3	-55.00	39.33	3.8373
63	T. Balusu - Pangkep	396	-4.46073	119.62328						0.67	7	4	3	-44.00	39.33	2.2384
64	T. Balusu - Pangkep	397	-4.46376	119.62277						0.34	8	6	2	-69.83	39	2.5582
65	T. Balusu - Pangkep	398	-4.46614	119.62172						0.62	9	6	3	-69.17	33.67	2.8780
66	T. Balusu - Pangkep	399	-4.46915	119.62034						0.23	9	7	2	-75.71	39	2.8780
67	T. Balusu - Pangkep	400	-4.47166	119.61917						0.12	8	7	1	-116.29	33	2.5582
68	T. Balusu - Pangkep	401	-4.47454	119.61785						0.97	8	6	2	-115.83	34.5	2.5582
69	T. Balusu - Pangkep	402	-4.47796	119.61629						0.46	11	5	6	-77.40	46	3.5175

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	T. Balusu - Pangkep	403	-4.48162	119.61494						0.53	9	4	5	-37.00	48.6	2.8780
71	T. Balusu - Pangkep	404	-4.48491	119.61374						0.51	9	4	5	-36.00	57.8	2.8780
72	T. Balusu - Pangkep	405	-4.48811	119.61251						0.88	9	3	6	-33.00	65.33	2.8780
73	T. Balusu - Pangkep	406	-4.49136	119.61135						0.5	10	5	5	-62.00	67.6	3.1978
74	T. Balusu - Pangkep	407	-4.49462	119.61011						0.63	10	5	5	-64.20	67.6	3.1978
75	T. Balusu - Pangkep	408	-4.49787	119.60891						0.31	13	8	5	-60.63	67.6	4.1571
76	T. Balusu - Pangkep	409	-4.50074	119.60776						0.59	13	9	4	-55.67	67.75	4.1571
77	T. Balusu - Pangkep	410	-4.50379	119.60669						0.2	14	10	4	-48.20	56	4.4769
78	T. Balusu - Pangkep	411	-4.50653	119.60593						0.38	9	7	2	-35.14	60.5	2.8780
79	T. Balusu - Pangkep	412	-4.50970	119.60507						0.69	16	12	4	-26.17	67.75	5.1164
80	T. Balusu - Pangkep	413	-4.51302	119.60414						0.97	15	11	4	-27.27	67.75	4.7966
81	T. Balusu - Pangkep	414	-4.51634	119.60320						0.74	12	8	4	-28.88	67.75	3.8373
82	T. Balusu - Pangkep	415	-4.51966	119.60228						0.3	7	5	2	-33.20	75	2.2384
83	T. Balusu - Pangkep	416	-4.52223	119.60282						0.73	5	3	2	-14.33	67	1.5989
84	T. Balusu - Pangkep	417	-4.52496	119.60340						0.36	4	3	1	-14.33	71	1.2791
85	T. Balusu - Pangkep	418	-4.52872	119.60419						1.27	2	1	1	-9.00	71	0.6396
86	T. Balusu - Pangkep	419	-4.53154	119.60473						0.59	4	3	1	-22.33	71	1.2791
87	T. Balusu - Pangkep	420	-4.53457	119.60534						0.83	2	1	1	-22.00	23	0.6396
88	T. Balusu - Pangkep	421	-4.53809	119.60608						6.41	3	2	1	-39.00	23	0.9593
89	T. Balusu - Pangkep	422	-4.54251	119.60696						0.04	3	2	1	-39.00	23	0.9593
90	T. Balusu - Pangkep	423	-4.54418	119.60735						0.93	3	2	1	-39.00	23	0.9593
91	T. Balusu - Pangkep	424	-4.54831	119.60725						0.04	0	0	0	0.00	0	0.0000
92	T. Balusu - Pangkep	425	-4.55288	119.60715						4.19	6	5	1	-39.40	61	1.9187
93	T. Balusu - Pangkep	426	-4.55639	119.60703						0.03	8	7	1	-36.14	61	2.5582
94	T. Balusu - Pangkep	427	-4.55876	119.60715						0.05	11	10	1	-45.30	61	3.5175
95	T. Balusu - Pangkep	428	-4.56108	119.60714						0.03	10	9	1	-45.44	61	3.1978
96	T. Balusu - Pangkep	429	-4.56362	119.60714						0.03	9	7	2	-47.00	59	2.8780
97	T. Balusu - Pangkep	430	-4.56756	119.60695						0	4	3	1	-44.67	57	1.2791
98	T. Balusu - Pangkep	431	-4.56873	119.60702						1	4	3	1	-44.67	57	1.2791
99	T. Balusu - Pangkep	432	-4.57181	119.60707						0.31	2	1	1	-74.00	57	0.6396
100	T. Balusu - Pangkep	433	-4.57565	119.60706						0.53	1	0	1	0.00	57	0.3198
101	T. Balusu - Pangkep	434	-4.57858	119.60645							1	0	1	0.00	21	0.3198
102	T. Balusu - Pangkep	435	-4.58210	119.60571							2	1	1	-24.00	21	0.6396
103	T. Balusu - Pangkep	436	-4.58562	119.60507							2	1	1	-24.00	21	0.6396
104	T. Balusu - Pangkep	437	-4.58904	119.60442							3	2	1	-16.50	21	0.9593
105	T. Balusu - Pangkep	438	-4.59238	119.60362							4	3	1	-14.00	21	1.2791

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	T. Balusu - Pangkep	439	-4.59546	119.60303							4	4	0	-22.25	0	1.2791
107	T. Balusu - Pangkep	440	-4.59898	119.60283							7	7	0	-32.14	0	2.2384
108	T. Balusu - Pangkep	441	-4.60252	119.60244							6	6	0	-35.17	0	1.9187
109	T. Balusu - Pangkep	442	-4.60610	119.60217							9	9	0	-41.00	0	2.8780
110	T. Balusu - Pangkep	443	-4.60964	119.60191							12	12	0	-41.17	0	3.8373
111	T. Balusu - Pangkep	444	-4.61285	119.60164							9	9	0	-35.22	0	2.8780
112	T. Balusu - Pangkep	445	-4.61610	119.60136							8	8	0	-38.88	0	2.5582
113	T. Balusu - Pangkep	446	-4.61962	119.60103							10	9	1	-45.11	4	3.1978
114	T. Balusu - Pangkep	447	-4.62321	119.60080							8	7	1	-44.29	4	2.5582
115	T. Balusu - Pangkep	448	-4.62644	119.60058							9	7	2	-46.71	17	2.8780
116	T. Balusu - Pangkep	449	-4.63005	119.60019							11	9	2	-54.89	17	3.5175
117	T. Balusu - Pangkep	450	-4.63348	119.59996							7	5	2	-60.00	17	2.2384
118	T. Balusu - Pangkep	451	-4.63668	119.59974							7	5	2	-50.80	17	2.2384
119	T. Balusu - Pangkep	452	-4.64001	119.59927							7	7	0	-42.29	0	2.2384
120	T. Balusu - Pangkep	453	-4.64357	119.59872							4	4	0	-32.25	0	1.2791
121	T. Balusu - Pangkep	454	-4.64718	119.59826							4	4	0	-32.25	0	1.2791
122	T. Balusu - Pangkep	455	-4.65053	119.59828							3	3	0	-37.00	0	0.9593
123	T. Balusu - Pangkep	456	-4.65421	119.59829							1	1	0	-88.00	0	0.3198
124	T. Balusu - Pangkep	457	-4.65794	119.59825							0	0	0	0.00	0	0.0000
125	T. Balusu - Pangkep	458	-4.66122	119.59823							0	0	0	0.00	0	0.0000
126	T. Balusu - Pangkep	459	-4.66468	119.59820							0	0	0	0.00	0	0.0000
127	T. Balusu - Pangkep	460	-4.66796	119.59817							1	1	0	-67.00	0	0.3198
128	T. Balusu - Pangkep	461	-4.67154	119.59815							3	3	0	-40.00	0	0.9593
129	T. Balusu - Pangkep	462	-4.67511	119.59788							3	3	0	-40.00	0	0.9593
130	T. Balusu - Pangkep	463	-4.67868	119.59765							1	1	0	-35.00	0	0.3198
131	T. Balusu - Pangkep	464	-4.68225	119.59737							2	2	0	-39.00	0	0.6396
132	T. Balusu - Pangkep	465	-4.68616	119.59706							3	3	0	-31.00	0	0.9593
133	T. Balusu - Pangkep	466	-4.68929	119.59682							3	3	0	-25.00	0	0.9593
134	T. Balusu - Pangkep	467	-4.69279	119.59653							5	4	1	-23.50	34	1.5989
135	T. Balusu - Pangkep	468	-4.69644	119.59631							6	5	1	-23.80	34	1.9187
136	T. Balusu - Pangkep	469	-4.69902	119.59612							6	5	1	-23.80	34	1.9187
137	T. Balusu - Pangkep	470	-4.70170	119.59593							6	5	1	-27.80	34	1.9187
138	T. Balusu - Pangkep	471	-4.70503	119.59565							6	5	1	-27.80	34	1.9187
139	T. Balusu - Pangkep	472	-4.70800	119.59548							6	6	0	-31.33	0	1.9187
140	T. Balusu - Pangkep	473	-4.71135	119.59522							5	5	0	-33.20	0	1.5989
141	T. Balusu - Pangkep	474	-4.71496	119.59499							5	4	1	-37.25	29	1.5989

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	T. Balusu - Pangkep	475	-4.71823	119.59469							6	5	1	-42.00	29	1.9187
143	T. Balusu - Pangkep	476	-4.72161	119.59453							5	4	1	-44.25	29	1.5989
144	T. Balusu - Pangkep	477	-4.72411	119.59418							5	4	1	-44.25	29	1.5989
145	T. Balusu - Pangkep	478	-4.72760	119.59406							3	2	1	-48.00	29	0.9593
146	T. Balusu - Pangkep	479	-4.73114	119.59400							4	3	1	-36.33	29	1.2791
147	T. Balusu - Pangkep	480	-4.73454	119.59402							2	2	0	-20.50	0	0.6396
148	T. Balusu - Pangkep	481	-4.73768	119.59403							1	1	0	-13.00	0	0.3198
149	T. Balusu - Pangkep	482	-4.74056	119.59401							1	1	0	-13.00	0	0.3198
150	T. Balusu - Pangkep	483	-4.74391	119.59401							1	1	0	-13.00	0	0.3198
151	T. Balusu - Pangkep	484	-4.74720	119.59403							1	1	0	-13.00	0	0.3198
152	T. Balusu - Pangkep	485	-4.75070	119.59401							0	0	0	0.00	0	0.0000
153	T. Balusu - Pangkep	486	-4.75425	119.59395							0	0	0	0.00	0	0.0000
154	T. Balusu - Pangkep	487	-4.75774	119.59396							0	0	0	0.00	0	0.0000
155	T. Balusu - Pangkep	488	-4.76136	119.59399							0	0	0	0.00	0	0.0000
156	T. Balusu - Pangkep	489	-4.76410	119.59395							0	0	0	0.00	0	0.0000
157	T. Balusu - Pangkep	490	-4.76676	119.59399							0	0	0	0.00	0	0.0000
158	T. Balusu - Pangkep	491	-4.77022	119.59396							4	3	1	-19.33	63	1.2791
159	T. Balusu - Pangkep	492	-4.77383	119.59399							5	4	1	-21.50	63	1.5989
160	T. Balusu - Pangkep	493	-4.77729	119.59401							7	6	1	-29.83	63	2.2384
161	T. Balusu - Pangkep	494	-4.78104	119.59398							5	4	1	-33.50	63	1.5989
162	T. Balusu - Pangkep	495	-4.78376	119.59296							4	3	1	-34.67	63	1.2791
163	T. Balusu - Pangkep	496	-4.78693	119.59187							0	0	0	0.00	0	0.0000
164	T. Balusu - Pangkep	497	-4.79038	119.59061							0	0	0	0.00	0	0.0000
165	T. Balusu - Pangkep	498	-4.79354	119.58944							1	1	0	-26.00	0	0.3198
166	T. Balusu - Pangkep	499	-4.79665	119.58826							0	0	0	0.00	0	0.0000
167	T. Balusu - Pangkep	500	-4.79997	119.58832							0	0	0	0.00	0	0.0000
168	T. Balusu - Pangkep	501	-4.80127	119.58822							1	1	0	-104.00	0	0.3198

Lampiran 11 Data Eksisting Transmisi Bulukumba - Bone

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Bulukumba-Tanete	1									0	0	0	0.00	0	0.0000
2	SUTT 150 kV Bulukumba-Tanete	2									0	0	0	0.00	0	0.0000
3	SUTT 150 kV Bulukumba-Tanete	3									0	0	0	0.00	0	0.0000
4	SUTT 150 kV Bulukumba-Tanete	4									0	0	0	0.00	0	0.0000
5	SUTT 150 kV Bulukumba-Tanete	5									0	0	0	0.00	0	0.0000
6	SUTT 150 kV Bulukumba-Tanete	6									0	0	0	0.00	0	0.0000
7	SUTT 150 kV Bulukumba-Tanete	7									0	0	0	0.00	0	0.0000
8	SUTT 150 kV Bulukumba-Tanete	8									0	0	0	0.00	0	0.0000
9	SUTT 150 kV Bulukumba-Tanete	9									0	0	0	0.00	0	0.0000
10	SUTT 150 kV Bulukumba-Tanete	10									0	0	0	0.00	0	0.0000
11	SUTT 150 kV Bulukumba-Tanete	11									0	0	0	0.00	0	0.0000
12	SUTT 150 kV Bulukumba-Tanete	12									0	0	0	0.00	0	0.0000
13	SUTT 150 kV Bulukumba-Tanete	13									0	0	0	0.00	0	0.0000
14	SUTT 150 kV Bulukumba-Tanete	14									0	0	0	0.00	0	0.0000
15	SUTT 150 kV Bulukumba-Tanete	15									1	1	0	-26.00	0	0.3198
16	SUTT 150 kV Bulukumba-Tanete	16									1	1	0	-26.00	0	0.3198
17	SUTT 150 kV Bulukumba-Tanete	17									1	1	0	-26.00	0	0.3198
18	SUTT 150 kV Bulukumba-Tanete	18									1	1	0	-26.00	0	0.3198
19	SUTT 150 kV Bulukumba-Tanete	19									1	1	0	-26.00	0	0.3198
20	SUTT 150 kV Bulukumba-Tanete	20									1	1	0	-26.00	0	0.3198
21	SUTT 150 kV Bulukumba-Tanete	21									1	0	1	0.00	26	0.3198
22	SUTT 150 kV Bulukumba-Tanete	22									2	0	2	0.00	26.5	0.6396
23	SUTT 150 kV Bulukumba-Tanete	23									3	1	2	-52.00	26.5	0.9593
24	SUTT 150 kV Bulukumba-Tanete	24									3	1	2	-52.00	26.5	0.9593
25	SUTT 150 kV Bulukumba-Tanete	25									3	1	2	-52.00	26.5	0.9593
26	SUTT 150 kV Bulukumba-Tanete	26									3	1	2	-52.00	26.5	0.9593
27	SUTT 150 kV Bulukumba-Tanete	27									1	1	0	-52.00	0	0.3198
28	SUTT 150 kV Bulukumba-Tanete	28									0	0	0	0.00	0	0.0000
29	SUTT 150 kV Bulukumba-Tanete	29									1	1	0	-71.00	0	0.3198
30	SUTT 150 kV Bulukumba-Tanete	30									1	1	0	-71.00	0	0.3198
31	SUTT 150 kV Bulukumba-Tanete	31									1	1	0	-71.00	0	0.3198
32	SUTT 150 kV Bulukumba-Tanete	32								0.32471103	1	1	0	-71.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	SUTT 150 kV Bulukumba-Tanete	33								0.378563647	1	1	0	-71.00	0	0.3198
34	SUTT 150 kV Bulukumba-Tanete	34								0.306178892	1	1	0	-71.00	0	0.3198
35	SUTT 150 kV Bulukumba-Tanete	35								0.325182379	0	0	0	0.00	0	0.0000
36	SUTT 150 kV Bulukumba-Tanete	36								0.408712478	0	0	0	0.00	0	0.0000
37	SUTT 150 kV Bulukumba-Tanete	37								0.296255406	0	0	0	0.00	0	0.0000
38	SUTT 150 kV Bulukumba-Tanete	38								0.334325182	0	0	0	0.00	0	0.0000
39	SUTT 150 kV Bulukumba-Tanete	39								0.367964299	0	0	0	0.00	0	0.0000
40	SUTT 150 kV Bulukumba-Tanete	40								0.364549499	0	0	0	0.00	0	0.0000
41	SUTT 150 kV Bulukumba-Tanete	41								0.119895743	0	0	0	0.00	0	0.0000
42	SUTT 150 kV Bulukumba-Tanete	42								0.375346075	0	0	0	0.00	0	0.0000
43	SUTT 150 kV Bulukumba-Tanete	43								0.386572368	0	0	0	0.00	0	0.0000
44	SUTT 150 kV Bulukumba-Tanete	44								0.335997184	0	0	0	0.00	0	0.0000
45	SUTT 150 kV Bulukumba-Tanete	45								0.271673261	1	1	0	-53.00	0	0.3198
46	SUTT 150 kV Bulukumba-Tanete	46								0.350887698	2	1	1	-53.00	23	0.6396
47	SUTT 150 kV Bulukumba-Tanete	47								0.357948044	2	1	1	-53.00	23	0.6396
48	SUTT 150 kV Bulukumba-Tanete	48								0.37517951	2	1	1	-53.00	23	0.6396
49	SUTT 150 kV Bulukumba-Tanete	49								0.386065725	1	1	0	-53.00	0	0.3198
50	SUTT 150 kV Bulukumba-Tanete	50								0.449304482	1	1	0	-53.00	0	0.3198
51	SUTT 150 kV Bulukumba-Tanete	51								0.419778369	0	0	0	0.00	0	0.0000
52	SUTT 150 kV Bulukumba-Tanete	52								0.366573816	0	0	0	0.00	0	0.0000
53	SUTT 150 kV Bulukumba-Tanete	53								0.367283391	1	1	0	-42.00	0	0.3198
54	SUTT 150 kV Bulukumba-Tanete	54								0.467862555	1	1	0	-42.00	0	0.3198
55	SUTT 150 kV Bulukumba-Tanete	55								0.883854878	2	1	1	-42.00	27	0.6396
56	SUTT 150 kV Bulukumba-Tanete	56								0.492377345	3	2	1	-31.00	27	0.9593
57	SUTT 150 kV Bulukumba-Tanete	57								0.428365444	3	1	2	-20.00	50.5	0.9593
58	SUTT 150 kV Bulukumba-Tanete	58								0.359599054	4	2	2	-18.50	50.5	1.2791
59	SUTT 150 kV Bulukumba-Tanete	59								0.539632178	4	2	2	-18.50	50.5	1.2791
60	SUTT 150 kV Bulukumba-Tanete	60								0.578136726	4	3	1	-25.33	74	1.2791
61	SUTT 150 kV Bulukumba-Tanete	61								0.385807515	3	3	0	-25.33	0	0.9593
62	SUTT 150 kV Bulukumba-Tanete	62								0.624265556	2	2	0	-28.00	0	0.6396
63	SUTT 150 kV Bulukumba-Tanete	63								0.500669344	1	1	0	-39.00	0	0.3198
64	SUTT 150 kV Bulukumba-Tanete	64								0.435795413	1	1	0	-39.00	0	0.3198
65	SUTT 150 kV Bulukumba-Tanete	65								0.46352517	1	1	0	-39.00	0	0.3198
66	SUTT 150 kV Bulukumba-Tanete	66								0.304021811	0	0	0	0.00	0	0.0000
67	SUTT 150 kV Bulukumba-Tanete	67								0.403729357	0	0	0	0.00	0	0.0000
68	SUTT 150 kV Bulukumba-Tanete	68								0.448797351	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
69	SUTT 150 kV Bulukumba-Tanete	69								0.393233708	0	0	0	0.00	0	0.0000
70	SUTT 150 kV Bulukumba-Tanete	70								1.127377459	1	1	0	-59.00	0	0.3198
71	SUTT 150 kV Bulukumba-Tanete	71								0.370622068	1	1	0	-59.00	0	0.3198
72	SUTT 150 kV Bulukumba-Tanete	72								0.345468851	1	1	0	-59.00	0	0.3198
73	SUTT 150 kV Bulukumba-Tanete	73								0.318710288	2	2	0	-41.50	0	0.6396
74	SUTT 150 kV Bulukumba-Tanete	74								0.579524127	2	2	0	-41.50	0	0.6396
75	SUTT 150 kV Bulukumba-Tanete	75								0.70140799	2	2	0	-41.50	0	0.6396
76	SUTT 150 kV Bulukumba-Tanete	76								0.439870819	3	3	0	-40.33	0	0.9593
77	SUTT 150 kV Bulukumba-Tanete	77								0.489476908	3	3	0	-40.33	0	0.9593
78	SUTT 150 kV Bulukumba-Tanete	78								0.332738154	3	3	0	-46.33	0	0.9593
79	SUTT 150 kV Bulukumba-Tanete	79								0.472915239	3	3	0	-46.33	0	0.9593
80	SUTT 150 kV Bulukumba-Tanete	80								0.526314479	2	2	0	-41.00	0	0.6396
81	SUTT 150 kV Bulukumba-Tanete	81								0.483879781	1	1	0	-42.00	0	0.3198
82	SUTT 150 kV Bulukumba-Tanete	82								0.373067365	1	1	0	-42.00	0	0.3198
83	SUTT 150 kV Bulukumba-Tanete	83								0.270349007	0	0	0	0.00	0	0.0000
84	SUTT 150 kV Bulukumba-Tanete	84								0.267378658	1	1	0	-44.00	0	0.3198
85	SUTT 150 kV Tanete-Sinjai	85								0.315400538	2	2	0	-32.00	0	0.6396
86	SUTT 150 kV Tanete-Sinjai	86								0.560179473	2	2	0	-32.00	0	0.6396
87	SUTT 150 kV Tanete-Sinjai	87								0.257087232	3	3	0	-40.67	0	0.9593
88	SUTT 150 kV Tanete-Sinjai	88								0.343976742	5	5	0	-39.80	0	1.5989
89	SUTT 150 kV Tanete-Sinjai	89								0.626823246	6	5	1	-39.80	47	1.9187
90	SUTT 150 kV Tanete-Sinjai	90								0.556475574	5	4	1	-44.50	47	1.5989
91	SUTT 150 kV Tanete-Sinjai	91								0.549293989	5	4	1	-44.50	47	1.5989
92	SUTT 150 kV Tanete-Sinjai	92								0.411902848	3	2	1	-38.50	47	0.9593
93	SUTT 150 kV Tanete-Sinjai	93								1.111680164	4	2	2	-40.00	46.5	1.2791
94	SUTT 150 kV Tanete-Sinjai	94								0.48	2	1	1	-40.00	46	0.6396
95	SUTT 150 kV Tanete-Sinjai	95								0.797714656	4	2	2	-42.50	63	1.2791
96	SUTT 150 kV Tanete-Sinjai	96									4	2	2	-42.50	63	1.2791
97	SUTT 150 kV Tanete-Sinjai	97									3	2	1	-42.50	46	0.9593
98	SUTT 150 kV Tanete-Sinjai	98									3	1	2	-45.00	55	0.9593
99	SUTT 150 kV Tanete-Sinjai	99									2	1	1	-45.00	64	0.6396
100	SUTT 150 kV Tanete-Sinjai	100								0.48	2	1	1	-45.00	64	0.6396
101	SUTT 150 kV Tanete-Sinjai	101								0.48	1	0	1	0.00	64	0.3198
102	SUTT 150 kV Tanete-Sinjai	102								0.48	0	0	0	0.00	0	0.0000
103	SUTT 150 kV Tanete-Sinjai	103								0.48	1	1	0	-37.00	0	0.3198
104	SUTT 150 kV Tanete-Sinjai	104								0.48	1	1	0	-37.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
105	SUTT 150 kV Tanete-Sinjai	105								0.48	4	3	1	-46.00	49	1.2791
106	SUTT 150 kV Tanete-Sinjai	106								0.48	7	5	2	-43.80	57.5	2.2384
107	SUTT 150 kV Tanete-Sinjai	107									7	5	2	-43.80	57.5	2.2384
108	SUTT 150 kV Tanete-Sinjai	108									8	5	3	-43.80	58.3333	2.5582
109	SUTT 150 kV Tanete-Sinjai	109									7	4	3	-46.75	58.3333	2.2384
110	SUTT 150 kV Tanete-Sinjai	110									6	3	3	-47.33	58.3333	1.9187
111	SUTT 150 kV Tanete-Sinjai	111									2	1	1	-36.00	66	0.6396
112	SUTT 150 kV Tanete-Sinjai	112									1	0	1	0.00	66	0.3198
113	SUTT 150 kV Tanete-Sinjai	113									1	1	0	-20.00	0	0.3198
114	SUTT 150 kV Tanete-Sinjai	114									2	2	0	-17.50	0	0.6396
115	SUTT 150 kV Tanete-Sinjai	115									2	2	0	-17.50	0	0.6396
116	SUTT 150 kV Tanete-Sinjai	116									2	2	0	-16.50	0	0.6396
117	SUTT 150 kV Tanete-Sinjai	117									2	2	0	-21.00	0	0.6396
118	SUTT 150 kV Tanete-Sinjai	118									3	3	0	-23.67	0	0.9593
119	SUTT 150 kV Tanete-Sinjai	119									3	3	0	-23.67	0	0.9593
120	SUTT 150 kV Tanete-Sinjai	120									4	4	0	-28.00	0	1.2791
121	SUTT 150 kV Tanete-Sinjai	121									2	2	0	-28.00	0	0.6396
122	SUTT 150 kV Tanete-Sinjai	122									2	2	0	-28.00	0	0.6396
123	SUTT 150 kV Tanete-Sinjai	123								0.48	3	3	0	-28.00	0	0.9593
124	SUTT 150 kV Tanete-Sinjai	124								0.48	2	2	0	-34.50	0	0.6396
125	SUTT 150 kV Tanete-Sinjai	125								0.48	0	0	0	0.00	0	0.0000
126	SUTT 150 kV Tanete-Sinjai	126								0.48	2	2	0	-50.00	0	0.6396
127	SUTT 150 kV Tanete-Sinjai	127								0.48	3	2	1	-50.00	43	0.9593
128	SUTT 150 kV Tanete-Sinjai	128								0.48	4	3	1	-41.67	43	1.2791
129	SUTT 150 kV Tanete-Sinjai	129								0.48	4	3	1	-62.67	43	1.2791
130	SUTT 150 kV Tanete-Sinjai	130									4	3	1	-56.67	43	1.2791
131	SUTT 150 kV Tanete-Sinjai	131								0.48	4	3	1	-56.67	43	1.2791
132	SUTT 150 kV Tanete-Sinjai	132								0.48	3	3	0	-56.67	0	0.9593
133	SUTT 150 kV Tanete-Sinjai	133								0.48	1	1	0	-43.00	0	0.3198
134	SUTT 150 kV Tanete-Sinjai	134								0.48	1	1	0	-43.00	0	0.3198
135	SUTT 150 kV Tanete-Sinjai	135								0.48	1	1	0	-43.00	0	0.3198
136	SUTT 150 kV Tanete-Sinjai	136								0.352941176	0	0	0	0.00	0	0.0000
137	SUTT 150 kV Tanete-Sinjai	137								0.48	2	2	0	-19.00	0	0.6396
138	SUTT 150 kV Tanete-Sinjai	138								0.48	2	2	0	-19.00	0	0.6396
139	SUTT 150 kV Tanete-Sinjai	139								0.48	3	3	0	-26.67	0	0.9593
140	SUTT 150 kV Tanete-Sinjai	140									3	3	0	-26.67	0	0.9593

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
141	SUTT 150 kV Tanete-Sinjai	141									3	3	0	-26.67	0	0.9593
142	SUTT 150 kV Tanete-Sinjai	142									1	1	0	-42.00	0	0.3198
143	SUTT 150 kV Tanete-Sinjai	143									1	1	0	-42.00	0	0.3198
144	SUTT 150 kV Tanete-Sinjai	144									2	2	0	-44.50	0	0.6396
145	SUTT 150 kV Tanete-Sinjai	145									1	1	0	-47.00	0	0.3198
146	SUTT 150 kV Tanete-Sinjai	146									2	2	0	-49.00	0	0.6396
147	SUTT 150 kV Tanete-Sinjai	147								0.48	2	2	0	-49.00	0	0.6396
148	SUTT 150 kV Tanete-Sinjai	148								0.48	1	1	0	-47.00	0	0.3198
149	SUTT 150 kV Tanete-Sinjai	149								0.48	3	3	0	-51.33	0	0.9593
150	SUTT 150 kV Tanete-Sinjai	150								0.48	3	3	0	-51.33	0	0.9593
151	SUTT 150 kV Tanete-Sinjai	151									3	3	0	-51.33	0	0.9593
152	SUTT 150 kV Tanete-Sinjai	152									1	1	0	-41.00	0	0.3198
153	SUTT 150 kV Tanete-Sinjai	153									1	1	0	-41.00	0	0.3198
154	SUTT 150 kV Tanete-Sinjai	154									0	0	0	0.00	0	0.0000
155	SUTT 150 kV Tanete-Sinjai	155								0.48	0	0	0	0.00	0	0.0000
156	SUTT 150 kV Tanete-Sinjai	156								0.48	0	0	0	0.00	0	0.0000
157	SUTT 150 kV Tanete-Sinjai	157								0.48	0	0	0	0.00	0	0.0000
158	SUTT 150 kV Tanete-Sinjai	158								0.48	0	0	0	0.00	0	0.0000
159	SUTT 150 kV Tanete-Sinjai	159								0.48	1	1	0	-11.00	0	0.3198
160	SUTT 150 kV Tanete-Sinjai	160								0.48	1	1	0	-11.00	0	0.3198
161	SUTT 150 kV Tanete-Sinjai	161								0.48	1	1	0	-11.00	0	0.3198
162	SUTT 150 kV Tanete-Sinjai	162								0.48	1	1	0	-11.00	0	0.3198
163	SUTT 150 kV Tanete-Sinjai	163								0.48	2	2	0	-12.50	0	0.6396
164	SUTT 150 kV Tanete-Sinjai	164								0.48	2	2	0	-12.50	0	0.6396
165	SUTT 150 kV Tanete-Sinjai	165								0.48	1	1	0	-14.00	0	0.3198
166	SUTT 150 kV Tanete-Sinjai	166								0.48	1	1	0	-14.00	0	0.3198
167	SUTT 150 kV Tanete-Sinjai	167								0.48	0	0	0	0.00	0	0.0000
168	SUTT 150 kV Tanete-Sinjai	168								0.48	1	1	0	-23.00	0	0.3198
169	SUTT 150 kV Tanete-Sinjai	169								0.48	1	1	0	-23	0	0.319775083
170	SUTT 150 kV Tanete-Sinjai	170								0.48	1	1	0	-23	0	0.319775083
171	SUTT 150 kV Tanete-Sinjai	171								0.48	2	2	0	-20	0	0.639550166
172	SUTT 150 kV Tanete-Sinjai	172								0.48	2	2	0	-20	0	0.639550166
173	SUTT 150 kV Tanete-Sinjai	173								0.48	1	1	0	-17	0	0.319775083
174	SUTT 150 kV Tanete-Sinjai	174								0.48	1	1	0	-17	0	0.319775083
175	SUTT 150 kV Tanete-Sinjai	175								0.48	2	2	0	-32.5	0	0.639550166
176	SUTT 150 kV Tanete-Sinjai	176								0.48	2	2	0	-32.5	0	0.639550166

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
177	SUTT 150 kV Tanete-Sinjai	177								0.48	2	2	0	-32.5	0	0.639550166
178	SUTT 150 kV Tanete-Sinjai	178								0.48	1	1	0	-48	0	0.319775083
179	SUTT 150 kV Tanete-Sinjai	179								0.48	0	0	0	0	0	0
180	SUTT 150 kV Tanete-Sinjai	180								0.48	0	0	0	0	0	0
181	SUTT 150 kV Tanete-Sinjai	181								0.48	0	0	0	0	0	0
182	SUTT 150 kV Tanete-Sinjai	182								0.48	0	0	0	0	0	0
183	SUTT 150 kV Tanete-Sinjai	183								0.48	0	0	0	0	0	0
184	SUTT 150 kV Tanete-Sinjai	184								0.48	1	0	1	0	17	0.319775083
185	SUTT 150 kV Sinjai-Bone	185								36.66166556	2	1	1	-93	17	0.639550166
186	SUTT 150 kV Sinjai-Bone	186								2.217737519	2	1	1	-93	17	0.639550166
187	SUTT 150 kV Sinjai-Bone	187								14.51185488	2	1	1	-93	17	0.639550166
188	SUTT 150 kV Sinjai-Bone	188								8.668700491	2	2	0	-73.5	0	0.639550166
189	SUTT 150 kV Sinjai-Bone	189								15.28066711	1	1	0	-54	0	0.319775083
190	SUTT 150 kV Sinjai-Bone	190								1.249374061	1	1	0	-54	0	0.319775083
191	SUTT 150 kV Sinjai-Bone	191								1.6075	3	3	0	-69	0	0.959325249
192	SUTT 150 kV Sinjai-Bone	192								26.98883568	3	3	0	-69	0	0.959325249
193	SUTT 150 kV Sinjai-Bone	193								30.42543678	4	4	0	-69.5	0	1.279100332
194	SUTT 150 kV Sinjai-Bone	194								33.0454538	3	3	0	-74.6667	0	0.959325249
195	SUTT 150 kV Sinjai-Bone	195								43.82384305	3	3	0	-74.6667	0	0.959325249
196	SUTT 150 kV Sinjai-Bone	196								57.02280549	2	2	0	-52	0	0.639550166
197	SUTT 150 kV Sinjai-Bone	197								52.2040711	1	1	0	-33	0	0.319775083
198	SUTT 150 kV Sinjai-Bone	198								28.7913139	0	0	0	0	0	0
199	SUTT 150 kV Sinjai-Bone	199								6.03123061	0	0	0	0	0	0
200	SUTT 150 kV Sinjai-Bone	200								4.019892396	0	0	0	0	0	0
201	SUTT 150 kV Sinjai-Bone	201								3.721618728	0	0	0	0	0	0
202	SUTT 150 kV Sinjai-Bone	202								16.35524712	0	0	0	0	0	0
203	SUTT 150 kV Sinjai-Bone	203								46.27344416	0	0	0	0	0	0
204	SUTT 150 kV Sinjai-Bone	204								45.08802494	0	0	0	0	0	0
205	SUTT 150 kV Sinjai-Bone	205								13.49060202	0	0	0	0	0	0
206	SUTT 150 kV Sinjai-Bone	206								12.17839242	0	0	0	0	0	0
207	SUTT 150 kV Sinjai-Bone	207								16.3504842	0	0	0	0	0	0
208	SUTT 150 kV Sinjai-Bone	208								14.51663963	0	0	0	0	0	0
209	SUTT 150 kV Sinjai-Bone	209								6.948101702	2	1	1	-16	46	0.639550166
210	SUTT 150 kV Sinjai-Bone	210								8.268735806	4	3	1	-23.3333	46	1.279100332
211	SUTT 150 kV Sinjai-Bone	211								33.70097604	5	4	1	-22	46	1.598875415
212	SUTT 150 kV Sinjai-Bone	212								12.38173092	5	3	2	-20.3333	41	1.598875415

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
213	SUTT 150 kV Sinjai-Bone	213								40.97896971	5	3	2	-20.3333	41	1.598875415
214	SUTT 150 kV Sinjai-Bone	214								5.693729373	7	5	2	-23.6	41	2.238425581
215	SUTT 150 kV Sinjai-Bone	215								6.168174777	5	3	2	-25	48	1.598875415
216	SUTT 150 kV Sinjai-Bone	216								13.40143429	6	4	2	-24.25	48	1.918650498
217	SUTT 150 kV Sinjai-Bone	217								26.61919512	4	3	1	-23.6667	60	1.279100332
218	SUTT 150 kV Sinjai-Bone	218								12.43113988	5	4	1	-29.75	60	1.598875415
219	SUTT 150 kV Sinjai-Bone	219								1.158666776	4	4	0	-35.75	0	1.279100332
220	SUTT 150 kV Sinjai-Bone	220								0.279706204	4	4	0	-33.5	0	1.279100332
221	SUTT 150 kV Sinjai-Bone	221								5.195892522	5	5	0	-38	0	1.598875415
222	SUTT 150 kV Sinjai-Bone	222								0.237346437	5	5	0	-38	0	1.598875415
223	SUTT 150 kV Sinjai-Bone	223								214.3106292	2	2	0	-46.5	0	0.639550166
224	SUTT 150 kV Sinjai-Bone	224								2.601037809	1	1	0	-56	0	0.319775083
225	SUTT 150 kV Sinjai-Bone	225								8.274195546	0	0	0	0	0	0
226	SUTT 150 kV Sinjai-Bone	226								3.551246044	0	0	0	0	0	0
227	SUTT 150 kV Sinjai-Bone	227								1.224153288	0	0	0	0	0	0
228	SUTT 150 kV Sinjai-Bone	228								5.685113341	0	0	0	0	0	0
229	SUTT 150 kV Sinjai-Bone	229								3.834709456	0	0	0	0	0	0
230	SUTT 150 kV Sinjai-Bone	230								2.895122967	1	0	1	0	10	0.319775083
231	SUTT 150 kV Sinjai-Bone	231								10.84299691	7	5	2	-41.6	30	2.238425581
232	SUTT 150 kV Sinjai-Bone	232								2.629538677	6	4	2	-37.75	30	1.918650498
233	SUTT 150 kV Sinjai-Bone	233								2.696420708	7	5	2	-49	30	2.238425581
234	SUTT 150 kV Sinjai-Bone	234								36.68410874	7	5	2	-49	30	2.238425581
235	SUTT 150 kV Sinjai-Bone	235								2.339873651	6	5	1	-49	50	1.918650498
236	SUTT 150 kV Sinjai-Bone	236								16.62416002	3	3	0	-62.3333	0	0.959325249
237	SUTT 150 kV Sinjai-Bone	237								10.71248541	2	1	1	-27	28	0.639550166
238	SUTT 150 kV Sinjai-Bone	238								47.34366843	2	1	1	-27	28	0.639550166
239	SUTT 150 kV Sinjai-Bone	239								235.7498674	5	4	1	-40	28	1.598875415
240	SUTT 150 kV Sinjai-Bone	240								6.513306259	8	7	1	-37.4286	28	2.558200664
241	SUTT 150 kV Sinjai-Bone	241								42.2374815	4	3	1	-27	28	1.279100332
242	SUTT 150 kV Sinjai-Bone	242								25.0374688	3	2	1	-34.5	28	0.959325249
243	SUTT 150 kV Sinjai-Bone	243								59.24947257	6	5	1	-67.2	28	1.918650498
244	SUTT 150 kV Sinjai-Bone	244								42.61538149	4	4	0	-33.75	0	1.279100332
245	SUTT 150 kV Sinjai-Bone	245								0.733713799	4	3	1	-27.3333	41	1.279100332
246	SUTT 150 kV Sinjai-Bone	246								7.036899188	3	2	1	-33	41	0.959325249
247	SUTT 150 kV Sinjai-Bone	247								4.76330597	2	1	1	-11	41	0.639550166
248	SUTT 150 kV Sinjai-Bone	248								3.409977089	2	1	1	-11	41	0.639550166

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
249	SUTT 150 kV Sinjai-Bone	249								6.179916829	4	2	2	-20.5	35	1.279100332
250	SUTT 150 kV Sinjai-Bone	250								12.19997439	2	1	1	-30	29	0.639550166
251	SUTT 150 kV Sinjai-Bone	251								10.27715854	2	1	1	-30	39	0.639550166
252	SUTT 150 kV Sinjai-Bone	252								1.986592301	2	0	2	0	42	0.639550166
253	SUTT 150 kV Sinjai-Bone	253								7.880108438	3	1	2	-16	42	0.959325249
254	SUTT 150 kV Sinjai-Bone	254								6.347069721	4	2	2	-24.5	42	1.279100332
255	SUTT 150 kV Sinjai-Bone	255								1.69221702	4	2	2	-24.5	42	1.279100332
256	SUTT 150 kV Sinjai-Bone	256								4.85008678	4	2	2	-24.5	42	1.279100332
257	SUTT 150 kV Sinjai-Bone	257								21.71812537	3	2	1	-43	45	0.959325249
258	SUTT 150 kV Sinjai-Bone	258								4.577024977	3	2	1	-43	45	0.959325249
259	SUTT 150 kV Sinjai-Bone	259								6.151360381	4	3	1	-45.3333	45	1.279100332
260	SUTT 150 kV Sinjai-Bone	260								197.3124406	5	4	1	-51.5	45	1.598875415
261	SUTT 150 kV Sinjai-Bone	261								120.3748702	9	8	1	-54.875	45	2.877975747
262	SUTT 150 kV Sinjai-Bone	262								2.083418105	9	9	0	-50.1111	0	2.877975747
263	SUTT 150 kV Sinjai-Bone	263								8.043463	11	11	0	-46.7273	0	3.517525913
264	SUTT 150 kV Sinjai-Bone	264									10	10	0	-46.4	0	3.19775083
265	SUTT 150 kV Sinjai-Bone	265								6.803708177	11	11	0	-34	0	3.517525913
266	SUTT 150 kV Sinjai-Bone	266								2.625484286	12	11	1	-35.0909	35	3.837300996
267	SUTT 150 kV Sinjai-Bone	267								1.600418958	12	11	1	-28.3636	35	3.837300996
268	SUTT 150 kV Sinjai-Bone	268								8.64653767	13	12	1	-26.4167	35	4.157076079
269	SUTT 150 kV Sinjai-Bone	269								11.8178239	10	9	1	-36.8889	35	3.19775083
270	SUTT 150 kV Sinjai-Bone	270								81.57290542	7	6	1	-31.8333	35	2.238425581
271	SUTT 150 kV Sinjai-Bone	271								4.748622566	5	4	1	-38	35	1.598875415
272	SUTT 150 kV Sinjai-Bone	272								7.582109579	2	2	0	-41	0	0.639550166
273	SUTT 150 kV Sinjai-Bone	273								1.278750424	1	1	0	-68	0	0.319775083
274	SUTT 150 kV Sinjai-Bone	274								1.684342666	3	3	0	-44.6667	0	0.959325249
275	SUTT 150 kV Sinjai-Bone	275								4.019993781	5	5	0	-43.8	0	1.598875415
276	SUTT 150 kV Sinjai-Bone	276								6.144452038	7	7	0	-39.2857	0	2.238425581
277	SUTT 150 kV Sinjai-Bone	277								6.293672738	7	7	0	-43	0	2.238425581
278	SUTT 150 kV Sinjai-Bone	278								3.055257733	11	10	1	-41.7	112	3.517525913
279	SUTT 150 kV Sinjai-Bone	279								1.669290495	10	9	1	-39.3333	112	3.19775083
280	SUTT 150 kV Sinjai-Bone	280								9.612483745	12	12	0	-55	0	3.837300996
281	SUTT 150 kV Sinjai-Bone	281								2.166195164	13	12	1	-53.0833	23	4.157076079
282	SUTT 150 kV Sinjai-Bone	282								3.262473127	14	12	2	-58.8333	54	4.476851162
283	SUTT 150 kV Sinjai-Bone	283								4.733123433	18	16	2	-58.1875	54	5.755951494
284	SUTT 150 kV Sinjai-Bone	284								0.856244541	15	13	2	-62.1539	54	4.796626245

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
285	SUTT 150 kV Sinjai-Bone	285								0.624965178	11	9	2	-54.3333	54	3.517525913
286	SUTT 150 kV Sinjai-Bone	286								2.732302711	9	8	1	-65	85	2.877975747
287	SUTT 150 kV Sinjai-Bone	287								2.113273023	7	7	0	-54.2857	0	2.238425581
288	SUTT 150 kV Sinjai-Bone	288								132.0905712	8	6	2	-62.8333	47	2.558200664
289	SUTT 150 kV Sinjai-Bone	289								112.6234255	7	5	2	-60.8	47	2.238425581
290	SUTT 150 kV Sinjai-Bone	290								67.49953703	7	5	2	-72.6	47	2.238425581
291	SUTT 150 kV Sinjai-Bone	291								100.8766537	9	7	2	-74.5714	47	2.877975747
292	SUTT 150 kV Sinjai-Bone	292								360.1249566	10	8	2	-72.25	47	3.19775083
293	SUTT 150 kV Sinjai-Bone	293								430.2445313	11	9	2	-69.6667	47	3.517525913
294	SUTT 150 kV Sinjai-Bone	294								185.5325236	9	8	1	-68.375	44	2.877975747
295	SUTT 150 kV Sinjai-Bone	295								215.5	10	10	0	-64	0	3.19775083
296	SUTT 150 kV Sinjai-Bone	296								62.38655462	12	12	0	-50.5	0	3.837300996
297	SUTT 150 kV Sinjai-Bone	297								91.06237149	13	13	0	-54	0	4.157076079
298	SUTT 150 kV Sinjai-Bone	298								113.7365701	13	13	0	-52.4615	0	4.157076079
299	SUTT 150 kV Sinjai-Bone	299								131.3748811	10	10	0	-54.3	0	3.19775083
300	SUTT 150 kV Sinjai-Bone	300								139.7482111	7	7	0	-58.1429	0	2.238425581
301	SUTT 150 kV Sinjai-Bone	301								135.2495379	7	7	0	-61.2857	0	2.238425581
302	SUTT 150 kV Sinjai-Bone	302								357.3080248	7	6	1	-40.3333	42	2.238425581
303	SUTT 150 kV Sinjai-Bone	303								222.4373069	11	10	1	-49.4	42	3.517525913
304	SUTT 150 kV Sinjai-Bone	304								96.10053326	13	12	1	-46.0833	42	4.157076079
305	SUTT 150 kV Sinjai-Bone	305								99.91982757	13	12	1	-53.25	42	4.157076079
306	SUTT 150 kV Sinjai-Bone	306								59.01475975	11	11	0	-46.8182	0	3.517525913
307	SUTT 150 kV Sinjai-Bone	307								368.3749576	10	10	0	-49.3	0	3.19775083
308	SUTT 150 kV Sinjai-Bone	308								178.5963433	11	11	0	-49.1818	0	3.517525913
309	SUTT 150 kV Sinjai-Bone	309								78.80646083	10	9	1	-48.1111	43	3.19775083
310	SUTT 150 kV Sinjai-Bone	310								169.1215817	10	9	1	-56.4444	43	3.19775083
311	SUTT 150 kV Sinjai-Bone	311								273.2065274	7	6	1	-60.8333	43	2.238425581
312	SUTT 150 kV Sinjai-Bone	312								180.0337908	5	4	1	-72.5	43	1.598875415
313	SUTT 150 kV Sinjai-Bone	313								358.6167408	7	6	1	-56.6667	43	2.238425581
314	SUTT 150 kV Sinjai-Bone	314								342.4989067	9	7	2	-63.8571	51	2.877975747
315	SUTT 150 kV Sinjai-Bone	315								335.5784679	11	7	4	-61.8571	47.25	3.517525913
316	SUTT 150 kV Sinjai-Bone	316								285.3344331	12	9	3	-55.1111	48.6667	3.837300996
317	SUTT 150 kV Sinjai-Bone	317								254.9988978	11	8	3	-52.25	70.6667	3.517525913
318	SUTT 150 kV Sinjai-Bone	318								127.2358935	9	5	4	-56.2	58.5	2.877975747
319	SUTT 150 kV Sinjai-Bone	319								120.6176065	7	4	3	-65.5	58.3333	2.238425581
320	SUTT 150 kV Sinjai-Bone	320								126.4232512	5	2	3	-31.5	56.6667	1.598875415

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
321	SUTT 150 kV Sinjai-Bone	321								173.0447483	3	0	3	0	56.6667	0.959325249
322	SUTT 150 kV Sinjai-Bone	322								146.1973688	3	0	3	0	40.6667	0.959325249
323	SUTT 150 kV Sinjai-Bone	323								278.7449638	2	0	2	0	50	0.639550166
324	SUTT 150 kV Sinjai-Bone	324								243.998012	2	0	2	0	50	0.639550166
325	SUTT 150 kV Sinjai-Bone	325								89.56027436	1	0	1	0	52	0.319775083
326	SUTT 150 kV Sinjai-Bone	326								67.82830899	1	0	1	0	52	0.319775083
327	SUTT 150 kV Sinjai-Bone	327								118.3585002	0	0	0	0	0	0
328	SUTT 150 kV Sinjai-Bone	328								368.4316671	0	0	0	0	0	0
329	SUTT 150 kV Sinjai-Bone	329								132.8765879	2	2	0	-15.5	0	0.639550166
330	SUTT 150 kV Sinjai-Bone	330								283.5451346	2	2	0	-15.5	0	0.639550166
331	SUTT 150 kV Sinjai-Bone	331								336.3909146	2	2	0	-15.5	0	0.639550166
332	SUTT 150 kV Sinjai-Bone	332								264.2638838	4	4	0	-44.25	0	1.279100332
333	SUTT 150 kV Sinjai-Bone	333								143.271523	3	3	0	-53.3333	0	0.959325249
334	SUTT 150 kV Sinjai-Bone	334								184.8704076	0	0	0	0	0	0
335	SUTT 150 kV Sinjai-Bone	335								166.5637521	0	0	0	0	0	0
336	SUTT 150 kV Sinjai-Bone	336								415.3680964	1	1	0	-54	0	0.319775083
337	SUTT 150 kV Sinjai-Bone	337								191.6440877	3	3	0	-28.6667	0	0.959325249
338	SUTT 150 kV Sinjai-Bone	338								289.7473121	5	5	0	-35.4	0	1.598875415
339	SUTT 150 kV Sinjai-Bone	339								143.5702534	3	3	0	-37.6667	0	0.959325249
340	SUTT 150 kV Sinjai-Bone	340								97.64721526	3	3	0	-37.6667	0	0.959325249
341	SUTT 150 kV Sinjai-Bone	341								207.7071316	3	3	0	-33	0	0.959325249
342	SUTT 150 kV Sinjai-Bone	342								149.4973458	2	2	0	-38.5	0	0.639550166
343	SUTT 150 kV Sinjai-Bone	343								166.9769381	2	2	0	-31.5	0	0.639550166
344	SUTT 150 kV Sinjai-Bone	344								135.2163687	1	1	0	-43	0	0.319775083
345	SUTT 150 kV Sinjai-Bone	345								231.8216992	1	1	0	-43	0	0.319775083
346	SUTT 150 kV Sinjai-Bone	346								161.044093	2	1	1	-43	24	0.639550166
347	SUTT 150 kV Sinjai-Bone	347								206.3570222	2	1	1	-43	24	0.639550166
348	SUTT 150 kV Sinjai-Bone	348								147.3449028	4	3	1	-44.3333	24	1.279100332
349	SUTT 150 kV Sinjai-Bone	349								95.55167662	6	5	1	-56.4	24	1.918650498
350	SUTT 150 kV Sinjai-Bone	350								102.1986202	8	8	0	-53.25	0	2.558200664
351	SUTT 150 kV Sinjai-Bone	351								92.89824696	7	7	0	-59.4286	0	2.238425581
352	SUTT 150 kV Sinjai-Bone	352								119.3542921	6	6	0	-74.3333	0	1.918650498
353	SUTT 150 kV Sinjai-Bone	353								139.8744415	5	5	0	-75.2	0	1.598875415
354	SUTT 150 kV Sinjai-Bone	354								150.581695	7	5	2	-75.2	47	2.238425581
355	SUTT 150 kV Sinjai-Bone	355									6	2	4	-81.5	37	1.918650498
356	SUTT 150 kV Sinjai-Bone	356									5	1	4	-47	37	1.598875415

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
357	SUTT 150 kV Sinjai-Bone	357									4	0	4	0	37	1.279100332
358	SUTT 150 kV Sinjai-Bone	358									2	0	2	0	27	0.639550166
359	SUTT 150 kV Sinjai-Bone	359									2	1	1	-38	41	0.639550166
360	SUTT 150 kV Sinjai-Bone	360									1	1	0	-38	0	0.319775083
361	SUTT 150 kV Sinjai-Bone	361									5	5	0	-41.4	0	1.598875415
362	SUTT 150 kV Sinjai-Bone	362									6	5	1	-41.4	38	1.918650498
363	SUTT 150 kV Sinjai-Bone	363									9	8	1	-46.125	38	2.877975747
364	SUTT 150 kV Sinjai-Bone	364									9	8	1	-50	38	2.877975747
365	SUTT 150 kV Sinjai-Bone	365									7	6	1	-50.5	38	2.238425581
366	SUTT 150 kV Sinjai-Bone	366									6	5	1	-54	38	1.918650498
367	SUTT 150 kV Sinjai-Bone	367									5	4	1	-57.75	38	1.598875415
368	SUTT 150 kV Sinjai-Bone	368									4	4	0	-57.75	0	1.279100332
369	SUTT 150 kV Sinjai-Bone	369									3	3	0	-65	0	0.959325249
370	SUTT 150 kV Sinjai-Bone	370									4	3	1	-65	31	1.279100332
371	SUTT 150 kV Sinjai-Bone	371									4	3	1	-65	31	1.279100332
372	SUTT 150 kV Sinjai-Bone	372									5	4	1	-57.75	31	1.598875415
373	SUTT 150 kV Sinjai-Bone	373									5	4	1	-57.75	31	1.598875415
374	SUTT 150 kV Sinjai-Bone	374									4	3	1	-51	31	1.279100332
375	SUTT 150 kV Sinjai-Bone	375									4	2	2	-57	41.5	1.279100332
376	SUTT 150 kV Sinjai-Bone	376									1	0	1	0	52	0.319775083
377	SUTT 150 kV Sinjai-Bone	377									1	0	1	0	52	0.319775083
378	SUTT 150 kV Sinjai-Bone	378									2	1	1	-13	52	0.639550166
379	SUTT 150 kV Sinjai-Bone	379									2	1	1	-13	52	0.639550166
380	SUTT 150 kV Sinjai-Bone	380									2	1	1	-13	52	0.639550166
381	SUTT 150 kV Sinjai-Bone	381									1	1	0	-13	0	0.319775083
382	SUTT 150 kV Sinjai-Bone	382									1	1	0	-13	0	0.319775083
383	SUTT 150 kV Sinjai-Bone	383									4	2	2	-23	43	1.279100332
384	SUTT 150 kV Sinjai-Bone	384									5	3	2	-22.6667	43	1.598875415
385	SUTT 150 kV Sinjai-Bone	385									5	3	2	-22.6667	43	1.598875415
386	SUTT 150 kV Sinjai-Bone	386									4	2	2	-17.5	43	1.279100332
387	SUTT 150 kV Sinjai-Bone	387									4	2	2	-17.5	43	1.279100332
388	SUTT 150 kV Sinjai-Bone	388									4	3	1	-17.3333	45	1.279100332
389	SUTT 150 kV Sinjai-Bone	389									4	4	0	-20.75	0	1.279100332
390	SUTT 150 kV Sinjai-Bone	390									4	4	0	-28.75	0	1.279100332

Lampiran 12 Data Eksisting Transmisi Jeneponto – Bulukumba

No	Nama Transmisi	No Tower	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Jeneponto-Bantaeng New	1	-	-	-	-		0.47	1	0	1	0.00	48	0.3198
2	SUTT 150 kV Jeneponto-Bantaeng New	2	-	-	-	-		1.42	1	0	1	0.00	48	0.3198
3	SUTT 150 kV Jeneponto-Bantaeng New	3	-	0.88	-	-		1.01	2	0	2	0.00	36	0.6396
4	SUTT 150 kV Jeneponto-Bantaeng New	4	-	-	-	-		1.71	2	0	2	0.00	36	0.6396
5	SUTT 150 kV Jeneponto-Bantaeng New	5	-	-	-	-		1.35	2	0	2	0.00	36	0.6396
6	SUTT 150 kV Jeneponto-Bantaeng New	6	-	-	-	-		1.3	1	0	1	0.00	24	0.3198
7	SUTT 150 kV Jeneponto-Bantaeng New	7	-	-	-	-		0.8	1	0	1	0.00	24	0.3198
8	SUTT 150 kV Jeneponto-Bantaeng New	8	-	-	-	-		0.78	1	0	1	0.00	24	0.3198
9	SUTT 150 kV Jeneponto-Bantaeng New	9	-	-	-	-		1.33	0	0	0	0.00	0	0.0000
10	SUTT 150 kV Jeneponto-Bantaeng New	10	-	1	-	-		1.99	0	0	0	0.00	0	0.0000
11	SUTT 150 kV Jeneponto-Bantaeng New	11	-	-	-	-		2.5	0	0	0	0.00	0	0.0000
12	SUTT 150 kV Jeneponto-Bantaeng New	12	-	1.72	-	-		1.57	0	0	0	0.00	0	0.0000
13	SUTT 150 kV Jeneponto-Bantaeng New	13	-	-	-	-		0.74	0	0	0	0.00	0	0.0000
14	SUTT 150 kV Jeneponto-Bantaeng New	14	-	-	-	-		1.3	0	0	0	0.00	0	0.0000
15	SUTT 150 kV Jeneponto-Bantaeng New	15	-	-	-	-		2.59	0	0	0	0.00	0	0.0000
16	SUTT 150 kV Jeneponto-Bantaeng New	16	-	-	-	-		3.37	0	0	0	0.00	0	0.0000
17	SUTT 150 kV Jeneponto-Bantaeng New	17	-	-	-	-		0.22	0	0	0	0.00	0	0.0000
18	SUTT 150 kV Jeneponto-Bantaeng New	18	-	-	-	-		0.19	0	0	0	0.00	0	0.0000
19	SUTT 150 kV Jeneponto-Bantaeng New	19	-	-	-	-		0.20	0	0	0	0.00	0	0.0000
20	SUTT 150 kV Jeneponto-Bantaeng New	20	-	-	-	-		0.19	0	0	0	0.00	0	0.0000
21	SUTT 150 kV Jeneponto-Bantaeng New	21	-	1.62	-	-		0.23	0	0	0	0.00	0	0.0000
22	SUTT 150 kV Jeneponto-Bantaeng New	22	-	-	-	-		0.25	0	0	0	0.00	0	0.0000
23	SUTT 150 kV Jeneponto-Bantaeng New	23	-	-	-	-		0.28	1	0	1	0.00	38	0.3198
24	SUTT 150 kV Jeneponto-Bantaeng New	24	-	-	-	-		0.29	2	1	1	-77.00	38	0.6396
25	SUTT 150 kV Jeneponto-Bantaeng New	25	-	-	-	-		0.36	3	2	1	-61.50	38	0.9593
26	SUTT 150 kV Jeneponto-Bantaeng New	26	-	-	-	-		0.32	3	2	1	-61.50	38	0.9593
27	SUTT 150 kV Jeneponto-Bantaeng New	27	-	1.46	-	-		0.29	2	1	1	-46.00	38	0.6396
28	SUTT 150 kV Jeneponto-Bantaeng New	28	-	-	-	-		0.29	2	1	1	-46.00	38	0.6396
29	SUTT 150 kV Jeneponto-Bantaeng New	29	-	1.8	-	-		0.32	1	1	0	-46.00	0	0.3198
30	SUTT 150 kV Jeneponto-Bantaeng New	30	-	-	-	-		0.26	0	0	0	0.00	0	0.0000
31	SUTT 150 kV Jeneponto-Bantaeng New	31	-	0.21	-	-		0.26	0	0	0	0.00	0	0.0000
32	SUTT 150 kV Jeneponto-Bantaeng New	32	-	-	-	-		0.18	0	0	0	0.00	0	0.0000
33	SUTT 150 kV Jeneponto-Bantaeng New	33	-	1.62	-	-		0.17	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Jeneponto-Bantaeng New	34	-	0.55	-	-		0.21	0	0	0	0.00	0	0.0000
35	SUTT 150 kV Jeneponto-Bantaeng New	35	-	-	-	-		0.24	0	0	0	0.00	0	0.0000
36	SUTT 150 kV Jeneponto-Bantaeng New	36	-	-	-	-		0.26	0	0	0	0.00	0	0.0000
37	SUTT 150 kV Jeneponto-Bantaeng New	37	-	-	-	-		0.38	1	1	0	-34.00	0	0.3198
38	SUTT 150 kV Jeneponto-Bantaeng New	38	-	-	-	-		0.40	1	1	0	-34.00	0	0.3198
39	SUTT 150 kV Jeneponto-Bantaeng New	39	-	-	-	-		0.32	1	1	0	-34.00	0	0.3198
40	SUTT 150 kV Jeneponto-Bantaeng New	40	-	-	-	-		0.31	1	1	0	-34.00	0	0.3198
41	SUTT 150 kV Jeneponto-Bantaeng New	41	-	2.32	-	-		0.24	1	1	0	-34.00	0	0.3198
42	SUTT 150 kV Jeneponto-Bantaeng New	42	-	-	-	-		0.26	1	1	0	-34.00	0	0.3198
43	SUTT 150 kV Jeneponto-Bantaeng New	43	-	-	-	-		0.51	0	0	0	0.00	0	0.0000
44	SUTT 150 kV Jeneponto-Bantaeng New	44	-	-	-	-		0.52	0	0	0	0.00	0	0.0000
45	SUTT 150 kV Jeneponto-Bantaeng New	45	-	-	-	-		0.61	0	0	0	0.00	0	0.0000
46	SUTT 150 kV Jeneponto-Bantaeng New	46	-	-	-	-		0.63	0	0	0	0.00	0	0.0000
47	SUTT 150 kV Jeneponto-Bantaeng New	47	-	-	-	-		0.94	0	0	0	0.00	0	0.0000
48	SUTT 150 kV Jeneponto-Bantaeng New	48	-	-	-	-		0.60	0	0	0	0.00	0	0.0000
49	SUTT 150 kV Jeneponto-Bantaeng New	49	-	-	-	-		0.83	0	0	0	0.00	0	0.0000
50	SUTT 150 kV Jeneponto-Bantaeng New	50	-	1.88	-	-		0.50	1	1	0	-101.00	0	0.3198
51	SUTT 150 kV Jeneponto-Bantaeng New	51	-	-	-	-		91.20	1	1	0	-101.00	0	0.3198
52	SUTT 150 kV Jeneponto-Bantaeng New	52	-	-	-	-		1.11	2	2	0	-74.50	0	0.6396
53	SUTT 150 kV Jeneponto-Bantaeng New	53	-	1.4	-	-		53.31	2	2	0	-74.50	0	0.6396
54	SUTT 150 kV Jeneponto-Bantaeng New	54	-	-	-	-		0.45	2	2	0	-56.00	0	0.6396
55	SUTT 150 kV Jeneponto-Bantaeng New	55	-	-	-	-		0.89	2	2	0	-56.00	0	0.6396
56	SUTT 150 kV Jeneponto-Bantaeng New	56	-	1.83	-	-		0.57	1	1	0	-48.00	0	0.3198
57	SUTT 150 kV Jeneponto-Bantaeng New	57	-	0.51	-	-		1.55	0	0	0	0.00	0	0.0000
58	SUTT 150 kV Jeneponto-Bantaeng New	58	-	0.67	-	-		0.97	0	0	0	0.00	0	0.0000
59	SUTT 150 kV Jeneponto-Bantaeng New	59	-	-	-	-		0.94	0	0	0	0.00	0	0.0000
60	SUTT 150 kV Jeneponto-Bantaeng New	60	-	-	-	-		1.16	1	1	0	-45.00	0	0.3198
61	SUTT 150 kV Jeneponto-Bantaeng New	61	-	-	-	-		2.43	1	1	0	-45.00	0	0.3198
62	SUTT 150 kV Jeneponto-Bantaeng New	62	-	-	-	-		1.03	3	3	0	-34.33	0	0.9593
63	SUTT 150 kV Jeneponto-Bantaeng New	63	-	-	-	-		0.40	4	3	1	-34.33	21	1.2791
64	SUTT 150 kV Jeneponto-Bantaeng New	64	-	-	-	-		1.81	4	3	1	-34.33	21	1.2791
65	SUTT 150 kV Jeneponto-Bantaeng New	65	-	-	-	-		0.72	4	3	1	-34.33	21	1.2791
66	SUTT 150 kV Jeneponto-Bantaeng New	66	-	-	-	-		1.83	3	2	1	-29.00	21	0.9593
67	SUTT 150 kV Jeneponto-Bantaeng New	67	-	-	-	-		2.6	3	2	1	-29.00	21	0.9593
68	SUTT 150 kV Jeneponto-Bantaeng New	68	-	-	-	-		0.67	0	0	0	0.00	0	0.0000
69	SUTT 150 kV Jeneponto-Bantaeng New	69	-	-	-	-		0.09	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Jeneponto-Bantaeng New	70	-	1.7	-	-		0.09	0	0	0	0.00	0	0.0000
71	SUTT 150 kV Jeneponto-Bantaeng New	70A	-	-	-	-			1	1	0	-46.00	0	0.3198
72	SUTT 150 kV Bantaeng New-Bantaeng Switching	72	-	-	-	-			1	0	-46	0.00	0.319775083	46.0000
73	SUTT 150 kV Bantaeng New-Bantaeng Switching	73	-	-	-	-			1	0	-46	0.00	0.319775083	46.0000
74	SUTT 150 kV Bantaeng New-Bantaeng Switching	74	-	-	-	-			1	0	-46	0.00	0.319775083	46.0000
75	SUTT 150 kV Bantaeng New-Bantaeng Switching	75	-	-	-	-			0	0	0	0.00	0	0.0000
76	SUTT 150 kV Bantaeng New-Bantaeng Switching	76	-	1.56	-	-			0	1	0	44.00	0.319775083	44.0000
77	SUTT 150 kV Bantaeng New-Bantaeng Switching	77	-	-	-	-			0	0	0	0.00	0	0.0000
78	SUTT 150 kV Bantaeng New-Bantaeng Switching	78	-	-	-	-			0	0	0	0.00	0	0.0000
79	SUTT 150 kV Bantaeng New-Bantaeng Switching	79	-	-	-	-		0.45	0	0	0	0.00	0	0.0000
80	SUTT 150 kV Bantaeng New-Bantaeng Switching	80	-	-	-	-		0.48	1	0	-14	0.00	0.319775083	14.0000
81	SUTT 150 kV Bantaeng New-Bantaeng Switching	81	-	-	-	-		0.48	3	0	-33.3333	0.00	0.959325249	33.3333
82	SUTT 150 kV Bantaeng New-Bantaeng Switching	82	-	-	-	-		0.48	3	0	-33.3333	0.00	0.959325249	33.3333
83	SUTT 150 kV Bantaeng New-Bantaeng Switching	83	-	-	-	-		0.48	3	0	-42.6667	0.00	0.959325249	42.6667
84	SUTT 150 kV Bantaeng New-Bantaeng Switching	84	-	-	-	-		0.48	5	0	-43.8	0.00	1.598875415	43.8000
85	SUTT 150 kV Bantaeng New-Bantaeng Switching	85	-	-	-	-		0.48	5	0	-62.4	0.00	1.598875415	62.4000
86	SUTT 150 kV Bantaeng New-Bantaeng Switching	86	-	-	-	-		0.48	3	0	-51.6667	0.00	0.959325249	51.6667
87	SUTT 150 kV Bantaeng New-Bantaeng Switching	87	-	-	-	-		0.48	3	0	-51.6667	0.00	0.959325249	51.6667
88	SUTT 150 kV Bantaeng New-Bantaeng Switching	88	-	-	-	-		0.48	2	0	-64.5	0.00	0.639550166	64.5000
89	SUTT 150 kV Bantaeng New-Bantaeng Switching	89	-	-	-	-		0.48	1	0	-64	0.00	0.319775083	64.0000
90	SUTT 150 kV Bantaeng New-Bantaeng Switching	90	-	-	-	-		0.73	0	0	0	0.00	0	0.0000
91	SUTT 150 kV Bantaeng New-Bantaeng Switching	91	-	-	-	-		0.16	0	0	0	0.00	0	0.0000
92	SUTT 150 kV Bantaeng New-Bantaeng Switching	92	-	1.39	-	-		0.43	0	0	0	0.00	0	0.0000
93	SUTT 150 kV Bantaeng New-Bantaeng Switching	93	-	-	-	-		0.33	0	0	0	0.00	0	0.0000
94	SUTT 150 kV Bantaeng New-Bantaeng Switching	94	-	0.91	-	-		0.50	0	0	0	0.00	0	0.0000
95	SUTT 150 kV Bantaeng New-Bantaeng Switching	95	-	-	-	-			0	0	0	0.00	0	0.0000
96	SUTT 150 kV Bantaeng New-Bantaeng Switching	96	-	-	-	-		0.70	1	0	-21	0.00	0.319775083	21.0000
97	SUTT 150 kV Bantaeng New-Bantaeng Switching	97	-	-	-	-		0.57	2	0	-20.5	0.00	0.639550166	20.5000
98	SUTT 150 kV Bantaeng New-Bantaeng Switching	98	-	1.72	-	-		0.79	1	0	-21	0.00	0.319775083	21.0000
99	SUTT 150 kV Bantaeng New-Bantaeng Switching	99	-	-	-	-		1.03	1	0	-58	0.00	0.319775083	58.0000
100	SUTT 150 kV Bantaeng New-Bantaeng Switching	100	-	-	-	-		0.25	1	0	-58	0.00	0.319775083	58.0000
101	SUTT 150 kV Bantaeng New-Bantaeng Switching	101	-	0.81	-	-		0.25	1	0	-58	0.00	0.319775083	58.0000
102	SUTT 150 kV Bantaeng New-Bantaeng Switching	102	-	-	-	-		0.40	1	0	-58	0.00	0.319775083	58.0000
103	SUTT 150 kV Bantaeng New-Bantaeng Switching	103	-	0.5	-	-		1.08	1	0	-58	0.00	0.319775083	58.0000
104	SUTT 150 kV Bantaeng New-Bantaeng Switching	104	-	1	-	-		0.77	1	0	-58	0.00	0.319775083	58.0000
105	SUTT 150 kV Bantaeng New-Bantaeng Switching	105			-	-			1	0	-58	0.00	0.319775083	58.0000

No	Nama Transmisi	No Tower	Direct Grounding	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	SUTT 150 kV Bantaeng New-Bantaeng Switching	106			-	-		0.55	0	0	0	0.00	0	0.0000
107	SUTT 150 kV Bantaeng New-Bantaeng Switching	107			-	-		0.43	0	0	0	0.00	0	0.0000
108	SUTT 150 kV Bantaeng New-Bantaeng Switching	108			-	-		0.53	0	0	0	0.00	0	0.0000
109	SUTT 150 kV Bantaeng New-Bantaeng Switching	109			-	-		0.89	0	0	0	0.00	0	0.0000
110	SUTT 150 kV Bantaeng New-Bantaeng Switching	110	-		-	-		1.58	0	0	0	0.00	0	0.0000
111	SUTT 150 kV Bantaeng New-Bantaeng Switching	111	-		-	-		0.86	0	0	0	0.00	0	0.0000
112	SUTT 150 kV Bantaeng New-Bantaeng Switching	112	-		-	-		0.95	0	0	0	0.00	0	0.0000
113	SUTT 150 kV Bantaeng New-Bantaeng Switching	113	-		-	-		1.74	0	0	0	0.00	0	0.0000
114	SUTT 150 kV Bantaeng New-Bantaeng Switching	114	-		-	-		0.64	0	0	0	0.00	0	0.0000
115	SUTT 150 kV Bantaeng Switching-Bulukumba	115	-		-	-			0	0	0	0.00	0	0.0000
116	SUTT 150 kV Bantaeng Switching-Bulukumba	116	-		-	-		0.90	1	1	0	-35.00	0	0.3198
117	SUTT 150 kV Bantaeng Switching-Bulukumba	117	-		-	-		0.79	1	1	0	-35.00	0	0.3198
118	SUTT 150 kV Bantaeng Switching-Bulukumba	118	-		-	-		0.27	0	0	0	0.00	0	0.0000
119	SUTT 150 kV Bantaeng Switching-Bulukumba	119	-		-	-		0.55	0	0	0	0.00	0	0.0000
120	SUTT 150 kV Bantaeng Switching-Bulukumba	120	-		-	-		0.69	0	0	0	0.00	0	0.0000
121	SUTT 150 kV Bantaeng Switching-Bulukumba	121	-		-	-		0.63	0	0	0	0.00	0	0.0000
122	SUTT 150 kV Bantaeng Switching-Bulukumba	122	-		-	-		0.43	0	0	0	0.00	0	0.0000
123	SUTT 150 kV Bantaeng Switching-Bulukumba	123	-		-	-		1.56	0	0	0	0.00	0	0.0000
124	SUTT 150 kV Bantaeng Switching-Bulukumba	124	-		-	-		0.53	0	0	0	0.00	0	0.0000
125	SUTT 150 kV Bantaeng Switching-Bulukumba	125	-		-	-		0.71	1	1	0	-66.00	0	0.3198
126	SUTT 150 kV Bantaeng Switching-Bulukumba	126	-		-	-		0.73	1	1	0	-66.00	0	0.3198
127	SUTT 150 kV Bantaeng Switching-Bulukumba	127	-		-	-		0.91	1	1	0	-66.00	0	0.3198
128	SUTT 150 kV Bantaeng Switching-Bulukumba	128	-		-	-		1.07	0	0	0	0.00	0	0.0000
129	SUTT 150 kV Bantaeng Switching-Bulukumba	129	-		-	-		0.38	0	0	0	0.00	0	0.0000
130	SUTT 150 kV Bantaeng Switching-Bulukumba	130	-		-	-		0.45	0	0	0	0.00	0	0.0000
131	SUTT 150 kV Bantaeng Switching-Bulukumba	131	-		-	-		0.63	0	0	0	0.00	0	0.0000
132	SUTT 150 kV Bantaeng Switching-Bulukumba	132	-		-	-		0.65	0	0	0	0.00	0	0.0000
133	SUTT 150 kV Bantaeng Switching-Bulukumba	133	-		-	-		0.70	0	0	0	0.00	0	0.0000
134	SUTT 150 kV Bantaeng Switching-Bulukumba	134	-		-	-		0.78	0	0	0	0.00	0	0.0000
135	SUTT 150 kV Bantaeng Switching-Bulukumba	135	-		-	-		1.79	0	0	0	0.00	0	0.0000
136	SUTT 150 kV Bantaeng Switching-Bulukumba	136	-		-	-		0.45	0	0	0	0.00	0	0.0000

Lampiran 13 Data Eksisting Transmisi Maros – Sungguminasa

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Maros - Daya Baru	1	-4.93238	119.59530							1	1	0	-21.00	0	0.3198
2	SUTT 150 kV Maros - Daya Baru	2	-4.93572	119.59437							1	1	0	-21.00	0	0.3198
3	SUTT 150 kV Maros - Daya Baru	3	-4.93852	119.59411							1	1	0	-21.00	0	0.3198
4	SUTT 150 kV Maros - Daya Baru	4	-4.94151	119.59377							1	1	0	-21.00	0	0.3198
5	SUTT 150 kV Maros - Daya Baru	5	-4.94399	119.59187							1	1	0	-21.00	0	0.3198
6	SUTT 150 kV Maros - Daya Baru	6	-4.94649	119.58987							2	1	1	-21.00	85	0.6396
7	SUTT 150 kV Maros - Daya Baru	7	-4.94909	119.58787							1	0	1	0.00	85	0.3198
8	SUTT 150 kV Maros - Daya Baru	8	-4.95168	119.58585							3	1	2	-100.00	86.5	0.9593
9	SUTT 150 kV Maros - Daya Baru	9	-4.95426	119.58390							3	1	2	-100.00	86.5	0.9593
10	SUTT 150 kV Maros - Daya Baru	10	-4.95678	119.58196							4	2	2	-67.00	86.5	1.2791
11	SUTT 150 kV Maros - Daya Baru	11	-4.95977	119.58090							3	2	1	-67.00	88	0.9593
12	SUTT 150 kV Maros - Daya Baru	12	-4.96295	119.58086							4	2	2	-67.00	120	1.2791
13	SUTT 150 kV Maros - Daya Baru	13	-4.96600	119.58085							3	2	1	-33.00	152	0.9593
14	SUTT 150 kV Maros - Daya Baru	14	-4.96923	119.58086							6	4	2	-46.00	99.5	1.9187
15	SUTT 150 kV Maros - Daya Baru	15	-4.97260	119.58173							8	6	2	-74.33	99.5	2.5582
16	SUTT 150 kV Maros - Daya Baru	16	-4.97601	119.58261							7	5	2	-82.40	99.5	2.2384
17	SUTT 150 kV Maros - Daya Baru	17	-4.97869	119.58335							5	4	1	-52.50	47	1.5989
18	SUTT 150 kV Maros - Daya Baru	18	-4.98203	119.58413							4	3	1	-59.33	47	1.2791
19	SUTT 150 kV Maros - Daya Baru	19	-4.98417	119.58471							6	3	3	-68.00	43.3333	1.9187
20	SUTT 150 kV Maros - Daya Baru	20	-4.98648	119.58528							3	1	2	-66.00	41.5	0.9593
21	SUTT 150 kV Maros - Daya Baru	21	-4.98882	119.58782							2	1	1	-66.00	32	0.6396
22	SUTT 150 kV Maros - Daya Baru	22	-4.99064	119.59001							1	1	0	-66.00	0	0.3198
23	SUTT 150 kV Maros - Daya Baru	23	-4.99281	119.59245							1	1	0	-66.00	0	0.3198
24	SUTT 150 kV Maros - Daya Baru	24	-4.99488	119.59473							2	2	0	-29.50	0	0.6396
25	SUTT 150 kV Maros - Daya Baru	25	-4.99698	119.59712							3	2	1	-29.50	92	0.9593
26	SUTT 150 kV Maros - Daya Baru	26	-4.99917	119.59962							3	2	1	-29.50	92	0.9593
27	SUTT 150 kV Maros - Daya Baru	27	-5.00076	119.60194							4	3	1	-31.00	92	1.2791
28	SUTT 150 kV Maros - Daya Baru	28	-5.00301	119.60399							3	2	1	-32.50	92	0.9593
29	SUTT 150 kV Maros - Daya Baru	29	-5.00619	119.60505							4	3	1	-40.33	92	1.2791
30	SUTT 150 kV Maros - Daya Baru	30	-5.00921	119.60609							5	4	1	-36.00	41	1.5989
31	SUTT 150 kV Maros - Daya Baru	31	-5.01221	119.60715							4	3	1	-36.67	41	1.2791
32	SUTT 150 kV Maros - Daya Baru	32	-5.01513	119.60812							5	4	1	-29.75	41	1.5989
33	SUTT 150 kV Maros - Daya Baru	33	-5.01799	119.60902							5	5	0	-28.80	0	1.5989

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Maros - Daya Baru	34	-5.02081	119.60797							4	4	0	-33.00	0	1.2791
35	SUTT 150 kV Maros - Daya Baru	35	-5.02388	119.60684							4	4	0	-31.75	0	1.2791
36	SUTT 150 kV Maros - Daya Baru	36	-5.02636	119.60562							5	5	0	-27.20	0	1.5989
37	SUTT 150 kV Maros - Daya Baru	37	-5.02977	119.60367							6	6	0	-24.33	0	1.9187
38	SUTT 150 kV Maros - Daya Baru	38	-5.03235	119.60223						0.02	5	5	0	-19.00	0	1.5989
39	SUTT 150 kV Maros - Daya Baru	39	-5.03546	119.60275						0.09	4	4	0	-14.00	0	1.2791
40	SUTT 150 kV Maros - Daya Baru	40	-5.03856	119.60328						0.12	5	4	1	-14.00	66	1.5989
41	SUTT 150 kV Maros - Daya Baru	41	-5.04175	119.60381						0.21	3	2	1	-9.50	66	0.9593
42	SUTT 150 kV Maros - Daya Baru	42	-5.04511	119.60438						0.40	3	2	1	-20.50	66	0.9593
43	SUTT 150 kV Maros - Daya Baru	43	-5.04781	119.60481						0.43	2	1	1	-31.00	66	0.6396
44	SUTT 150 kV Maros - Daya Baru	44	-5.05055	119.60528						0.89	2	1	1	-31.00	66	0.6396
45	SUTT 150 kV Maros - Daya Baru	45	-5.05300	119.60756						0.50	3	2	1	-19.50	66	0.9593
46	SUTT 150 kV Maros - Daya Baru	46	-5.05559	119.61001						0.58	2	2	0	-19.50	0	0.6396
47	SUTT 150 kV Maros - Daya Baru	47	-5.05792	119.61224						0.53	1	1	0	-8.00	0	0.3198
48	SUTT 150 kV Maros - Daya Baru	48	-5.06023	119.61441						0.49	2	2	0	-8.00	0	0.6396
49	SUTT 150 kV Maros - Daya Baru	49	-5.06323	119.61462						0.53	3	3	0	-38.33	0	0.9593
50	SUTT 150 kV Maros - Daya Baru	50	-5.06669	119.61484						0.86	3	3	0	-17.33	0	0.9593
51	SUTT 150 kV Maros - Daya Baru	51	-5.06958	119.61501						0.70	3	3	0	-25.67	0	0.9593
52	SUTT 150 kV Maros - Daya Baru	52	-5.07279	119.61523						0.97	4	4	0	-23.75	0	1.2791
53	SUTT 150 kV Maros - Daya Baru	53	-5.07612	119.61541						0.58	6	6	0	-23.33	0	1.9187
54	SUTT 150 kV Maros - Daya Baru	54	-5.07944	119.61569						1.11	10	10	0	-21.70	0	3.1978
55	SUTT 150 kV Maros - Daya Baru	55	-5.08239	119.61592						0.55	8	8	0	-18.13	0	2.5582
56	SUTT 150 kV Maros - Daya Baru	56	-5.08598	119.61622						0.70	6	6	0	-16.67	0	1.9187
57	SUTT 150 kV Maros - Daya Baru	57	-5.08975	119.61652						0.76	5	5	0	-15.20	0	1.5989
58	SUTT 150 kV Maros - Daya Baru	58	-5.09237	119.61674						0.45	4	4	0	-11.25	0	1.2791
59	SUTT 150 kV Maros - Daya Baru	59	-5.09580	119.61702						1.07	2	2	0	-12.50	0	0.6396
60	SUTT 150 kV Maros - Daya Baru	60	-5.09886	119.61611						0.67	2	2	0	-12.50	0	0.6396
61	SUTT 150 kV Maros - Daya Baru	61	-5.10203	119.61516						0.48	1	1	0	-14.00	0	0.3198
62	SUTT 150 kV Maros - Daya Baru	62	-5.10533	119.61421						0.92	1	1	0	-14.00	0	0.3198
63	SUTT 150 kV Maros - Daya Baru	63	-5.10840	119.61325						0.98	1	1	0	-14.00	0	0.3198
64	SUTT 150 kV Maros - Daya Baru	64	-5.11139	119.61234						0.60	0	0	0	0.00	0	0.0000
65	SUTT 150 kV Maros - Daya Baru	65	-5.11430	119.61150						0.625819284	0	0	0	0.00	0	0.0000
66	SUTT 150 kV Maros - Daya Baru	66	-5.11705	119.61071						0.672011004	2	2	0	-22.00	0	0.6396
67	SUTT 150 kV Maros - Daya Baru	67	-5.12042	119.60972						0.627974531	2	2	0	-22.00	0	0.6396
68	SUTT 150 kV Maros - Daya Baru	68	-5.12281	119.60906						0.397697162	2	2	0	-22.00	0	0.6396
69	SUTT 150 kV Maros - Daya Baru	69	-5.12509	119.60868						0.480341423	1	1	0	-30.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Maros - Daya Baru	70	-5.12807	119.60824						0.43747433	1	1	0	-30.00	0	0.3198
71	SUTT 150 kV Maros - Daya Baru	71	-5.13085	119.60766						0.493410056	1	1	0	-30.00	0	0.3198
72	SUTT 150 kV Maros - Daya Baru	72	-5.13388	119.60703						0.657953114	1	0	1	0.00	21	0.3198
73	SUTT 150 kV Maros - Daya Baru	73	-5.13697	119.60627						0.64242718	1	0	1	0.00	21	0.3198
74	SUTT 150 kV Maros - Daya Baru	74	-5.14010	119.60568						0.702660354	1	0	1	0.00	21	0.3198
75	SUTT 150 kV Maros - Daya Baru	75	-5.14215	119.60519						0.405111204	1	0	1	0.00	21	0.3198
76	SUTT 150 kV Maros - Daya Baru	76	-5.14317	119.60554						0.866829896	2	0	2	0.00	25	0.6396
77	SUTT 150 kV Bolangi - Daya Baru	77	-5.14469	119.60687						0.28	8	8	0	-21.00	0	2.5580
78	SUTT 150 kV Bolangi - Daya Baru	78	-5.14907	119.60778						0.195	7	7	0	-20.14	0	2.2380
79	SUTT 150 kV Bolangi - Daya Baru	79	-5.15084	119.60635						0.16	6	6	0	-19.50	0	1.9190
80	SUTT 150 kV Bolangi - Daya Baru	80	5° 9'13.14"S	119°36'20.55"E						0.11	8	8	0	-19.13	0	2.5580
81	SUTT 150 kV Bolangi - Daya Baru	81	-5.15597	119.60430						0.56	6	6	0	-19.50	0	1.9190
82	SUTT 150 kV Bolangi - Daya Baru	82	-5.15766	119.60323						0.30	5	5	0	-20.40	0	1.5990
83	SUTT 150 kV Bolangi - Daya Baru	83	-5.15998	119.60195						0.62	4	4	0	-20.25	0	1.2790
84	SUTT 150 kV Bolangi - Daya Baru	84	-5.16288	119.60041						0.62	4	4	0	-20.25	0	1.2790
85	SUTT 150 kV Bolangi - Daya Baru	85	-5.16603	119.59908						0.29	6	5	1	-19.00	38	1.9190
86	SUTT 150 kV Bolangi - Daya Baru	86	-5.16877	119.59770						0.22	4	2	2	-11.50	62	1.2790
87	SUTT 150 kV Bolangi - Daya Baru	87	-5.17224	119.59624						0.48	3	1	2	-14.00	62	0.9590
88	SUTT 150 kV Bolangi - Daya Baru	88	-5.17424	119.59521						0.93	3	1	2	-14.00	62	0.9590
89	SUTT 150 kV Bolangi - Daya Baru	89	-5.17701	119.59392						1.28	3	1	2	-14.00	62	0.9590
90	SUTT 150 kV Bolangi - Daya Baru	90	-5.18016	119.59209						0.76	1	0	1	0.00	86	0.3200
91	SUTT 150 kV Bolangi - Daya Baru	91	-5.18282	119.58936						0.28	1	0	1	0.00	86	0.3200
92	SUTT 150 kV Bolangi - Daya Baru	92	-5.18501	119.58698						0.53	3	3	0	-41.33	0	0.9590
93	SUTT 150 kV Bolangi - Daya Baru	93	-5.18737	119.58469						0.22	3	3	0	-41.33	0	0.9590
94	SUTT 150 kV Bolangi - Daya Baru	94	-5.18858	119.58218						0.25	4	3	1	-41.33	37	1.2790
95	SUTT 150 kV Bolangi - Daya Baru	95	-5.18979	119.57974						0.36	7	6	1	-37.17	37	2.2380
96	SUTT 150 kV Bolangi - Daya Baru	96	-5.19181	119.57735						0.39	8	7	1	-33.57	37	2.5580
97	SUTT 150 kV Bolangi - Daya Baru	97	-5.19382	119.57501						0.26	7	7	0	-33.57	0	2.2380
98	SUTT 150 kV Bolangi - Daya Baru	98	-5.19407	119.57180						0.40	7	6	1	-23.33	15	2.2380
99	SUTT 150 kV Bolangi - Daya Baru	99	-5.19454	119.56866						0.26	8	7	1	-28.29	15	2.5580
100	SUTT 150 kV Bolangi - Daya Baru	100	-5.19474	119.56566						0.25	6	5	1	-21.20	15	1.9190
101	SUTT 150 kV Bolangi - Daya Baru	101	-5.19508	119.56278						0.26	4	4	0	-29.75	0	1.2790
102	SUTT 150 kV Bolangi - Daya Baru	102	-5.19550	119.55947						0.37	5	5	0	-29.00	0	1.5990
103	SUTT 150 kV Bolangi - Daya Baru	103	-5.19581	119.55608						0.20	7	7	0	-23.57	0	2.2380
104	SUTT 150 kV Bolangi - Daya Baru	104	-5.19632	119.55262						0.22	9	9	0	-19.78	0	2.8780
105	SUTT 150 kV Bolangi - Daya Baru	105	-5.19667	119.54940						0.16	10	10	0	-19.10	0	3.1980

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	SUTT 150 kV Bolangi - Daya Baru	106	-5.19697	119.54613						0.13	9	9	0	-17.33	0	2.8780
107	SUTT 150 kV Bolangi - Daya Baru	107	-5.19734	119.54268						0.11	6	6	0	-21.00	0	1.9190
108	SUTT 150 kV Bolangi - Daya Baru	108	-5.19775	119.53917							3	3	0	-23.67	0	0.9590
109	SUTT 150 kV Bolangi - Daya Baru	109	-5.19985	119.53660							2	2	0	-29.00	0	0.6400
110	SUTT 150 kV Bolangi - Daya Baru	110	5°12'6.82"S	119°32'2.96"E							2	2	0	-29.00	0	0.6400
111	SUTT 150 kV Bolangi - Daya Baru	111	-5.20356	119.53205							1	1	0	-25.00	0	0.3200
112	SUTT 150 kV Bolangi - Sungguminasa	112 A	-5.20629	119.53060												
113	SUTT 150 kV Bolangi - Sungguminasa	112	-5.20903	119.52836						0.30						
114	SUTT 150 kV Bolangi - Sungguminasa	113	-5.21142	119.52694						0.32	3	3	0	-20.33	0	0.9600
115	SUTT 150 kV Bolangi - Sungguminasa	114	-5.21400	119.52547						0.07	2	2	0	-18.00	0	0.6400
116	SUTT 150 kV Bolangi - Sungguminasa	115	-5.21665	119.52397					0.35	0.27	2	2	0	-18.00	0	0.6400
117	SUTT 150 kV Bolangi - Sungguminasa	116	-5.21974	119.52219					0.45	0.16	2	2	0	-18.00	0	0.6400
118	SUTT 150 kV Bolangi - Sungguminasa	117	-5.22203	119.52090					0.37	0.16	3	3	0	-23.00	0	0.9600
119	SUTT 150 kV Bolangi - Sungguminasa	118	-5.22466	119.51934					0.48	0.17	2	2	0	-29.50	0	0.6400
120	SUTT 150 kV Bolangi - Sungguminasa	119	-5.22749	119.51776					0.37	0.14	2	1	1	-33.00	72	0.6400
121	SUTT 150 kV Bolangi - Sungguminasa	120	-5.23013	119.51620					0.34	0.19	5	4	1	-31.50	72	1.6000
122	SUTT 150 kV Bolangi - Sungguminasa	121	-5.23253	119.51454						0.12	6	5	1	-28.00	72	1.9200
123	SUTT 150 kV Bolangi - Sungguminasa	122	-5.23534	119.51251						0.12	8	7	1	-26.29	72	2.5600
124	SUTT 150 kV Bolangi - Sungguminasa	123	-5.23717	119.51107					0.45	0.12	7	6	1	-25.17	72	2.2400
125	SUTT 150 kV Bolangi - Sungguminasa	124	-5.23798	119.50784						0.09	8	8	0	-23.38	0	2.5600
126	SUTT 150 kV Bolangi - Sungguminasa	125	-5.23809	119.50464						0.14	10	10	0	-25.40	0	3.2000
127	SUTT 150 kV Bolangi - Sungguminasa	126	-5.23697	119.50194						0.21	12	12	0	-19.17	0	3.8400
128	SUTT 150 kV Bolangi - Sungguminasa	127	-5.23570	119.49899						0.10	12	12	0	-19.67	0	3.8400
129	SUTT 150 kV Bolangi - Sungguminasa	128	-5.23448	119.49601						0.12	10	10	0	-20.40	0	3.2000
130	SUTT 150 kV Bolangi - Sungguminasa	129	-5.23345	119.49323						0.12	9	9	0	-20.67	0	2.8800
131	SUTT 150 kV Bolangi - Sungguminasa	130	-5.23215	119.49025						0.27	5	5	0	-17.40	0	1.6000
132	SUTT 150 kV Bolangi - Sungguminasa	131	-5.23013	119.48788					0.37	0.16	5	5	0	-22.80	0	1.6000
133	SUTT 150 kV Bolangi - Sungguminasa	132	-5.22792	119.48560					0.48	0.13	3	3	0	-24.67	0	0.9600
134	SUTT 150 kV Bolangi - Sungguminasa	133	-5.22595	119.48315					0.37	0.14	2	2	0	-23.50	0	0.6400
137	SUTT 150 kV Bolangi - Sungguminasa	136	-5.22577188	119.4755754						0.2	5	4	1	-27.75	62	1.6
138	SUTT 150 kV Bolangi - Sungguminasa	137	-5.22735179	119.4732065						0.16	3	2	1	-24.5	62	0.96
139	SUTT 150 kV Bolangi - Sungguminasa	138	-5.22880537	119.4713121						0.07	4	3	1	-24.6667	62	1.28
140	SUTT 150 kV Bolangi - Sungguminasa	139	-5.2296734	119.4684576						0.27	4	3	1	-24.6667	62	1.28
141	SUTT 150 kV Bolangi - Sungguminasa	140	-5.23072743	119.4653853						0.16	4	2	2	-22.5	41.5	1.28
142	SUTT 150 kV Bolangi - Sungguminasa	141	-5.23159613	119.4627958						0.16	3	1	2	-32	41.5	0.96
143	SUTT 150 kV Bolangi - Sungguminasa	142	-5.14644161	119.4721469						0.17	2	1	1	-32	21	0.64

Lampiran 14 Data Eksisting Transmisi Pangkep – Tello

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Pangkep - Kima	1	-4.80181	119.58816							3	2	1	-18.00	36	0.9593
2	SUTT 150 kV Pangkep - Kima	2	-4.80162	119.58673							3	2	1	-18.00	36	0.9593
3	SUTT 150 kV Pangkep - Kima	3	-4.80129	119.58369							3	2	1	-18.00	36	0.9593
4	SUTT 150 kV Pangkep - Kima	4	-4.80284	119.58136							3	2	1	-18.00	36	0.9593
5	SUTT 150 kV Pangkep - Kima	5	-4.80609	119.57639							3	2	1	-18.00	36	0.9593
6	SUTT 150 kV Pangkep - Kima	6	-4.80827	119.57308							2	1	1	-28.00	36	0.6396
7	SUTT 150 kV Pangkep - Kima	7	-4.80989	119.57062							2	1	1	-28.00	36	0.6396
8	SUTT 150 kV Pangkep - Kima	8	-4.81308	119.57030							1	0	1	0.00	34	0.3198
9	SUTT 150 kV Pangkep - Kima	9	-4.81660	119.56992							1	1	0	-71.00	0	0.3198
10	SUTT 150 kV Pangkep - Kima	10	-4.81944	119.56956							2	2	0	-51.50	0	0.6396
11	SUTT 150 kV Pangkep - Kima	11	-4.82222	119.56923							1	1	0	-32.00	0	0.3198
12	SUTT 150 kV Pangkep - Kima	12	-4.82544	119.56887							2	1	1	-32.00	51	0.6396
13	SUTT 150 kV Pangkep - Kima	13	-4.82825	119.56856							2	1	1	-32.00	51	0.6396
14	SUTT 150 kV Pangkep - Kima	14	-4.83114	119.56823							2	1	1	-32.00	51	0.6396
15	SUTT 150 kV Pangkep - Kima	15	-4.83378	119.56793							3	2	1	-32.00	51	0.9593
16	SUTT 150 kV Pangkep - Kima	16	-4.83703	119.56760							6	5	1	-34.00	51	1.9187
17	SUTT 150 kV Pangkep - Kima	17	-4.83977	119.56951							6	5	1	-34.00	51	1.9187
18	SUTT 150 kV Pangkep - Kima	18	-4.84205	119.57128							4	4	0	-28.80	0	1.2791
19	SUTT 150 kV Pangkep - Kima	19	-4.84438	119.57297							6	6	0	-32.30	0	1.9187
20	SUTT 150 kV Pangkep - Kima	20	-4.84783	119.57535							7	7	0	-35.10	0	2.2384
21	SUTT 150 kV Pangkep - Kima	21	-4.85074	119.57747							5	5	0	-39.20	0	1.5989
22	SUTT 150 kV Pangkep - Kima	22	-4.85414	119.57850							4	4	0	-43.00	0	1.2791
23	SUTT 150 kV Pangkep - Kima	23	-4.85634	119.57917							3	3	0	-34.70	0	0.9593
24	SUTT 150 kV Pangkep - Kima	24	-4.85984	119.58021							4	4	0	-27.80	0	1.2791
25	SUTT 150 kV Pangkep - Kima	25	-4.86247	119.58104							5	5	0	-25.00	0	1.5989
26	SUTT 150 kV Pangkep - Kima	26	-4.86619	119.58216							7	6	1	-24.20	11	2.2384
27	SUTT 150 kV Pangkep - Kima	27	-4.86934	119.58307							9	8	1	-24.10	11	2.8780
28	SUTT 150 kV Pangkep - Kima	28	-4.87223	119.58395							9	8	1	-24.60	11	2.8780
29	SUTT 150 kV Pangkep - Kima	29	-4.87544	119.58496							6	5	1	-28.00	11	1.9187
30	SUTT 150 kV Pangkep - Kima	30	-4.91077	119.59192							6	5	1	-44.00	11	1.9187
31	SUTT 150 kV Pangkep - Kima	31	-4.87836	119.58584							5	4	1	-50.00	11	1.5989
32	SUTT 150 kV Pangkep - Kima	32	-4.88136	119.58673							3	3	0	-48.00	0	0.9593
33	SUTT 150 kV Pangkep - Kima	33	-4.88441	119.58766							3	3	0	-43.00	0	0.9593

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Pangkep - Kima	34	-4.88770	119.58871							3	3	0	-13.00	0	0.9593
35	SUTT 150 kV Pangkep - Kima	35	-4.89054	119.58955							2	2	0	-14.00	0	0.6396
36	SUTT 150 kV Pangkep - Kima	36	-4.89355	119.59049							2	2	0	-14.00	0	0.6396
37	SUTT 150 kV Pangkep - Kima	37	-4.89717	119.59078							1	1	0	-21.00	0	0.3198
38	SUTT 150 kV Pangkep - Kima	38	-4.90098	119.59108							5	4	1	-14.30	37	1.5989
39	SUTT 150 kV Pangkep - Kima	39	-4.90423	119.59136							5	4	1	-12.50	37	1.5989
40	SUTT 150 kV Pangkep - Kima	40	-4.90753	119.59163							7	6	1	-18.70	37	2.2384
41	SUTT 150 kV Pangkep - Kima	41	-4.91438	119.59221							7	6	1	-18.70	37	2.2384
42	SUTT 150 kV Pangkep - Kima	42	-4.91724	119.59244							6	5	1	-17.00	37	1.9187
43	SUTT 150 kV Pangkep - Kima	43	-4.92023	119.59268							6	6	0	-27.00	0	1.9187
44	SUTT 150 kV Pangkep - Kima	44	-4.92356	119.59293							4	4	0	-36.50	0	1.2791
45	SUTT 150 kV Pangkep - Kima	45	-4.92665	119.59322							2	2	0	-48.50	0	0.6396
46	SUTT 150 kV Pangkep - Kima	46	-4.93005	119.59391							3	3	0	-51.00	0	0.9593
47	SUTT 150 kV Pangkep - Kima	47	-4.93254	119.59184							3	3	0	-51.00	0	0.9593
48	SUTT 150 kV Pangkep - Kima	48	-4.93519	119.59012							2	2	0	-38.00	0	0.6396
49	SUTT 150 kV Pangkep - Kima	49	-4.93757	119.58863							3	3	0	-25.70	0	0.9593
50	SUTT 150 kV Pangkep - Kima	50	-4.94043	119.58681							5	4	1	-23.00	33	1.5989
51	SUTT 150 kV Pangkep - Kima	51	-4.94316	119.58511							4	3	1	-12.00	33	1.2791
52	SUTT 150 kV Pangkep - Kima	52	-4.94581	119.58340							5	4	1	-18.30	33	1.5989
53	SUTT 150 kV Pangkep - Kima	53	-4.94864	119.58161							6	5	1	-35.20	33	1.9187
54	SUTT 150 kV Pangkep - Kima	54	-4.95123	119.57998							7	7	0	-26.10	0	2.2384
55	SUTT 150 kV Pangkep - Kima	55	-4.95396	119.57820							6	6	0	-28.50	0	1.9187
56	SUTT 150 kV Pangkep - Kima	56	-4.95670	119.57646							3	3	0	-44.70	0	0.9593
57	SUTT 150 kV Pangkep - Kima	57	-4.95927	119.57489							3	3	0	-44.70	0	0.9593
58	SUTT 150 kV Pangkep - Kima	58	-4.96255	119.57280							3	2	1	-62.00	45	0.9593
59	SUTT 150 kV Pangkep - Kima	59	-4.96441	119.57156							6	5	1	-44.40	45	1.9187
60	SUTT 150 kV Pangkep - Kima	60	-4.96757	119.56955							4	3	1	-32.70	45	1.2791
61	SUTT 150 kV Pangkep - Kima	61	-4.97027	119.56825							4	3	1	-32.70	45	1.2791
62	SUTT 150 kV Pangkep - Kima	62	-4.97316	119.56749							3	3	0	-32.70	0	0.9593
63	SUTT 150 kV Pangkep - Kima	63	-4.97627	119.56664							2	2	0	-31.50	0	0.6396
64	SUTT 150 kV Pangkep - Kima	64	-4.97937	119.56583							1	1	0	-48.00	0	0.3198
65	SUTT 150 kV Pangkep - Kima	65	-4.98224	119.56504							0	0	0	0.00	0	0.0000
66	SUTT 150 kV Pangkep - Kima	66	-4.98546	119.56423							1	1	0	-13.00	0	0.3198
67	SUTT 150 kV Pangkep - Kima	67	-4.98848	119.56341							1	0	1	0.00	24	0.3198
68	SUTT 150 kV Pangkep - Kima	68	-4.99156	119.56259							1	0	1	0.00	24	0.3198
69	SUTT 150 kV Pangkep - Kima	69	-4.99460	119.56178							2	1	1	-21.00	24	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Pangkep - Kima	70	-4.99766	119.56097							3	2	1	-78.50	24	0.9593
71	SUTT 150 kV Pangkep - Kima	71	-5.00076	119.56013							4	3	1	-55.70	24	1.2791
72	SUTT 150 kV Pangkep - Kima	72	-5.00363	119.55935							3	3	0	-55.70	0	0.9593
73	SUTT 150 kV Pangkep - Kima	73	-5.00677	119.55852							3	3	0	-55.70	0	0.9593
74	SUTT 150 kV Pangkep - Kima	74	-5.00919	119.55787							3	3	0	-55.70	0	0.9593
75	SUTT 150 kV Pangkep - Kima	75	-5.01261	119.55685							2	2	0	-73.00	0	0.6396
76	SUTT 150 kV Pangkep - Kima	76	-5.01548	119.55600							0	0	0	0.00	0	0.0000
77	SUTT 150 kV Pangkep - Kima	77	-5.01792	119.55403							0	0	0	0.00	0	0.0000
78	SUTT 150 kV Pangkep - Kima	78	-5.02053	119.55192							0	0	0	0.00	0	0.0000
79	SUTT 150 kV Pangkep - Kima	79	-5.02304	119.54986							0	0	0	0.00	0	0.0000
80	SUTT 150 kV Pangkep - Kima	80	-5.02554	119.54790							1	0	1	0.00	10	0.3198
81	SUTT 150 kV Pangkep - Kima	81	-5.02799	119.54589							1	0	1	0.00	10	0.3198
82	SUTT 150 kV Pangkep - Kima	82	-5.03042	119.54387							2	1	1	-16.00	10	0.6396
83	SUTT 150 kV Pangkep - Kima	83	-5.03294	119.54187							2	1	1	-16.00	10	0.6396
84	SUTT 150 kV Pangkep - Kima	84	-5.03525	119.53995							2	1	1	-16.00	10	0.6396
85	SUTT 150 kV Pangkep - Kima	85	-5.03784	119.53781							2	1	1	-16.00	10	0.6396
86	SUTT 150 kV Pangkep - Kima	86	-5.04022	119.53590							1	1	0	-16.00	0	0.3198
87	SUTT 150 kV Pangkep - Kima	87	-5.04256	119.53400							1	1	0	-23.00	0	0.3198
88	SUTT 150 kV Pangkep - Kima	88	-5.04490	119.53212							4	3	1	-22.70	28	1.2791
89	SUTT 150 kV Pangkep - Kima	89	-5.04722	119.53021							4	3	1	-22.70	28	1.2791
90	SUTT 150 kV Pangkep - Kima	90	-5.04931	119.52840							5	4	1	-20.30	28	1.5989
91	SUTT 150 kV Pangkep - Kima	91	-5.05198	119.52608							4	3	1	-19.30	28	1.2791
92	SUTT 150 kV Pangkep - Kima	92	-5.05484	119.52358							3	2	1	-19.50	28	0.9593
93	SUTT 150 kV Pangkep - Kima	93	-5.05753	119.52124							7	7	0	-16.60	0	2.2384
94	SUTT 150 kV Pangkep - Kima	94	-5.05988	119.51917							8	8	0	-18.80	0	2.5582
95	SUTT 150 kV Pangkep - Kima	95	-5.06231	119.51704							10	10	0	-18.60	0	3.1978
96	SUTT 150 kV Pangkep - Kima	96	-5.06376	119.51508							7	7	0	-20.40	0	2.2384
97	SUTT 150 kV Pangkep - Kima	97	-5.06682	119.51310							7	7	0	-20.40	0	2.2384
98	SUTT 150 kV Pangkep - Kima	98	-5.06913	119.51106							7	7	0	-20.40	0	2.2384
99	SUTT 150 kV Pangkep - Kima	99	-5.07155	119.50896							7	7	0	-19.00	0	2.2384
100	SUTT 150 kV Pangkep - Kima	100	-5.07389	119.50691							9	8	1	-17.40	28	2.8780
101	SUTT 150 kV Pangkep - Kima	101	-5.07614	119.50491							8	7	1	-17.30	28	2.5582
102	SUTT 150 kV Pangkep - Kima	102	-5.07916	119.50372							7	6	1	-18.30	28	2.2384
103	SUTT 150 kV Pangkep - Kima	103	-5.08174	119.50270							8	7	1	-18.90	28	2.5582
104	SUTT 150 kV Pangkep - Kima	104	-5.08465	119.50065							8	6	2	-17.20	28	2.5582
105	SUTT 150 kV Pangkep - Kima	105	-5.08585	119.49978							7	5	2	-19.00	28	2.2384

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	SUTT 150 kV Kima-Tello	105A	-5.08586	119.49977						0.15	4	3	1	-29.00	28	1.2791
107	SUTT 150 kV Kima-Tello	106	-5.08724	119.49881						0.66	4	3	1	-29.00	28	1.2791
108	SUTT 150 kV Kima-Tello	107	-5.08965	119.49710						0.01	4	3	1	-29.67	28	1.2791
109	SUTT 150 kV Kima-Tello	108	-5.09250	119.49509						0.38	5	4	1	-25.75	28	1.5989
110	SUTT 150 kV Kima-Tello	109	-5.09528	119.49314						0.01	5	4	1	-25.75	28	1.5989
111	SUTT 150 kV Kima-Tello	110	-5.09722	119.49174						0.95	5	4	1	-22.75	28	1.5989
112	SUTT 150 kV Kima-Tello	111	-5.09968	119.49000						0.00	3	2	1	-15.50	28	0.9593
113	SUTT 150 kV Kima-Tello	112	-5.10208	119.48830						0.00	3	3	0	-18.67	0	0.9593
114	SUTT 150 kV Kima-Tello	113	-5.10483	119.48675						0.02	5	5	0	-18.00	0	1.5989
115	SUTT 150 kV Kima-Tello	114	-5.10771	119.48515						0.01	3	3	0	-19.67	0	0.9593
116	SUTT 150 kV Kima-Tello	115	-5.11031	119.48368						0.01	3	3	0	-19.67	0	0.9593
117	SUTT 150 kV Kima-Tello	116	-5.11304	119.48215						0.00	3	3	0	-23.67	0	0.9593
118	SUTT 150 kV Kima-Tello	117	-5.11557	119.48072						0.00	2	2	0	-23.00	0	0.6396
119	SUTT 150 kV Kima-Tello	118	-5.11807	119.47932						0.00	2	2	0	-23.00	0	0.6396
120	SUTT 150 kV Kima-Tello	119	-5.12087	119.47775						0.00	2	2	0	-17.50	0	0.6396
121	SUTT 150 kV Kima-Tello	120	-5.12323	119.47640						0.00	1	1	0	-22.00	0	0.3198
122	SUTT 150 kV Kima-Tello	121	-5.12640	119.47463						0.00	0	0	0	0.00	0	0.0000
123	SUTT 150 kV Kima-Tello	122	-5.12934	119.47298						0.00	0	0	0	0.00	0	0.0000
124	SUTT 150 kV Kima-Tello	123	-5.13229	119.47174						0.00	0	0	0	0.00	0	0.0000
125	SUTT 150 kV Kima-Tello	124	-5.13559	119.47036						0.00	0	0	0	0.00	0	0.0000
126	SUTT 150 kV Kima-Tello	125	-5.13857	119.46914						0.00	0	0	0	0.00	0	0.0000
127	SUTT 150 kV Kima-Tello	126	-5.14170	119.47077						0.09	1	0	1	0.00	68	0.3198
128	SUTT 150 kV Kima-Tello	127	-5.14419	119.47295						0.56	2	0	2	0.00	43	0.6396
129	SUTT 150 kV Kima-Tello	128	-5.14586	119.47312						0.27	2	0	2	0.00	43	0.6396
130	SUTT 150 kV Kima-Tello	129	-5.14656	119.47351						0.14	2	0	2	0.00	43	0.6396

Lampiran 15 Data Eksisting Transmisi Pare-Pare – Balusu

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Parepare - Balusu	247	-4.02376	119.63652						0.964	1	1	0	-20.00	0	0.3200
2	SUTT 150 kV Parepare - Balusu	248	-4.02829	119.63591						1.354	3	3	0	-45.33	0	0.9590
3	SUTT 150 kV Parepare - Balusu	249	-4.03144	119.63543						0.37	2	2	0	-58.00	0	0.6400
4	SUTT 150 kV Parepare - Balusu	250	-4.03414	119.63505						1.012	3	3	0	-51.00	0	0.9590
5	SUTT 150 kV Parepare - Balusu	251	-4.03598	119.63481						0.691	2	2	0	-44.50	0	0.6400
6	SUTT 150 kV Parepare - Balusu	252	-4.03841	119.63449						0.824	2	2	0	-44.50	0	0.6400
7	SUTT 150 kV Parepare - Balusu	253	-4.04090	119.63416						0.475	1	1	0	-52.00	0	0.3200
8	SUTT 150 kV Parepare - Balusu	254	-4.04319	119.63403						2.332	0	0	0	0.00	0	0.0000
9	SUTT 150 kV Parepare - Balusu	255	-4.04614	119.63389						0.992	1	1	0	-119.00	0	0.3200
10	SUTT 150 kV Parepare - Balusu	256	-4.05033	119.63374						0.888	1	1	0	-119.00	0	0.3200
11	SUTT 150 kV Parepare - Balusu	257	-4.05375	119.63357						0.771	2	2	0	-67.50	0	0.6400
12	SUTT 150 kV Parepare - Balusu	258	-4.05689	119.63266						0.364	4	4	0	-52.25	0	1.2790
13	SUTT 150 kV Parepare - Balusu	259	-4.06202	119.63123						1.102	4	4	0	-57.50	0	1.2790
14	SUTT 150 kV Parepare - Balusu	260	-4.06390	119.63062						1.281	4	4	0	-55.50	0	1.2790
15	SUTT 150 kV Parepare - Balusu	261	-4.06727	119.62954						1.6	5	5	0	-51.00	0	1.5990
16	SUTT 150 kV Parepare - Balusu	262	-4.07076	119.62852						0.872	6	6	0	-58.83	0	1.9190
17	SUTT 150 kV Parepare - Balusu	263	-4.07474	119.62663						1.37	11	9	2	-77.67	30	3.5180
18	SUTT 150 kV Parepare - Balusu	264	-4.07925	119.62480						0.57	13	11	2	-71.73	30	4.1570
19	SUTT 150 kV Parepare - Balusu	265	-4.08106	119.62409						2.33	12	10	2	-74.60	30	3.8370
20	SUTT 150 kV Parepare - Balusu	266	-4.08359	119.62304						0.57	11	9	2	-78.33	30	3.5180
21	SUTT 150 kV Parepare - Balusu	267	-4.08602	119.62243						0.78	10	8	2	-79.00	30	3.1980
22	SUTT 150 kV Parepare - Balusu	268	-4.08856	119.62189						0.32	7	6	1	-88.67	28	2.2380
23	SUTT 150 kV Parepare - Balusu	269	-4.09152	119.62110						0.70	1	1	0	-53.00	0	0.3200
24	SUTT 150 kV Parepare - Balusu	270	-4.09418	119.62054						0.32	0	0	0	0.00	0	0.0000
25	SUTT 150 kV Parepare - Balusu	271	-4.09769	119.61965						0.93	0	0	0	0.00	0	0.0000
26	SUTT 150 kV Parepare - Balusu	272	-4.09940	119.61927						1.44	0	0	0	0.00	0	0.0000
27	SUTT 150 kV Parepare - Balusu	273	-4.10338	119.61828						0.35	1	0	1	0.00	46	0.3200
28	SUTT 150 kV Parepare - Balusu	274	-4.10532	119.61917		ada			2.851	0.90	1	0	1	0.00	46	0.3200
29	SUTT 150 kV Parepare - Balusu	275	-4.10769	119.62015		ada			1.532	0.37	2	1	1	-18.00	46	0.6400
30	SUTT 150 kV Parepare - Balusu	276	-4.11089	119.62146						0.23	3	2	1	-14.00	46	0.9590
31	SUTT 150 kV Parepare - Balusu	277	-4.11381	119.62272						0.18	4	3	1	-19.00	46	1.2790
32	SUTT 150 kV Parepare - Balusu	278	-4.11514	119.62232						0.27	4	4	0	-19.00	0	1.2790
33	SUTT 150 kV Parepare - Balusu	279	-4.11880	119.62128						0.19	6	6	0	-32.67	0	1.9190

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Parepare - Balusu	280	-4.12080	119.62122						0.63	6	6	0	-32.67	0	1.9190
35	SUTT 150 kV Parepare - Balusu	281	-4.12340	119.62098						0.38	5	5	0	-35.60	0	1.5990
36	SUTT 150 kV Parepare - Balusu	282	-4.12587	119.62206						0.66	4	4	0	-39.75	0	1.2790
37	SUTT 150 kV Parepare - Balusu	283	-4.12759	119.62288						0.64	4	4	0	-39.75	0	1.2790
38	SUTT 150 kV Parepare - Balusu	284	-4.13102	119.62430						0.50	1	1	0	-68.00	0	0.3200
39	SUTT 150 kV Parepare - Balusu	285	-4.13475	119.62580						0.43	0	0	0	0.00	0	0.0000
40	SUTT 150 kV Parepare - Balusu	286	-4.13673	119.62494						0.95	0	0	0	0.00	0	0.0000
41	SUTT 150 kV Parepare - Balusu	287	-4.14006	119.62344						0.56	0	0	0	0.00	0	0.0000
42	SUTT 150 kV Parepare - Balusu	288	-4.14349	119.62163						0.30	1	1	0	-9.00	0	0.3200
43	SUTT 150 kV Parepare - Balusu	289	-4.14570	119.62224						0.77	2	2	0	-48.00	0	0.6400
44	SUTT 150 kV Parepare - Balusu	290	-4.14771	119.62288						0.56	2	2	0	-48.00	0	0.6400
45	SUTT 150 kV Parepare - Balusu	291	-4.14938	119.62537						0.44	2	2	0	-69.50	0	0.6400
46	SUTT 150 kV Parepare - Balusu	292	-4.15234	119.62991						0.28	2	2	0	-69.50	0	0.6400
47	SUTT 150 kV Parepare - Balusu	293	-4.15358	119.63172						0.27	2	2	0	-69.50	0	0.6400
48	SUTT 150 kV Parepare - Balusu	294	-4.15544	119.63466						0.71	0	0	0	0.00	0	0.0000
49	SUTT 150 kV Parepare - Balusu	295	-4.15750	119.63764						0.56	1	1	0	-61.00	0	0.3200
50	SUTT 150 kV Parepare - Balusu	296	-4.16030	119.63996						0.14	3	3	0	-45.67	0	0.9590
51	SUTT 150 kV Parepare - Balusu	297	-4.16298	119.64194						0.28	5	4	1	-42.00	106	1.5990
52	SUTT 150 kV Parepare - Balusu	298	-4.16628	119.64169						0.39	6	5	1	-48.20	106	1.9190
53	SUTT 150 kV Parepare - Balusu	299	-4.16961	119.64139						0.63	5	3	2	-47.33	96.5	1.5990
54	SUTT 150 kV Parepare - Balusu	300	-4.17305	119.64108						1.37	5	3	2	-39.00	96.5	1.5990
55	SUTT 150 kV Parepare - Balusu	301	-4.17643	119.64078						0.32	3	1	2	-48.00	96.5	0.9590
56	SUTT 150 kV Parepare - Balusu	302	-4.17981	119.64045						0.68	3	3	0	-73.00	0	0.9590
57	SUTT 150 kV Parepare - Balusu	303	-4.18275	119.64018						1.11	3	3	0	-73.00	0	0.9590
58	SUTT 150 kV Parepare - Balusu	304	-4.18599	119.63990						0.89	4	3	1	-73.00	53	1.2790
59	SUTT 150 kV Parepare - Balusu	305	-4.18935	119.63958						1.48	3	2	1	-85.50	53	0.9590
60	SUTT 150 kV Parepare - Balusu	306	-4.19296	119.63924						1.05	5	4	1	-75.00	53	1.5990
61	SUTT 150 kV Parepare - Balusu	307	-4.19599	119.63898						0.53	5	4	1	-75.00	53	1.5990
62	SUTT 150 kV Parepare - Balusu	308	-4.19885	119.63915						0.75	3	2	1	-64.50	53	0.9590
63	SUTT 150 kV Parepare - Balusu	309	-4.20159	119.63935						1.17	3	3	0	-22.33	0	0.9590
64	SUTT 150 kV Parepare - Balusu	310	-4.20548	119.63958						0.52	5	5	0	-37.40	0	1.5990
65	SUTT 150 kV Parepare - Balusu	311	-4.20876	119.63976						0.99	4	4	0	-37.00	0	1.2790
66	SUTT 150 kV Parepare - Balusu	312	-4.21146	119.63989						1.691	5	5	0	-35.20	0	1.5990
67	SUTT 150 kV Parepare - Balusu	313	-4.21422	119.63988						1.061	5	5	0	-35.20	0	1.5990
68	SUTT 150 kV Parepare - Balusu	314	-4.21850	119.63987						0.934	1	1	0	-70.00	0	0.3200
69	SUTT 150 kV Parepare - Balusu	315	-4.22228	119.63941						1.107	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Parepare - Balusu	316	-4.22500	119.63902						1.39	0	0	0	0.00	0	0.0000
71	SUTT 150 kV Parepare - Balusu	317	-4.22694	119.63869						0.66	0	0	0	0.00	0	0.0000
72	SUTT 150 kV Parepare - Balusu	318	-4.23085	119.63914						1.198	0	0	0	0.00	0	0.0000
73	SUTT 150 kV Parepare - Balusu	319	-4.23384	119.63957						1.713	0	0	0	0.00	0	0.0000
74	SUTT 150 kV Parepare - Balusu	320	-4.23597	119.63985						2.04	0	0	0	0.00	0	0.0000
75	SUTT 150 kV Parepare - Balusu	321	-4.23831	119.64015						1.016	0	0	0	0.00	0	0.0000
76	SUTT 150 kV Parepare - Balusu	322	-4.24073	119.64045						0.485	0	0	0	0.00	0	0.0000
77	SUTT 150 kV Parepare - Balusu	323	-4.24411	119.64164						1.328	1	1	0	-47.00	0	0.3200
78	SUTT 150 kV Parepare - Balusu	324	-4.24598	119.64224						0.684	2	2	0	-67.00	0	0.6400
79	SUTT 150 kV Parepare - Balusu	325	-4.24890	119.64236						1.29	2	2	0	-67.00	0	0.6400
80	SUTT 150 kV Parepare - Balusu	326	-4.25219	119.64265						1.77	2	2	0	-67.00	0	0.6400
81	SUTT 150 kV Parepare - Balusu	327	-4.25577	119.64301						0.27	2	2	0	-67.00	0	0.6400
82	SUTT 150 kV Parepare - Balusu	328	-4.25847	119.64375						0.35	2	2	0	-67.00	0	0.6400
83	SUTT 150 kV Parepare - Balusu	329	-4.26184	119.64465						1.31	3	2	1	-57.50	57	0.9590
84	SUTT 150 kV Parepare - Balusu	330	-4.26537	119.64558						1.13	3	2	1	-27.00	57	0.9590
85	SUTT 150 kV Parepare - Balusu	331	-4.26843	119.64647						0.66	6	3	3	-24.33	61	1.9190
86	SUTT 150 kV Parepare - Balusu	332	-4.27161	119.64735						0.65	7	4	3	-31.50	61	2.2380
87	SUTT 150 kV Parepare - Balusu	333	-4.27465	119.64812						0.73	7	5	2	-37.40	63	2.2380
88	SUTT 150 kV Parepare - Balusu	334	-4.27764	119.64822						0.30	8	6	2	-40.67	63	2.5580
89	SUTT 150 kV Parepare - Balusu	335	-4.28042	119.64828						0.54	8	6	2	-38.33	63	2.5580
90	SUTT 150 kV Parepare - Balusu	336	-4.28315	119.64835						0.11	10	8	2	-39.00	63	3.1980
91	SUTT 150 kV Parepare - Balusu	337	-4.28633	119.64845						0.65	4	4	0	-32.25	0	1.2790
92	SUTT 150 kV Parepare - Balusu	338	-4.28996	119.64855						0.99	8	4	4	-35.25	46.5	2.5580
93	SUTT 150 kV Parepare - Balusu	339	-4.29311	119.64862						0.56	7	3	4	-37.33	46.5	2.2380
94	SUTT 150 kV Parepare - Balusu	340	-4.29623	119.64869						0.44	11	5	6	-51.40	46.5	3.5180
95	SUTT 150 kV Parepare - Balusu	#001A	-4.29314	119.63337						0.41	4	3	1	-39.67	26	1.2790
96	SUTT 150 kV Parepare - Balusu	#002A	-4.29382	119.63556						0.87	6	4	2	-38.00	32	1.9190
97	SUTT 150 kV Parepare - Balusu	#003A	-4.29579	119.63761						1.37	11	7	4	-54.14	39.5	3.5180
98	SUTT 150 kV Parepare - Balusu	#004A	-4.29796	119.64069						2.02	13	8	5	-50.38	41.6	4.1570
99	SUTT 150 kV Parepare - Balusu	#005A	-4.29798	119.64294						1.12	13	7	6	-45.14	45.67	4.1570
100	SUTT 150 kV Parepare - Balusu	#006A	-4.29787	119.64558						0.58	12	6	6	-50.33	45.67	3.8370
101	SUTT 150 kV Parepare - Balusu	#007A	-4.29810	119.64856						0.21	12	6	6	-42.17	46.5	3.8370

Lampiran 16 Data Eksisting Transmisi Pare-Pare – Sidrap

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 KV SIDRAP-PPARE		-4.02183	119.63737						0.486	11	11	0	-26.36	0	3.5175
2	SUTT 150 KV SIDRAP-PPARE		-4.01913	119.63846						0.414	10	10	0	-26.30	0	3.1978
3	SUTT 150 KV SIDRAP-PPARE		-4.01693	119.63931						0.439	11	11	0	-31.73	0	3.5175
4	SUTT 150 KV SIDRAP-PPARE		-4.01439	119.64033						0.736	8	8	0	-37.00	0	2.5582
5	SUTT 150 KV SIDRAP-PPARE		-4.01135	119.64210						0.618	8	8	0	-47.38	0	2.5582
6	SUTT 150 KV SIDRAP-PPARE		-4.00910	119.64391						0.98	6	6	0	-50.00	0	1.9187
7	SUTT 150 KV SIDRAP-PPARE		-4.00754	119.64514						0.883	5	5	0	-51.60	0	1.5989
8	SUTT 150 KV SIDRAP-PPARE		-4.00533	119.64697						0.87	3	3	0	-58.00	0	0.9593
9	SUTT 150 KV SIDRAP-PPARE		-4.00302	119.64886						0.874	2	2	0	-90.00	0	0.6396
10	SUTT 150 KV SIDRAP-PPARE		-4.00064	119.65076				1.77		1.271	2	1	1	-96.00	14	0.6396
11	SUTT 150 KV SIDRAP-PPARE		-3.99859	119.65246				1.92		1.171	3	2	1	-61.50	14	0.9593
12	SUTT 150 KV SIDRAP-PPARE		-3.99718	119.65366				1.19		1.03	3	2	1	-61.50	14	0.9593
13	SUTT 150 KV SIDRAP-PPARE		-3.99542	119.65504						1.651	3	2	1	-61.50	14	0.9593
14	SUTT 150 KV SIDRAP-PPARE		-3.99341	119.65675				3.97		0.651	3	2	1	-61.50	14	0.9593
15	SUTT 150 KV SIDRAP-PPARE		-3.99120	119.65857						0.486	2	1	1	-27.00	14	0.6396
16	SUTT 150 KV SIDRAP-PPARE		-3.98899	119.66033						1.129	3	2	1	-91.00	14	0.9593
17	SUTT 150 KV SIDRAP-PPARE		-3.98658	119.66241						1.32	3	3	0	-64.33	0	0.9593
18	SUTT 150 KV SIDRAP-PPARE		-3.98459	119.66403						1.14	2	2	0	-83.00	0	0.6396
19	SUTT 150 KV SIDRAP-PPARE		-3.98214	119.66606						0.98	2	2	0	-83.00	0	0.6396
20	SUTT 150 KV SIDRAP-PPARE		-3.97991	119.66785						0.24	5	5	0	-56.60	0	1.5989
21	SUTT 150 KV SIDRAP-PPARE		-3.97818	119.66935						0.62	6	6	0	-27.67	0	1.9187
22	SUTT 150 KV SIDRAP-PPARE		-3.97655	119.67063						0.64	8	8	0	-39.75	0	2.5582
23	SUTT 150 KV SIDRAP-PPARE		-3.97455	119.67228						0.75	11	11	0	-33.73	0	3.5175
24	SUTT 150 KV SIDRAP-PPARE		-3.97251	119.67394						1.12	11	11	0	-33.73	0	3.5175
25	SUTT 150 KV SIDRAP-PPARE		-3.97064	119.67549				2.37		0.65	13	12	1	-39.50	48	4.1571
26	SUTT 150 KV SIDRAP-PPARE		-3.96859	119.67716				0.27		0.87	12	11	1	-41.55	48	3.8373
27	SUTT 150 KV SIDRAP-PPARE		-3.96618	119.67922						1.09	10	9	1	-46.67	48	3.1978
28	SUTT 150 KV SIDRAP-PPARE		-3.96359	119.68134						1.22	7	6	1	-40.67	48	2.2384
29	SUTT 150 KV SIDRAP-PPARE		-3.96199	119.68254						0.62	5	4	1	-55.00	48	1.5989
30	SUTT 150 KV SIDRAP-PPARE		-3.95931	119.68432						1.11	6	4	2	-45.75	62.5	1.9187
31	SUTT 150 KV SIDRAP-PPARE		-3.95637	119.68602						0.47	4	3	1	-13.00	77	1.2791
32	SUTT 150 KV SIDRAP-PPARE		-3.95378	119.68746						0.48	4	3	1	-13.00	77	1.2791
33	SUTT 150 KV SIDRAP-PPARE		-3.95111	119.68933						0.74	4	3	1	-13.00	77	1.2791

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 KV SIDRAP-PPARE		-3.94824	119.69102						0.47	6	5	1	-53.60	77	1.9187
35	SUTT 150 KV SIDRAP-PPARE		-3.94551	119.69274						0.26	6	6	0	-58.17	0	1.9187
36	SUTT 150 KV SIDRAP-PPARE		-3.94254	119.69465						0.40	9	9	0	-52.11	0	2.8780
37	SUTT 150 KV SIDRAP-PPARE		-3.93999	119.69610		0.5				0.20	8	8	0	-49.25	0	2.5582
38	SUTT 150 KV SIDRAP-PPARE		-3.93726	119.69776						0.63	13	13	0	-45.38	0	4.1571
39	SUTT 150 KV SIDRAP-PPARE		-3.93491	119.69999						1.06	14	13	1	-45.08	45	4.4769
40	SUTT 150 KV SIDRAP-PPARE		-3.93265	119.70215						1.18	9	8	1	-29.00	45	2.8780
41	SUTT 150 KV SIDRAP-PPARE		-3.93099	119.70369						0.51	8	7	1	-18.29	45	2.5582
42	SUTT 150 KV SIDRAP-PPARE		-3.92970	119.70486						0.14	10	9	1	-17.78	45	3.1978
43	SUTT 150 KV SIDRAP-PPARE		-3.92696	119.70738						0.82	12	12	0	-21.92	0	3.8373
44	SUTT 150 KV SIDRAP-PPARE		-3.92428	119.70996						0.85	9	9	0	-25.67	0	2.8780
45	SUTT 150 KV SIDRAP-PPARE		-3.92200	119.71217						0.58	8	8	0	-24.38	0	2.5582
46	SUTT 150 KV SIDRAP-PPARE		-3.92042	119.71524						1.14	13	10	3	-25.80	74	4.1571
47	SUTT 150 KV SIDRAP-PPARE		-3.91911	119.71782						0.95	13	10	3	-24.20	74	4.1571
48	SUTT 150 KV SIDRAP-PPARE		-3.91770	119.72040				3.78		0.39	12	10	2	-43.10	63.5	3.8373
49	SUTT 150 KV SIDRAP-PPARE		-3.91690	119.72189				1.03		0.48	12	10	2	-43.10	63.5	3.8373
50	SUTT 150 KV SIDRAP-PPARE		-3.91553	119.72486				0.17		0.85	17	15	2	-41.13	63.5	5.4362
51	SUTT 150 KV SIDRAP-PPARE		-3.91424	119.72768				0.89		0.91	18	16	2	-39.19	63.5	5.7560
52	SUTT 150 KV SIDRAP-PPARE		-3.91334	119.72945				2.15		0.48	14	14	0	-41.71	0	4.4769
53	SUTT 150 KV SIDRAP-PPARE		-3.91413	119.73197				0.5		1.17	14	14	0	-44.07	0	4.4769
54	SUTT 150 KV SIDRAP-PPARE		-3.91483	119.73446						0.39	14	14	0	-35.21	0	4.4769
55	SUTT 150 KV SIDRAP-PPARE		-3.91574	119.73772						0.35	15	15	0	-33.93	0	4.7966
56	SUTT 150 KV SIDRAP-PPARE		-3.91662	119.74069						0.47	12	12	0	-32.75	0	3.8373
57	SUTT 150 KV SIDRAP-PPARE		-3.91753	119.74388						0.45	12	10	2	-26.40	45	3.8373
58	SUTT 150 KV SIDRAP-PPARE		-3.91836	119.74659						0.32	10	8	2	-25.75	45	3.1978
59	SUTT 150 KV SIDRAP-PPARE		-3.91786	119.74988						0.32	8	6	2	-21.00	45	2.5582
60	SUTT 150 KV SIDRAP-PPARE		-3.91750	119.75222						0.05	6	4	2	-27.25	45	1.9187

Lampiran 17 Data Eksisting Transmisi Pare-Pare – Suppa

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	Parepare-Suppa	1	-3.96909	119.62559						0.3	5	5	0	-52.80	0	1.5989
2	Parepare-Suppa	2	-3.96942	119.62773						0.49	5	5	0	-52.80	0	1.5989
3	Parepare-Suppa	3	-3.97075	119.63148						0.38	5	5	0	-52.80	0	1.5989
4	Parepare-Suppa	4	-3.97160	119.63404						1.41	6	6	0	-54.17	0	1.9187
5	Parepare-Suppa	5	-3.97222	119.63595						1.75	6	6	0	-54.17	0	1.9187
6	Parepare-Suppa	6	-3.97331	119.63916						1.13	4	4	0	-47.25	0	1.2791
7	Parepare-Suppa	7	-3.97388	119.64081						0.61	2	2	0	-50.50	0	0.6396
8	Parepare-Suppa	8	-3.97678	119.64230						0.63	2	2	0	-50.50	0	0.6396
9	Parepare-Suppa	9	-3.97930	119.64244						0.96	2	2	0	-50.50	0	0.6396
10	Parepare-Suppa	10	-3.98104	119.64194						0.87	3	2	1	-50.50	72	0.9593
11	Parepare-Suppa	11	-3.98371	119.64137						0.86	3	2	1	-50.50	72	0.9593
12	Parepare-Suppa	12	-3.98570	119.64022						0.58	2	1	1	-64.00	72	0.6396
13	Parepare-Suppa	13	-3.98776	119.63963						0.01	2	1	1	-60.00	72	0.6396
14	Parepare-Suppa	14	-3.99089	119.63872						0.79	2	1	1	-60.00	72	0.6396
15	Parepare-Suppa	15	-3.99336	119.63821						1.11	1	1	0	-60.00	0	0.3198
16	Parepare-Suppa	16	-3.99615	119.63730						0.66	1	1	0	-60.00	0	0.3198
17	Parepare-Suppa	17	-3.99809	119.63674						0.27	2	2	0	-72.00	0	0.6396
18	Parepare-Suppa	18	-3.99990	119.63626						0.39	2	2	0	-72.00	0	0.6396
19	Parepare-Suppa	19	-4.00229	119.63682						0.56	3	3	0	-66.67	0	0.9593
20	Parepare-Suppa	20	-4.00525	119.63761						0.56	4	4	0	-111.00	0	1.2791
21	Parepare-Suppa	21	-4.00841	119.63849						0.42	4	4	0	-111.00	0	1.2791
22	Parepare-Suppa	22	-4.01162	119.63799						0.99	4	4	0	-111.00	0	1.2791
23	Parepare-Suppa	23	-4.01523	119.63755						0.88	3	3	0	-120.00	0	0.9593
24	Parepare-Suppa	24	-4.01876	119.63741						0.81	3	3	0	-40.67	0	0.9593
25	Parepare-Suppa	25	-4.02149	119.63595						0.33	1	1	0	-20.00	0	0.3198

Lampiran 18 Data Eksisting Transmisi Punagaya – Tanjung Bunga

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Punagaya-Tanjung Bunga	1	-5.62594	119.55082						0.15	0	0	0	0.00	0	0.0000
2	SUTT 150 kV Punagaya-Tanjung Bunga	2	-5.62621	119.55121						0.16	0	0	0	0.00	0	0.0000
3	SUTT 150 kV Punagaya-Tanjung Bunga	3	-5.62752	119.55329						0.16	0	0	0	0.00	0	0.0000
4	SUTT 150 kV Punagaya-Tanjung Bunga	4	-5.62871	119.55497						0.17	0	0	0	0.00	0	0.0000
5	SUTT 150 kV Punagaya-Tanjung Bunga	5	-5.62957	119.55757						0.13	0	0	0	0.00	0	0.0000
6	SUTT 150 kV Punagaya-Tanjung Bunga	6	-5.62724	119.56006						0.14	0	0	0	0.00	0	0.0000
7	SUTT 150 kV Punagaya-Tanjung Bunga	7	-5.62500	119.56235						0.14	0	0	0	0.00	0	0.0000
8	SUTT 150 kV Punagaya-Tanjung Bunga	8	-5.62339	119.56336						0.02	0	0	0	0.00	0	0.0000
9	SUTT 150 kV Punagaya-Tanjung Bunga	9	-5.62086	119.56552						0.02	0	0	0	0.00	0	0.0000
10	SUTT 150 kV Punagaya-Tanjung Bunga	10	-5.61900	119.56629						0.02	0	0	0	0.00	0	0.0000
11	SUTT 150 kV Punagaya-Tanjung Bunga	11	-5.61808	119.56908		ada			6	0.02	0	0	0	0.00	0	0.0000
12	SUTT 150 kV Punagaya-Tanjung Bunga	12	-5.61716	119.57217		ada			5	0.03	0	0	0	0.00	0	0.0000
13	SUTT 150 kV Punagaya-Tanjung Bunga	13	-5.61543	119.57485		ada			5	0.03	0	0	0	0.00	0	0.0000
14	SUTT 150 kV Punagaya-Tanjung Bunga	14	-5.61386	119.57718						0.02	0	0	0	0.00	0	0.0000
15	SUTT 150 kV Punagaya-Tanjung Bunga	15	-5.61218	119.57903						0.02	0	0	0	0.00	0	0.0000
16	SUTT 150 kV Punagaya-Tanjung Bunga	16	-5.60961	119.58002						0.02	0	0	0	0.00	0	0.0000
17	SUTT 150 kV Punagaya-Tanjung Bunga	17	-5.60619	119.58122						0.05	0	0	0	0.00	0	0.0000
18	SUTT 150 kV Punagaya-Tanjung Bunga	18	-5.60273	119.58231						0.01	0	0	0	0.00	0	0.0000
19	SUTT 150 kV Punagaya-Tanjung Bunga	19	-5.59955	119.58166						0.02	0	0	0	0.00	0	0.0000
20	SUTT 150 kV Punagaya-Tanjung Bunga	20	-5.59695	119.58115						0.06	0	0	0	0.00	0	0.0000
21	SUTT 150 kV Punagaya-Tanjung Bunga	21	-5.59367	119.58068						0.03	0	0	0	0.00	0	0.0000
22	SUTT 150 kV Punagaya-Tanjung Bunga	22	-5.59102	119.58033						0.05	0	0	0	0.00	0	0.0000
23	SUTT 150 kV Punagaya-Tanjung Bunga	23	-5.58807	119.58004						0.05	0	0	0	0.00	0	0.0000
24	SUTT 150 kV Punagaya-Tanjung Bunga	24	-5.58599	119.57750						0.12	0	0	0	0.00	0	0.0000
25	SUTT 150 kV Punagaya-Tanjung Bunga	25	-5.58358	119.57530						0.19	0	0	0	0.00	0	0.0000
26	SUTT 150 kV Punagaya-Tanjung Bunga	26	-5.58163	119.57316						0.24	0	0	0	0.00	0	0.0000
27	SUTT 150 kV Punagaya-Tanjung Bunga	27	-5.57932	119.57062						0.20	0	0	0	0.00	0	0.0000
28	SUTT 150 kV Punagaya-Tanjung Bunga	28	-5.57703	119.56819						0.15	0	0	0	0.00	0	0.0000
29	SUTT 150 kV Punagaya-Tanjung Bunga	29	-5.57505	119.56602						0.06	0	0	0	0.00	0	0.0000
30	SUTT 150 kV Punagaya-Tanjung Bunga	30	-5.57313	119.56383						0.12	0	0	0	0.00	0	0.0000
31	SUTT 150 kV Punagaya-Tanjung Bunga	31	-5.57119	119.56152						0.13	0	0	0	0.00	0	0.0000
32	SUTT 150 kV Punagaya-Tanjung Bunga	32	-5.56918	119.55918						0.26	0	0	0	0.00	0	0.0000
33	SUTT 150 kV Punagaya-Tanjung Bunga	33	-5.56771	119.55744						0.15	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Punagaya-Tanjung Bunga	34	-5.56617	119.55580				ada	9	0.22	0	0	0	0.00	0	0.0000
35	SUTT 150 kV Punagaya-Tanjung Bunga	35	-5.56468	119.55413						0.33	0	0	0	0.00	0	0.0000
36	SUTT 150 kV Punagaya-Tanjung Bunga	36	-5.56324	119.55231						0.34	0	0	0	0.00	0	0.0000
37	SUTT 150 kV Punagaya-Tanjung Bunga	37	-5.56124	119.55026						0.24	0	0	0	0.00	0	0.0000
38	SUTT 150 kV Punagaya-Tanjung Bunga	38	-5.55866	119.54741						0.35	0	0	0	0.00	0	0.0000
39	SUTT 150 kV Punagaya-Tanjung Bunga	39	-5.55658	119.54513						0.18	0	0	0	0.00	0	0.0000
40	SUTT 150 kV Punagaya-Tanjung Bunga	40	-5.55425	119.54247						0.26	0	0	0	0.00	0	0.0000
41	SUTT 150 kV Punagaya-Tanjung Bunga	41	-5.55267	119.54082						0.27	0	0	0	0.00	0	0.0000
42	SUTT 150 kV Punagaya-Tanjung Bunga	42	-5.55109	119.53899						0.14	0	0	0	0.00	0	0.0000
43	SUTT 150 kV Punagaya-Tanjung Bunga	43	-5.54883	119.53666						0.29	0	0	0	0.00	0	0.0000
44	SUTT 150 kV Punagaya-Tanjung Bunga	44	-5.54649	119.53417						0.36	0	0	0	0.00	0	0.0000
45	SUTT 150 kV Punagaya-Tanjung Bunga	45	-5.54401	119.53165						0.11	0	0	0	0.00	0	0.0000
46	SUTT 150 kV Punagaya-Tanjung Bunga	46	-5.54228	119.52961						0.13	0	0	0	0.00	0	0.0000
47	SUTT 150 kV Punagaya-Tanjung Bunga	47	-5.54021	119.52719						0.20	0	0	0	0.00	0	0.0000
48	SUTT 150 kV Punagaya-Tanjung Bunga	48	-5.53836	119.52506						0.22	0	0	0	0.00	0	0.0000
49	SUTT 150 kV Punagaya-Tanjung Bunga	49	-5.53641	119.52286						0.23	0	0	0	0.00	0	0.0000
50	SUTT 150 kV Punagaya-Tanjung Bunga	50	-5.53466	119.52079						0.22	0	0	0	0.00	0	0.0000
51	SUTT 150 kV Punagaya-Tanjung Bunga	51	-5.53228	119.51863						0.32	0	0	0	0.00	0	0.0000
52	SUTT 150 kV Punagaya-Tanjung Bunga	52	-5.52971	119.51655						0.26	0	0	0	0.00	0	0.0000
53	SUTT 150 kV Punagaya-Tanjung Bunga	53	-5.52720	119.51418						0.29	0	0	0	0.00	0	0.0000
54	SUTT 150 kV Punagaya-Tanjung Bunga	54	-5.52470	119.51221						0.23	0	0	0	0.00	0	0.0000
55	SUTT 150 kV Punagaya-Tanjung Bunga	55	-5.52230	119.51019						0.26	0	0	0	0.00	0	0.0000
56	SUTT 150 kV Punagaya-Tanjung Bunga	56	-5.51988	119.50803						0.20	0	0	0	0.00	0	0.0000
57	SUTT 150 kV Punagaya-Tanjung Bunga	57	-5.51804	119.50553						0.25	0	0	0	0.00	0	0.0000
58	SUTT 150 kV Punagaya-Tanjung Bunga	58	-5.51614	119.50282						0.22	0	0	0	0.00	0	0.0000
59	SUTT 150 kV Punagaya-Tanjung Bunga	59	-5.51456	119.50048						0.23	0	0	0	0.00	0	0.0000
60	SUTT 150 kV Punagaya-Tanjung Bunga	60	-5.51246	119.49748						0.30	0	0	0	0.00	0	0.0000
61	SUTT 150 kV Punagaya-Tanjung Bunga	61	-5.51052	119.49469						0.28	0	0	0	0.00	0	0.0000
62	SUTT 150 kV Punagaya-Tanjung Bunga	62	-5.50914	119.49285						0.47	0	0	0	0.00	0	0.0000
63	SUTT 150 kV Punagaya-Tanjung Bunga	63	-5.50653	119.49073						0.26	0	0	0	0.00	0	0.0000
64	SUTT 150 kV Punagaya-Tanjung Bunga	64	-5.50403	119.48845						0.23	0	0	0	0.00	0	0.0000
65	SUTT 150 kV Punagaya-Tanjung Bunga	65	-5.50175	119.48628				ada	9	0.66	0	0	0	0.00	0	0.0000
66	SUTT 150 kV Punagaya-Tanjung Bunga	66	-5.49926	119.48412						0.38	0	0	0	0.00	0	0.0000
67	SUTT 150 kV Punagaya-Tanjung Bunga	67	-5.49676	119.48186						0.72	0	0	0	0.00	0	0.0000
68	SUTT 150 kV Punagaya-Tanjung Bunga	68	-5.49442	119.47967				ada	9	0.25	0	0	0	0.00	0	0.0000
69	SUTT 150 kV Punagaya-Tanjung Bunga	69	-5.49201	119.47747						0.41	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Punagaya-Tanjung Bunga	70	-5.48968	119.47546						0.27	0	0	0	0.00	0	0.0000
71	SUTT 150 kV Punagaya-Tanjung Bunga	71	-5.48659	119.47511						0.25	0	0	0	0.00	0	0.0000
72	SUTT 150 kV Punagaya-Tanjung Bunga	72	-5.48340	119.47463						0.37	0	0	0	0.00	0	0.0000
73	SUTT 150 kV Punagaya-Tanjung Bunga	73	-5.48031	119.47429						0.3	0	0	0	0.00	0	0.0000
74	SUTT 150 kV Punagaya-Tanjung Bunga	74	-5.47700	119.47392						0.35	0	0	0	0.00	0	0.0000
75	SUTT 150 kV Punagaya-Tanjung Bunga	75	-5.47383	119.47358						0.37	0	0	0	0.00	0	0.0000
76	SUTT 150 kV Punagaya-Tanjung Bunga	76	-5.47067	119.47321						0.27	0	0	0	0.00	0	0.0000
77	SUTT 150 kV Punagaya-Tanjung Bunga	77	-5.46745	119.47284						0.41	0	0	0	0.00	0	0.0000
78	SUTT 150 kV Punagaya-Tanjung Bunga	78	-5.46421	119.47250						0.41	0	0	0	0.00	0	0.0000
79	SUTT 150 kV Punagaya-Tanjung Bunga	79	-5.46104	119.47217						0.64	0	0	0	0.00	0	0.0000
80	SUTT 150 kV Punagaya-Tanjung Bunga	80	-5.45792	119.47181						0.41	0	0	0	0.00	0	0.0000
81	SUTT 150 kV Punagaya-Tanjung Bunga	81	-5.45480	119.47146						0.49	0	0	0	0.00	0	0.0000
82	SUTT 150 kV Punagaya-Tanjung Bunga	82	-5.45153	119.47109						0.43	0	0	0	0.00	0	0.0000
83	SUTT 150 kV Punagaya-Tanjung Bunga	83	-5.44839	119.47073						0.31	0	0	0	0.00	0	0.0000
84	SUTT 150 kV Punagaya-Tanjung Bunga	84	-5.44492	119.47044						0.29	0	0	0	0.00	0	0.0000
85	SUTT 150 kV Punagaya-Tanjung Bunga	85	-5.44189	119.47004						0.37	0	0	0	0.00	0	0.0000
86	SUTT 150 kV Punagaya-Tanjung Bunga	86	-5.43859	119.46970						0.32	0	0	0	0.00	0	0.0000
87	SUTT 150 kV Punagaya-Tanjung Bunga	87	-5.43541	119.46934						0.19	0	0	0	0.00	0	0.0000
88	SUTT 150 kV Punagaya-Tanjung Bunga	88	-5.43228	119.46903						0.21	1	1	0	-33.00	0	0.3198
89	SUTT 150 kV Punagaya-Tanjung Bunga	89	-5.42953	119.46877						0.22	0	0	0	0.00	0	0.0000
90	SUTT 150 kV Punagaya-Tanjung Bunga	90	-5.42652	119.46839						0.28	0	0	0	0.00	0	0.0000
91	SUTT 150 kV Punagaya-Tanjung Bunga	91	-5.42376	119.46652						0.25	0	0	0	0.00	0	0.0000
92	SUTT 150 kV Punagaya-Tanjung Bunga	92	-5.42106	119.46462						0.26	0	0	0	0.00	0	0.0000
93	SUTT 150 kV Punagaya-Tanjung Bunga	93	-5.41846	119.46285						0.34	0	0	0	0.00	0	0.0000
94	SUTT 150 kV Punagaya-Tanjung Bunga	94	-5.41514	119.46266						0.38	0	0	0	0.00	0	0.0000
95	SUTT 150 kV Punagaya-Tanjung Bunga	95	-5.41139	119.46245						0.60	0	0	0	0.00	0	0.0000
96	SUTT 150 kV Punagaya-Tanjung Bunga	96	-5.40850	119.46287						0.51	0	0	0	0.00	0	0.0000
97	SUTT 150 kV Punagaya-Tanjung Bunga	97	-5.40547	119.46328						0.17	0	0	0	0.00	0	0.0000
98	SUTT 150 kV Punagaya-Tanjung Bunga	98	-5.40222	119.46377						0.41	0	0	0	0.00	0	0.0000
99	SUTT 150 kV Punagaya-Tanjung Bunga	99	-5.39915	119.46423						0.25	0	0	0	0.00	0	0.0000
100	SUTT 150 kV Punagaya-Tanjung Bunga	100	-5.39586	119.46473						0.30	0	0	0	0.00	0	0.0000
101	SUTT 150 kV Punagaya-Tanjung Bunga	101	-5.39272	119.46512						0.21	0	0	0	0.00	0	0.0000
102	SUTT 150 kV Punagaya-Tanjung Bunga	102	-5.38959	119.46403						0.55	0	0	0	0.00	0	0.0000
103	SUTT 150 kV Punagaya-Tanjung Bunga	103	-5.38662	119.46293				ada	8	0.19	0	0	0	0.00	0	0.0000
104	SUTT 150 kV Punagaya-Tanjung Bunga	104	-5.38369	119.46187				ada	8	0.52	0	0	0	0.00	0	0.0000
105	SUTT 150 kV Punagaya-Tanjung Bunga	105	-5.38210	119.45928						0.45	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	SUTT 150 kV Punagaya-Tanjung Bunga	106	-5.38034	119.45648		ada			10	0.62	0	0	0	0.00	0	0.0000
107	SUTT 150 kV Punagaya-Tanjung Bunga	107	-5.37891	119.45419		ada			10	1.03	0	0	0	0.00	0	0.0000
108	SUTT 150 kV Punagaya-Tanjung Bunga	108	-5.37697	119.45109		ada			10	0.38	0	0	0	0.00	0	0.0000
109	SUTT 150 kV Punagaya-Tanjung Bunga	109	-5.37489	119.44792		ada			10	1.65	0	0	0	0.00	0	0.0000
110	SUTT 150 kV Punagaya-Tanjung Bunga	110	-5.37321	119.44480		ada			10	1.45	0	0	0	0.00	0	0.0000
111	SUTT 150 kV Punagaya-Tanjung Bunga	111	-5.37160	119.44242						0.46	0	0	0	0.00	0	0.0000
112	SUTT 150 kV Punagaya-Tanjung Bunga	112	-5.36865	119.44113						0.65	0	0	0	0.00	0	0.0000
113	SUTT 150 kV Punagaya-Tanjung Bunga	113	-5.36560	119.43980						0.35	0	0	0	0.00	0	0.0000
114	SUTT 150 kV Punagaya-Tanjung Bunga	114	-5.36261	119.43848						0.27	0	0	0	0.00	0	0.0000
115	SUTT 150 kV Punagaya-Tanjung Bunga	115	-5.35954	119.43726						0.75	0	0	0	0.00	0	0.0000
116	SUTT 150 kV Punagaya-Tanjung Bunga	116	-5.35674	119.43620						0.81	0	0	0	0.00	0	0.0000
117	SUTT 150 kV Punagaya-Tanjung Bunga	117	-5.35377	119.43492						0.85	0	0	0	0.00	0	0.0000
118	SUTT 150 kV Punagaya-Tanjung Bunga	118	-5.35120	119.43380						2.20	0	0	0	0.00	0	0.0000
119	SUTT 150 kV Punagaya-Tanjung Bunga	119	-5.34804	119.43329						0.35	0	0	0	0.00	0	0.0000
120	SUTT 150 kV Punagaya-Tanjung Bunga	120	-5.34493	119.43273						0.12	0	0	0	0.00	0	0.0000
121	SUTT 150 kV Punagaya-Tanjung Bunga	121	-5.34169	119.43210						0.13	0	0	0	0.00	0	0.0000
122	SUTT 150 kV Punagaya-Tanjung Bunga	122	-5.33861	119.43156						0.10	0	0	0	0.00	0	0.0000
123	SUTT 150 kV Punagaya-Tanjung Bunga	123	-5.33550	119.43103						0.07	0	0	0	0.00	0	0.0000
124	SUTT 150 kV Punagaya-Tanjung Bunga	124	-5.33349	119.42848						0.17	0	0	0	0.00	0	0.0000
125	SUTT 150 kV Punagaya-Tanjung Bunga	125	-5.33154	119.42600						0.06	0	0	0	0.00	0	0.0000
126	SUTT 150 kV Punagaya-Tanjung Bunga	126	-5.32954	119.42357						0.14	0	0	0	0.00	0	0.0000
127	SUTT 150 kV Punagaya-Tanjung Bunga	127	-5.32771	119.42073						0.29	0	0	0	0.00	0	0.0000
128	SUTT 150 kV Punagaya-Tanjung Bunga	128	-5.32559	119.41865						0.14	0	0	0	0.00	0	0.0000
129	SUTT 150 kV Punagaya-Tanjung Bunga	129	-5.32333	119.41650						0.19	0	0	0	0.00	0	0.0000
130	SUTT 150 kV Punagaya-Tanjung Bunga	130	-5.32077	119.41469						0.08	0	0	0	0.00	0	0.0000
131	SUTT 150 kV Punagaya-Tanjung Bunga	131	-5.31808	119.41279						0.03	0	0	0	0	0	0
132	SUTT 150 kV Punagaya-Tanjung Bunga	132	-5.31586	119.41131						0.08	0	0	0	0	0	0
133	SUTT 150 kV Punagaya-Tanjung Bunga	133	-5.31323	119.40955						0.16	0	0	0	0	0	0
134	SUTT 150 kV Punagaya-Tanjung Bunga	134	-5.31057	119.40775						0.24	0	0	0	0	0	0
135	SUTT 150 kV Punagaya-Tanjung Bunga	135	-5.30792	119.40599						0.14	0	0	0	0	0	0
136	SUTT 150 kV Punagaya-Tanjung Bunga	136	-5.30513	119.40635						0.07	0	0	0	0	0	0
137	SUTT 150 kV Punagaya-Tanjung Bunga	137	-5.30219	119.40668						0.1	0	0	0	0	0	0
138	SUTT 150 kV Punagaya-Tanjung Bunga	138	-5.29887	119.40712						0.28	0	0	0	0	0	0
139	SUTT 150 kV Punagaya-Tanjung Bunga	139	-5.29572	119.4074						0.25	0	0	0	0	0	0
140	SUTT 150 kV Punagaya-Tanjung Bunga	140	-5.29287	119.40614						0.26	0	0	0	0	0	0
141	SUTT 150 kV Punagaya-Tanjung Bunga	141	-5.29003	119.40489						0.33	0	0	0	0	0	0

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	SUTT 150 kV Punagaya-Tanjung Bunga	142	-5.28718	119.40346						0.25	0	0	0	0	0	0
143	SUTT 150 kV Punagaya-Tanjung Bunga	143	-5.28423	119.402						0.33	0	0	0	0	0	0
144	SUTT 150 kV Punagaya-Tanjung Bunga	144	-5.28135	119.40067						0.26	0	0	0	0	0	0
145	SUTT 150 kV Punagaya-Tanjung Bunga	145	-5.27853	119.39933						0.01	0	0	0	0	0	0
146	SUTT 150 kV Punagaya-Tanjung Bunga	146	-5.27571	119.39798						0.29	0	0	0	0	0	0
147	SUTT 150 kV Punagaya-Tanjung Bunga	147	-5.27273	119.39661						0.33	0	0	0	0	0	0
148	SUTT 150 kV Punagaya-Tanjung Bunga	148	-5.26952	119.39695						0.01	0	0	0	0	0	0
149	SUTT 150 kV Punagaya-Tanjung Bunga	149	-5.26647	119.39733						0.19	0	0	0	0	0	0
150	SUTT 150 kV Punagaya-Tanjung Bunga	150	-5.26343	119.39772						0.55	1	1	0	-36	0	0.31977508
151	SUTT 150 kV Punagaya-Tanjung Bunga	151	-5.26056	119.39809						0.29	1	1	0	-36	0	0.31977508
152	SUTT 150 kV Punagaya-Tanjung Bunga	152	-5.25734	119.39752						0.19	0	0	0	0	0	0
153	SUTT 150 kV Punagaya-Tanjung Bunga	153	-5.25418	119.397						0.2	0	0	0	0	0	0
154	SUTT 150 kV Punagaya-Tanjung Bunga	154	-5.25098	119.39646				ada	8	0.01	0	0	0	0	0	0
155	SUTT 150 kV Punagaya-Tanjung Bunga	155	-5.24812	119.39597						0.02	0	0	0	0	0	0
156	SUTT 150 kV Punagaya-Tanjung Bunga	156	-5.2448	119.39548				ada	9	0.28	0	0	0	0	0	0
157	SUTT 150 kV Punagaya-Tanjung Bunga	157	-5.24169	119.39586				ada	9	0.25	0	0	0	0	0	0
158	SUTT 150 kV Punagaya-Tanjung Bunga	158	-5.23853	119.39625						0.05	0	0	0	0	0	0
159	SUTT 150 kV Punagaya-Tanjung Bunga	159	-5.23536	119.3966						0.28	0	0	0	0	0	0
160	SUTT 150 kV Punagaya-Tanjung Bunga	160	-5.23235	119.39698						0.29	0	0	0	0	0	0
161	SUTT 150 kV Punagaya-Tanjung Bunga	161	-5.22867	119.39741						0.27	0	0	0	0	0	0
162	SUTT 150 kV Punagaya-Tanjung Bunga	162	-5.22566	119.39772						0.1	0	0	0	0	0	0
163	SUTT 150 kV Punagaya-Tanjung Bunga	163	-5.22354	119.39798						0.2	0	0	0	0	0	0
164	SUTT 150 kV Punagaya-Tanjung Bunga	164	-5.22072	119.39828						0.11	0	0	0	0	0	0
165	SUTT 150 kV Punagaya-Tanjung Bunga	165	-5.21822	119.39878						0.01	0	0	0	0	0	0
166	SUTT 150 kV Punagaya-Tanjung Bunga	166	-5.21821	119.39903						0.26	0	0	0	0	0	0
167	SUTT 150 kV Punagaya-Tanjung Bunga	167	-5.21806	119.39944				ada	9	0.19	0	0	0	0	0	0
168	SUTT 150 kV Punagaya-Tanjung Bunga	168	-5.2157	119.39987				ada	9	0.39	0	0	0	0	0	0
169	SUTT 150 kV Punagaya-Tanjung Bunga	169	-5.21365	119.39965						0.19	0	0	0	0	0	0
170	SUTT 150 kV Punagaya-Tanjung Bunga	170	-5.21116	119.39911						0.29	0	0	0	0	0	0
171	SUTT 150 kV Punagaya-Tanjung Bunga	171	-5.20825	119.39923						0.29	0	0	0	0	0	0
172	SUTT 150 kV Punagaya-Tanjung Bunga	172	-5.20649	119.3992						0.15	0	0	0	0	0	0
173	SUTT 150 kV Punagaya-Tanjung Bunga	173	-5.20309	119.39956						0.14	0	0	0	0	0	0
174	SUTT 150 kV Punagaya-Tanjung Bunga	174	-5.20168	119.39797						0.29	0	0	0	0	0	0
175	SUTT 150 kV Punagaya-Tanjung Bunga	175	-5.19943	119.39759						0.11	0	0	0	0	0	0
176	SUTT 150 kV Punagaya-Tanjung Bunga	177	-5.19478	119.39625						0.17	0	0	0	0	0	0
177	SUTT 150 kV Punagaya-Tanjung Bunga	178	-5.19024	119.39603						0.28	0	0	0	0	0	0

Lampiran 19 Data Eksisting Transmisi Sengkang – Sidrap

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Sengkang - Sidrap	1	-4.17509	120.07281						0.05	3	2	1	-40.50	23	0.9593
2	SUTT 150 kV Sengkang - Sidrap	2	-4.17257	120.07221							3	2	1	-40.50	23	0.9593
3	SUTT 150 kV Sengkang - Sidrap	3	-4.16915	120.07137						0.13	3	2	1	-26.50	23	0.9593
4	SUTT 150 kV Sengkang - Sidrap	4	-4.16613	120.07150						0.11	3	2	1	-26.50	23	0.9593
5	SUTT 150 kV Sengkang - Sidrap	5	-4.16246	120.07165						0.083	1	0	1	0.00	23	0.3198
6	SUTT 150 kV Sengkang - Sidrap	6	-4.15964	120.07173						0.24	0	0	0	0.00	0	0.0000
7	SUTT 150 kV Sengkang - Sidrap	7	-4.15640	120.07239						0.317	0	0	0	0.00	0	0.0000
8	SUTT 150 kV Sengkang - Sidrap	8	-4.15331	120.07304						0.41	1	0	1	0.00	80	0.3198
9	SUTT 150 kV Sengkang - Sidrap	9	-4.15010	120.07369						0.11	3	2	1	-39.00	80	0.9593
10	SUTT 150 kV Sengkang - Sidrap	10	-4.14670	120.07441						0.26	5	4	1	-40.00	80	1.5989
11	SUTT 150 kV Sengkang - Sidrap	11	-4.14372	120.07502						0.15	6	5	1	-39.80	80	1.9187
12	SUTT 150 kV Sengkang - Sidrap	12	-4.14072	120.07562						0.27	7	6	1	-34.67	80	2.2384
13	SUTT 150 kV Sengkang - Sidrap	13	-4.13741	120.07629						0	6	6	0	-34.67	0	1.9187
14	SUTT 150 kV Sengkang - Sidrap	14	-4.13419	120.07694							3	3	0	-32.00	0	0.9593
15	SUTT 150 kV Sengkang - Sidrap	15	-4.13126	120.07754							4	4	0	-24.00	0	1.2791
16	SUTT 150 kV Sengkang - Sidrap	16	-4.12787	120.07825							4	4	0	-30.00	0	1.2791
17	SUTT 150 kV Sengkang - Sidrap	17	-4.12464	120.07886						0.18	5	5	0	-39.40	0	1.5989
18	SUTT 150 kV Sengkang - Sidrap	18	-4.12186	120.07758						0.06	5	5	0	-39.40	0	1.5989
19	SUTT 150 kV Sengkang - Sidrap	19	-4.11880	120.07607						0.15	4	4	0	-44.00	0	1.2791
20	SUTT 150 kV Sengkang - Sidrap	20	-4.11759	120.07390						0.20	4	4	0	-44.00	0	1.2791
21	SUTT 150 kV Sengkang - Sidrap	21	-4.11609	120.07089						0.09	4	4	0	-54.75	0	1.2791
22	SUTT 150 kV Sengkang - Sidrap	22	-4.11489	120.06843						0.51	3	3	0	-62.67	0	0.9593
23	SUTT 150 kV Sengkang - Sidrap	23	-4.11331	120.06534						0.56	2	1	1	-61.00	20	0.6396
24	SUTT 150 kV Sengkang - Sidrap	24	-4.11200	120.06269						0.12	3	2	1	-40.00	20	0.9593
25	SUTT 150 kV Sengkang - Sidrap	25	-4.11059	120.05981		0.17				0.31	4	3	1	-36.00	20	1.2791
26	SUTT 150 kV Sengkang - Sidrap	26	-4.10914	120.05691						0.11	4	3	1	-36.00	43	1.2791
27	SUTT 150 kV Sengkang - Sidrap	27	-4.10790	120.05455						0.27	3	2	1	-23.50	43	0.9593
28	SUTT 150 kV Sengkang - Sidrap	28	-4.10653	120.05178						0.09	3	2	1	-23.50	43	0.9593
29	SUTT 150 kV Sengkang - Sidrap	29	-4.10508	120.04868						0.15	2	2	0	-23.50	0	0.6396
30	SUTT 150 kV Sengkang - Sidrap	30	-4.10373	120.04600						0.05	1	1	0	-28.00	0	0.3198
31	SUTT 150 kV Sengkang - Sidrap	31	-4.10231	120.04315						0.07	0	0	0	0.00	0	0.0000
32	SUTT 150 kV Sengkang - Sidrap	32	-4.09949	120.04165						0.11	1	1	0	-119.00	0	0.3198
33	SUTT 150 kV Sengkang - Sidrap	33	-4.09569	120.03953						1.08	1	1	0	-119.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Sengkang - Sidrap	34	-4.09288	120.03811						0.12	2	2	0	-84.00	0	0.6396
35	SUTT 150 kV Sengkang - Sidrap	35	-4.09032	120.03710						0.14	3	3	0	-62.67	0	0.9593
36	SUTT 150 kV Sengkang - Sidrap	36	-4.08806	120.03612						0.08	4	3	1	-62.67	71	1.2791
37	SUTT 150 kV Sengkang - Sidrap	37	-4.08508	120.03483						0.10	4	2	2	-34.50	56	1.2791
38	SUTT 150 kV Sengkang - Sidrap	38	-4.08165	120.03350						0.33	3	2	1	-34.50	41	0.9593
39	SUTT 150 kV Sengkang - Sidrap	39	-4.07872	120.03356						0.26	2	1	1	-20.00	41	0.6396
40	SUTT 150 kV Sengkang - Sidrap	40	-4.07530	120.03359						0.41	1	0	1	0.00	41	0.3198
41	SUTT 150 kV Sengkang - Sidrap	41	-4.07158	120.03379						0.44	1	0	1	0.00	41	0.3198
42	SUTT 150 kV Sengkang - Sidrap	42	-4.06845	120.03390						0.19	1	0	1	0.00	41	0.3198
43	SUTT 150 kV Sengkang - Sidrap	43	-4.06521	120.03398		0.27				0.19	0	0	0	0.00	0	0.0000
44	SUTT 150 kV Sengkang - Sidrap	44	-4.06174	120.03476						0.23	2	1	1	-32.00	31	0.6396
45	SUTT 150 kV Sengkang - Sidrap	45	-4.05906	120.03531						0.28	2	1	1	-32.00	31	0.6396
46	SUTT 150 kV Sengkang - Sidrap	46	-4.05619	120.03600						0.11	2	1	1	-32.00	31	0.6396
47	SUTT 150 kV Sengkang - Sidrap	47	-4.05322	120.03748						0.18	3	2	1	-23.00	31	0.9593
48	SUTT 150 kV Sengkang - Sidrap	48	-4.05008	120.03900						0.19	2	1	1	-14.00	31	0.6396
49	SUTT 150 kV Sengkang - Sidrap	49	-4.04725	120.04038						0.21	1	1	0	-23.00	0	0.3198
50	SUTT 150 kV Sengkang - Sidrap	50	-4.04439	120.04102						0.56	2	2	0	-88.00	0	0.6396
51	SUTT 150 kV Sengkang - Sidrap	51	-4.04161	120.04168						0.08	2	2	0	-88.00	0	0.6396
52	SUTT 150 kV Sengkang - Sidrap	52	-4.03875	120.04238						0.14	2	2	0	-88.00	0	0.6396
53	SUTT 150 kV Sengkang - Sidrap	53	-4.03546	120.04316						0.22	1	1	0	-23.00	0	0.3198
54	SUTT 150 kV Sengkang - Sidrap	54	-4.03241	120.04391						0.19	1	1	0	-23.00	0	0.3198
55	SUTT 150 kV Sengkang - Sidrap	55	-4.02991	120.04486						0.19	1	1	0	-9.00	0	0.3198
56	SUTT 150 kV Sengkang - Sidrap	56	-4.02660	120.04599						0.16	3	3	0	-21.67	0	0.9593
57	SUTT 150 kV Sengkang - Sidrap	57	-4.02353	120.04705						0.11	2	2	0	-7.00	0	0.6396
58	SUTT 150 kV Sengkang - Sidrap	58	-4.02062	120.04805						0.44	2	2	0	-17.50	0	0.6396
59	SUTT 150 kV Sengkang - Sidrap	59	-4.01741	120.04921						0.19	1	1	0	-9.00	0	0.3198
60	SUTT 150 kV Sengkang - Sidrap	60	-4.01495	120.05000						0.32	0	0	0	0.00	0	0.0000
61	SUTT 150 kV Sengkang - Sidrap	61	-4.01200	120.05095						0.14	0	0	0	0.00	0	0.0000
62	SUTT 150 kV Sengkang - Sidrap	62	-4.00915	120.05184						0.30	0	0	0	0.00	0	0.0000
63	SUTT 150 kV Sengkang - Sidrap	63	-4.00586	120.05281						0.32	0	0	0	0.00	0	0.0000
64	SUTT 150 kV Sengkang - Sidrap	64	-4.00352	120.05354						0.50	3	2	1	-53.00	49	0.9593
65	SUTT 150 kV Sengkang - Sidrap	65	-4.00070	120.05442						0.16	3	2	1	-53.00	49	0.9593
66	SUTT 150 kV Sengkang - Sidrap	66	-3.99765	120.05539						0.17	3	2	1	-53.00	37	0.9593
67	SUTT 150 kV Sengkang - Sidrap	67	-3.99430	120.05635						0.16	4	3	1	-52.67	37	1.2791
68	SUTT 150 kV Sengkang - Sidrap	68	-3.99129	120.05726						0.09	3	2	1	-49.00	37	0.9593
69	SUTT 150 kV Sengkang - Sidrap	69	-3.98860	120.05802						0.26	2	1	1	-52.00	37	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Sengkang - Sidrap	70	-3.98572	120.05882						0.41	2	1	1	-52.00	37	0.6396
71	SUTT 150 kV Sengkang - Sidrap	71	-3.98269	120.05974						0.94	2	2	0	-37.00	0	0.6396
72	SUTT 150 kV Sengkang - Sidrap	72	-3.98001	120.06053						0.27	3	2	1	-37.00	29	0.9593
73	SUTT 150 kV Sengkang - Sidrap	73	-3.97756	120.06127						0.24	2	1	1	-22.00	29	0.6396
74	SUTT 150 kV Sengkang - Sidrap	74	-3.97441	120.06053						0.31	3	2	1	-44.00	29	0.9593
75	SUTT 150 kV Sengkang - Sidrap	75	-3.97112	120.05966						0.4	3	2	1	-44.00	29	0.9593
76	SUTT 150 kV Sengkang - Sidrap	76	-3.96819	120.05899						1.22	3	2	1	-44.00	29	0.9593
77	SUTT 150 kV Sengkang - Sidrap	77	-3.96565	120.05731						0.44	4	2	2	-44.00	23.5	1.2791
78	SUTT 150 kV Sengkang - Sidrap	78	-3.96309	120.05566						0.43	3	2	1	-44.00	18	0.9593
79	SUTT 150 kV Sengkang - Sidrap	79	-3.96028	120.05386						0.05	3	2	1	-63.50	18	0.9593
80	SUTT 150 kV Sengkang - Sidrap	80	-3.95765	120.05221						0.26	2	2	0	-63.50	0	0.6396
81	SUTT 150 kV Sengkang - Sidrap	81	-3.95492	120.05046						0.33	2	2	0	-148.00	0	0.6396
82	SUTT 150 kV Sengkang - Sidrap	82	-3.95367	120.04761						1.02	4	4	0	-94.75	0	1.2791
83	SUTT 150 kV Sengkang - Sidrap	83	-3.95258	120.04491						0.80	6	6	0	-75.33	0	1.9187
84	SUTT 150 kV Sengkang - Sidrap	84	-3.95138	120.04195						0.40	6	6	0	-60.17	0	1.9187
85	SUTT 150 kV Sengkang - Sidrap	85	-3.95020	120.03912						0.61	5	4	1	-28.75	39	1.5989
86	SUTT 150 kV Sengkang - Sidrap	86	-3.94892	120.03592						0.81	5	4	1	-28.75	39	1.5989
87	SUTT 150 kV Sengkang - Sidrap	87	-3.94768	120.03293						0.31	3	2	1	-20.50	39	0.9593
88	SUTT 150 kV Sengkang - Sidrap	88	-3.94639	120.02979						0.21	3	2	1	-20.50	39	0.9593
89	SUTT 150 kV Sengkang - Sidrap	89	-3.94516	120.02672						0.37	2	1	1	-27.00	39	0.6396
90	SUTT 150 kV Sengkang - Sidrap	90	-3.94391	120.02366						0.25	5	5	0	-27.40	0	1.5989
91	SUTT 150 kV Sengkang - Sidrap	91	-3.94272	120.02072						0.26	7	7	0	-32.71	0	2.2384
92	SUTT 150 kV Sengkang - Sidrap	92	-3.94159	120.01789						0.26	7	7	0	-32.71	0	2.2384
93	SUTT 150 kV Sengkang - Sidrap	93	-3.94033	120.01478						0.56	7	7	0	-35.86	0	2.2384
94	SUTT 150 kV Sengkang - Sidrap	94	-3.93919	120.01200						0.54	7	7	0	-36.57	0	2.2384
95	SUTT 150 kV Sengkang - Sidrap	95	-3.93857	120.00913						0.68	4	4	0	-45.75	0	1.2791
96	SUTT 150 kV Sengkang - Sidrap	96	-3.93800	120.00621						0.34	5	5	0	-51.00	0	1.5989
97	SUTT 150 kV Sengkang - Sidrap	97	-3.93741	120.00332						0.88	5	5	0	-44.20	0	1.5989
98	SUTT 150 kV Sengkang - Sidrap	98	-3.93681	120.00042						0.39	8	8	0	-44.25	0	2.5582
99	SUTT 150 kV Sengkang - Sidrap	99	-3.93629	119.99764						0.47	7	7	0	-43.57	0	2.2384
100	SUTT 150 kV Sengkang - Sidrap	100	-3.93577	119.99495						0.72	6	6	0	-46.17	0	1.9187
101	SUTT 150 kV Sengkang - Sidrap	101	-3.93589	119.99167						0.22	4	4	0	-38.00	0	1.2791
102	SUTT 150 kV Sengkang - Sidrap	102	-3.93609	119.98855						0.53	3	3	0	-29.00	0	0.9593
103	SUTT 150 kV Sengkang - Sidrap	103	-3.93625	119.98523						0.27	2	2	0	-47.50	0	0.6396
104	SUTT 150 kV Sengkang - Sidrap	104	-3.93641	119.98253						0.43	2	2	0	-46.50	0	0.6396
105	SUTT 150 kV Sengkang - Sidrap	105	-3.93656	119.97962						0.43	3	3	0	-47.67	0	0.9593

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	SUTT 150 kV Sengkang - Sidrap	106	-3.93674	119.97652						0.49	3	3	0	-47.67	0	0.9593
107	SUTT 150 kV Sengkang - Sidrap	107	-3.93691	119.97331						0.27	3	3	0	-34.67	0	0.9593
108	SUTT 150 kV Sengkang - Sidrap	108	-3.93710	119.97013						0.26	2	2	0	-27.50	0	0.6396
109	SUTT 150 kV Sengkang - Sidrap	109	-3.93727	119.96700						0.37	2	2	0	-27.50	0	0.6396
110	SUTT 150 kV Sengkang - Sidrap	110	-3.93744	119.96383						0.54	1	1	0	-5.00	0	0.3198
111	SUTT 150 kV Sengkang - Sidrap	111	-3.93765	119.96070						0.54	2	2	0	-34.50	0	0.6396
112	SUTT 150 kV Sengkang - Sidrap	112	-3.93785	119.95714						0.79	3	3	0	-37.00	0	0.9593
113	SUTT 150 kV Sengkang - Sidrap	113	-3.93802	119.95403						0.45	3	3	0	-37.00	0	0.9593
114	SUTT 150 kV Sengkang - Sidrap	114	-3.93819	119.95112						0.22	5	5	0	-30.40	0	1.5989
115	SUTT 150 kV Sengkang - Sidrap	115	-3.93838	119.94797						0.16	7	7	0	-33.86	0	2.2384
116	SUTT 150 kV Sengkang - Sidrap	116	-3.93859	119.94484						0.12	6	6	0	-38.00	0	1.9187
117	SUTT 150 kV Sengkang - Sidrap	117	-3.93877	119.94174						0.09	7	7	0	-36.29	0	2.2384
118	SUTT 150 kV Sengkang - Sidrap	118	-3.93897	119.93871						0.30	5	5	0	-22.80	0	1.5989
119	SUTT 150 kV Sengkang - Sidrap	119	-3.93916	119.93526						0.04	6	6	0	-29.67	0	1.9187
120	SUTT 150 kV Sengkang - Sidrap	120	-3.93971	119.93220						0.19	10	10	0	-27.20	0	3.1978
121	SUTT 150 kV Sengkang - Sidrap	121	-3.94031	119.92914						0.18	11	11	0	-25.55	0	3.5175
122	SUTT 150 kV Sengkang - Sidrap	122	-3.94087	119.92600						0.39	8	8	0	-24.00	0	2.5582
123	SUTT 150 kV Sengkang - Sidrap	123	-3.94144	119.92285						0.04	8	8	0	-23.75	0	2.5582
124	SUTT 150 kV Sengkang - Sidrap	124	-3.94206	119.91967						0.39	6	6	0	-18.33	0	1.9187
125	SUTT 150 kV Sengkang - Sidrap	125	-3.94265	119.91660						0.20	5	4	1	-11.50	55	1.5989
126	SUTT 150 kV Sengkang - Sidrap	126	-3.94332	119.91310						0.16	5	4	1	-11.75	55	1.5989
127	SUTT 150 kV Sengkang - Sidrap	127	-3.94387	119.91001						0.44	7	6	1	-14.33	55	2.2384
128	SUTT 150 kV Sengkang - Sidrap	128	-3.94439	119.90684						0.22	5	4	1	-15.00	55	1.5989
129	SUTT 150 kV Sengkang - Sidrap	129	-3.94495	119.90376						0.82	6	5	1	-16.80	55	1.9187
130	SUTT 150 kV Sengkang - Sidrap	130	-3.94534	119.90069						0.50	8	8	0	-30.13	0	2.5582
131	SUTT 150 kV Sengkang - Sidrap	131	-3.9458738	119.8975162						0.1	6	6	0	-20	0	1.9186505
132	SUTT 150 kV Sengkang - Sidrap	132	-3.94648809	119.8946701						0.4	4	4	0	-20.5	0	1.27910033
133	SUTT 150 kV Sengkang - Sidrap	133	-3.9468681	119.8917534						0.04	2	2	0	-30	0	0.63955017
134	SUTT 150 kV Sengkang - Sidrap	134	-3.94739285	119.8888902						0.46	4	4	0	-25	0	1.27910033
135	SUTT 150 kV Sengkang - Sidrap	135	-3.94691455	119.8857453						0.1	6	6	0	-23.17	0	1.9186505
136	SUTT 150 kV Sengkang - Sidrap	136	-3.94633075	119.8825186						0.09	9	9	0	-23.33	0	2.87797575
137	SUTT 150 kV Sengkang - Sidrap	137	-3.94576918	119.8790797						0.59	7	7	0	-22.57	0	2.23842558
138	SUTT 150 kV Sengkang - Sidrap	138	-3.94525097	119.8759683						0.04	7	7	0	-21.86	0	2.23842558
139	SUTT 150 kV Sengkang - Sidrap	139	-3.94469775	119.8728403						0.12	5	5	0	-79.6	0	1.59887542
140	SUTT 150 kV Sengkang - Sidrap	140	-3.94419852	119.869773						0.22	4	4	0	-103.75	0	1.27910033
141	SUTT 150 kV Sengkang - Sidrap	141	-3.94377927	119.8672265						0.09	6	5	1	-82.4	14	1.9186505

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	SUTT 150 kV Sengkang - Sidrap	142	-3.94318636	119.8636352						0.12	5	4	1	-26	14	1.59887542
143	SUTT 150 kV Sengkang - Sidrap	143	-3.94263895	119.860424						0.19	5	4	1	-24.25	14	1.59887542
144	SUTT 150 kV Sengkang - Sidrap	144	-3.94192504	119.85684						0.16	6	5	1	-23.2	14	1.9186505
145	SUTT 150 kV Sengkang - Sidrap	145	-3.94149669	119.8539708						0.14	9	7	2	-14.57	46	2.87797575
146	SUTT 150 kV Sengkang - Sidrap	146	-3.94114464	119.8499841						0.25	6	5	1	-17	78	1.9186505
147	SUTT 150 kV Sengkang - Sidrap	147	-3.94079689	119.8470578						0.16	6	5	1	-17	78	1.9186505
148	SUTT 150 kV Sengkang - Sidrap	148	-3.94043501	119.8436711						0.16	5	4	1	-18.75	78	1.59887542
149	SUTT 150 kV Sengkang - Sidrap	149	-3.94015341	119.8410466						0.13	2	2	0	-17.5	0	0.63955017
150	SUTT 150 kV Sengkang - Sidrap	150	-3.93966872	119.8371025						0.11	0	0	0	0	0	0
151	SUTT 150 kV Sengkang - Sidrap	151	-3.93929121	119.8337992						0.17	3	1	2	-157	78	0.95932525
152	SUTT 150 kV Sengkang - Sidrap	152	-3.93894858	119.83088						0.25	2	1	1	-157	77	0.63955017
153	SUTT 150 kV Sengkang - Sidrap	153	-3.93860125	119.8276737						0.21	3	2	1	-118.5	77	0.95932525
154	SUTT 150 kV Sengkang - Sidrap	154	-3.93836504	119.824714						0.31	3	2	1	-118.5	77	0.95932525
155	SUTT 150 kV Sengkang - Sidrap	155	-3.93878807	119.8213115						0.22	2	2	0	-118.5	0	0.63955017
156	SUTT 150 kV Sengkang - Sidrap	156	-3.93929848	119.8181542						0.18	1	1	0	-80	0	0.31977508
157	SUTT 150 kV Sengkang - Sidrap	157	-3.9398549	119.8148266						0.2	1	1	0	-27	0	0.31977508
158	SUTT 150 kV Sengkang - Sidrap	158	-3.94046048	119.8111911						0.34	1	1	0	-27	0	0.31977508
159	SUTT 150 kV Sengkang - Sidrap	159	-3.94026209	119.808365						0.29	1	1	0	-27	0	0.31977508
160	SUTT 150 kV Sengkang - Sidrap	160	-3.94005003	119.8051681						0.13	1	1	0	-27	0	0.31977508
161	SUTT 150 kV Sengkang - Sidrap	161	-3.93985066	119.8021977						0.16	0	0	0	0	0	0
162	SUTT 150 kV Sengkang - Sidrap	162	-3.93968295	119.7996338						0.16	0	0	0	0	0	0
163	SUTT 150 kV Sengkang - Sidrap	163	-3.9395188	119.7967167						0.22	0	0	0	0	0	0
164	SUTT 150 kV Sengkang - Sidrap	164	-3.939338	119.7936377						0.12	0	0	0	0	0	0
165	SUTT 150 kV Sengkang - Sidrap	165	-3.93919557	119.7904251						0.4	0	0	0	0	0	0
166	SUTT 150 kV Sengkang - Sidrap	166	-3.93893746	119.7871989						0.14	1	1	0	-39	0	0.31977508
167	SUTT 150 kV Sengkang - Sidrap	167	-3.93764404	119.7840679						0.23	1	1	0	-39	0	0.31977508
168	SUTT 150 kV Sengkang - Sidrap	168	-3.9363159	119.781175						0.08	2	2	0	-93	0	0.63955017
169	SUTT 150 kV Sengkang - Sidrap	169	-3.93438933	119.7787253						0.18	2	2	0	-93	0	0.63955017
170	SUTT 150 kV Sengkang - Sidrap	170	-3.93230623	119.7761646						0.13	2	2	0	-89.5	0	0.63955017
173	SUTT 150 kV Sengkang - Sidrap	173	-3.92623841	119.7686064						0.03	2	2	0	-55	0	0.63955017
174	SUTT 150 kV Sengkang - Sidrap	174	-3.92397325	119.7657932						0.23	3	3	0	-48.67	0	0.95932525
175	SUTT 150 kV Sengkang - Sidrap	175	-3.92229576	119.7636818						0.26	2	2	0	-57	0	0.63955017
176	SUTT 150 kV Sengkang - Sidrap	176	-3.92020896	119.7611156						0.23	3	3	0	-40.67	0	0.95932525
177	SUTT 150 kV Sengkang - Sidrap	177	-3.91833885	119.7588671						0.69	2	2	0	-22	0	0.63955017
178	SUTT 150 kV Sengkang - Sidrap	178	-3.91708708	119.7555335						0.2	1	1	0	-8	0	0.31977508
179	SUTT 150 kV Sengkang - Sidrap	179	-3.91655973	119.7533818						0.37	1	1	0	-8	0	0.31977508

Lampiran 20 Data Eksisting Transmisi Sengkang – Siwa

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	T Sengkang - Siwa #1	1	-4.17497	120.07298							3	2	1	-40.50	23	0.9593
2	T Sengkang - Siwa #2	2	-4.17288	120.07517							3	2	1	-40.50	23	0.9593
3	T Sengkang - Siwa #3	3	-4.17056	120.07786							3	2	1	-26.50	23	0.9593
4	T Sengkang - Siwa #4	4	-4.16855	120.08004							4	2	2	-26.50	50	1.2791
5	T Sengkang - Siwa #5	5	-4.16628	120.08257							3	2	1	-26.50	77	0.9593
6	T Sengkang - Siwa #6	6	-4.16431	120.08481							2	1	1	-32.00	77	0.6396
7	T Sengkang - Siwa #7	7	-4.16222	120.08707							2	1	1	-32.00	77	0.6396
8	T Sengkang - Siwa #8	8	-4.16034	120.08920							2	1	1	-32.00	77	0.6396
9	T Sengkang - Siwa #9	9	-4.15912	120.09247							0	0	0	0.00	0	0.0000
10	T Sengkang - Siwa #10	10	-4.15798	120.09561							2	2	0	-77.50	0	0.6396
11	T Sengkang - Siwa #11	11	-4.15669	120.09900							3	3	0	-77.33	0	0.9593
12	T Sengkang - Siwa #12	12	-4.15578	120.10162							3	3	0	-77.33	0	0.9593
13	T Sengkang - Siwa #13	13	-4.15477	120.10446							3	3	0	-77.33	0	0.9593
14	T Sengkang - Siwa #14	14	-4.15293	120.10694							2	2	0	-42.50	0	0.6396
15	T Sengkang - Siwa #15	15	-4.15088	120.10969							2	2	0	-56.00	0	0.6396
16	T Sengkang - Siwa #16	16	-4.14932	120.11241							2	2	0	-56.00	0	0.6396
17	T Sengkang - Siwa #17	17	-4.14787	120.11481							1	1	0	-35.00	0	0.3198
18	T Sengkang - Siwa #18	18	-4.14497	120.11593							2	2	0	-30.50	0	0.6396
19	T Sengkang - Siwa #19	19	-4.14224	120.11699							2	2	0	-30.50	0	0.6396
20	T Sengkang - Siwa #20	20	-4.13947	120.11810							1	1	0	-26.00	0	0.3198
21	T Sengkang - Siwa #21	21	-4.13710	120.11903							3	2	1	-29.50	40	0.9593
22	T Sengkang - Siwa #22	22	-4.13402	120.12033							3	2	1	-29.50	40	0.9593
23	T Sengkang - Siwa #23	23	-4.13103	120.12091							3	2	1	-56.00	40	0.9593
24	T Sengkang - Siwa #24	24	-4.12802	120.12144							3	2	1	-56.00	40	0.9593
25	T Sengkang - Siwa #25	25	-4.12460	120.12206							4	3	1	-46.67	40	1.2791
26	T Sengkang - Siwa #26	26	-4.12144	120.12267							2	1	1	-28.00	40	0.6396
27	T Sengkang - Siwa #27	27	-4.11802	120.12331							2	2	0	-41.00	0	0.6396
28	T Sengkang - Siwa #28	28	-4.11560	120.12370							2	2	0	-41.00	0	0.6396
29	T Sengkang - Siwa #29	29	-4.11271	120.12424							2	2	0	-41.00	0	0.6396
30	T Sengkang - Siwa #30	30	-4.11047	120.12463							2	2	0	-41.00	0	0.6396
31	T Sengkang - Siwa #31	31	-4.10728	120.12522							1	1	0	-54.00	0	0.3198
32	T Sengkang - Siwa #32	32	-4.10394	120.12579							2	2	0	-85.00	0	0.6396
33	T Sengkang - Siwa #33	33	-4.10065	120.12637							1	1	0	-116.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	T Sengkang - Siwa #34	34	-4.09869	120.12668							1	1	0	-116.00	0	0.3198
35	T Sengkang - Siwa #35	35	-4.09526	120.12731							2	2	0	-65.50	0	0.6396
36	T Sengkang - Siwa #36	36	-4.09225	120.12787							1	1	0	-15.00	0	0.3198
37	T Sengkang - Siwa #37	37	-4.08965	120.12899							0	0	0	0.00	0	0.0000
38	T Sengkang - Siwa #38	38	-4.08762	120.12990							1	1	0	-30.00	0	0.3198
39	T Sengkang - Siwa #39	39	-4.08449	120.13118							1	1	0	-30.00	0	0.3198
40	T Sengkang - Siwa #40	40	-4.08192	120.13227							3	2	1	-103.00	19	0.9593
41	T Sengkang - Siwa #41	41	-4.07884	120.13354							6	5	1	-54.80	19	1.9187
42	T Sengkang - Siwa #42	42	-4.07585	120.13471							7	6	1	-63.00	19	2.2384
43	T Sengkang - Siwa #43	43	-4.07296	120.13600							9	9	0	-51.78	0	2.8780
44	T Sengkang - Siwa #44	44	-4.06981	120.13739							11	10	1	-48.00	65	3.5175
45	T Sengkang - Siwa #45	45	-4.06671	120.13874							8	7	1	-35.71	65	2.5582
46	T Sengkang - Siwa #46	46	-4.06366	120.14007							8	7	1	-34.71	65	2.5582
47	T Sengkang - Siwa #47	47	-4.06108	120.14116							4	3	1	-36.33	65	1.2791
48	T Sengkang - Siwa #48	48	-4.05873	120.14247							6	5	1	-33.40	65	1.9187
49	T Sengkang - Siwa #49	49	-4.05550	120.14416							5	5	0	-33.40	0	1.5989
50	T Sengkang - Siwa #50	50	-4.05343	120.14533							7	7	0	-31.86	0	2.2384
51	T Sengkang - Siwa #51	51	-4.05037	120.14692							6	6	0	-32.33	0	1.9187
52	T Sengkang - Siwa #52	52	-4.04800	120.14820							5	5	0	-25.60	0	1.5989
53	T Sengkang - Siwa #53	53	-4.04576	120.14981							4	4	0	-23.50	0	1.2791
54	T Sengkang - Siwa #54	54	-4.04400	120.15115							3	3	0	-23.33	0	0.9593
55	T Sengkang - Siwa #55	55	-4.04225	120.15238							1	1	0	-161.00	0	0.3198
56	T Sengkang - Siwa #56	56	-4.04054	120.15371							2	2	0	-86.50	0	0.6396
57	T Sengkang - Siwa #57	57	-4.03862	120.15502							5	5	0	-60.40	0	1.5989
58	T Sengkang - Siwa #58	58	-4.03647	120.15622							6	6	0	-54.83	0	1.9187
59	T Sengkang - Siwa #59	59	-4.03365	120.15789							5	5	0	-33.60	0	1.5989
60	T Sengkang - Siwa #60	60	-4.03068	120.15960							6	6	0	-32.33	0	1.9187
61	T Sengkang - Siwa #61	61	-4.02817	120.16115							6	6	0	-40.67	0	1.9187
62	T Sengkang - Siwa #62	62	-4.02581	120.16262							6	4	2	-47.25	81	1.9187
63	T Sengkang - Siwa #63	63	-4.02273	120.16437							8	6	2	-47.00	81	2.5582
64	T Sengkang - Siwa #64	64	-4.02066	120.16687							9	7	2	-48.29	81	2.8780
65	T Sengkang - Siwa #65	65	-4.01869	120.16944							12	9	3	-61.56	67.6667	3.8373
66	T Sengkang - Siwa #66	66	-4.01672	120.17212							12	9	3	-63.78	50.6667	3.8373
67	T Sengkang - Siwa #67	67	-4.01480	120.17484							14	11	3	-52.27	50.6667	4.4769
68	T Sengkang - Siwa #68	68	-4.01295	120.17742							15	12	3	-46.58	48.6667	4.7966
69	T Sengkang - Siwa #69	69	-4.01167	120.18018		0.69					10	8	2	-54.38	52.5	3.1978

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	T Sengkang - Siwa #70	70	-4.00940	120.18262							8	6	2	-38.50	52.5	2.5582
71	T Sengkang - Siwa #71	71	-4.00725	120.18495							6	5	1	-47.20	57	1.9187
72	T Sengkang - Siwa #72	72	-4.00531	120.18703							7	5	2	-36.40	39.5	2.2384
73	T Sengkang - Siwa #73	73	-4.00305	120.18940							12	9	3	-55.11	54.6667	3.8373
74	T Sengkang - Siwa #74	74	-4.00195	120.19173							11	9	2	-69.67	57	3.5175
75	T Sengkang - Siwa #75	75	-4.00051	120.19470							11	9	2	-69.11	57	3.5175
76	T Sengkang - Siwa #76	76	-3.99905	120.19786							10	7	3	-71.29	49	3.1978
77	T Sengkang - Siwa #77	77	-3.99768	120.20083							9	7	2	-66.29	59	2.8780
78	T Sengkang - Siwa #78	78	-3.99647	120.20349							9	7	2	-29.86	59	2.8780
79	T Sengkang - Siwa #79	79	-3.99519	120.20632							13	11	2	-37.45	50.5	4.1571
80	T Sengkang - Siwa #80	80	-3.99403	120.20870							12	10	2	-37.50	50.5	3.8373
81	T Sengkang - Siwa #81	81	-3.99276	120.21169							11	9	2	-38.22	50.5	3.5175
82	T Sengkang - Siwa #82	82	-3.99133	120.21445							11	9	2	-52.11	50.5	3.5175
83	T Sengkang - Siwa #83	83	-3.98982	120.21742							10	8	2	-63.63	50.5	3.1978
84	T Sengkang - Siwa #84	84	-3.98826	120.22042							6	5	1	-59.20	33	1.9187
85	T Sengkang - Siwa #85	85	-3.98685	120.22323							7	7	0	-46.29	0	2.2384
86	T Sengkang - Siwa #86	86	-3.98532	120.22618							6	6	0	-53.67	0	1.9187
87	T Sengkang - Siwa #87	87	-3.98384	120.22903							10	10	0	-42.20	0	3.1978
88	T Sengkang - Siwa #88	88	-3.98231	120.23198							12	12	0	-41.92	0	3.8373
89	T Sengkang - Siwa #89	89	-3.98095	120.23471							8	8	0	-38.50	0	2.5582
90	T Sengkang - Siwa #90	90	-3.97952	120.23738							11	11	0	-36.27	0	3.5175
91	T Sengkang - Siwa #91	91	-3.97811	120.24012							10	10	0	-44.50	0	3.1978
92	T Sengkang - Siwa #92	92	-3.97667	120.24288							7	7	0	-49.57	0	2.2384
93	T Sengkang - Siwa #93	93	-3.97520	120.24576							8	8	0	-45.38	0	2.5582
94	T Sengkang - Siwa #94	94	-3.97353	120.24900							7	7	0	-48.71	0	2.2384
95	T Sengkang - Siwa #95	95	-3.97229	120.25098							9	8	1	-54.75	75	2.8780
96	T Sengkang - Siwa #96	96	-3.97087	120.25402							6	5	1	-65.00	75	1.9187
97	T Sengkang - Siwa #97	97	-3.96954	120.25693							11	7	4	-33.29	70.75	3.5175
98	T Sengkang - Siwa #98	98	-3.96816	120.25983							14	8	6	-36.63	63.1667	4.4769
99	T Sengkang - Siwa #99	99	-3.96568	120.26170							15	8	7	-43.38	55.8571	4.7966
100	T Sengkang - Siwa #100	100	-3.96340	120.26350							15	9	6	-46.89	51.8333	4.7966
101	T Sengkang - Siwa #101	101	-3.96056	120.26601							17	11	6	-42.09	51.8333	5.4362
102	T Sengkang - Siwa #102	102	-3.95766	120.26766							16	11	5	-53.45	49.6	5.1164
103	T Sengkang - Siwa #103	103	-3.95564	120.26948							17	14	3	-52.14	44	5.4362
104	T Sengkang - Siwa #104	104	-3.95315	120.27156							17	14	3	-48.64	44	5.4362
105	T Sengkang - Siwa #105	105	-3.95044	120.27336							18	16	2	-64.88	40	5.7560

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	T Sengkang - Siwa #106	106	-3.94863	120.27494							15	14	1	-60.93	35	4.7966
107	T Sengkang - Siwa #107	107	-3.94567	120.27699		0.44					17	15	2	-72.40	42.5	5.4362
108	T Sengkang - Siwa #108	108	-3.94344	120.27905							15	13	2	-77.31	42.5	4.7966
109	T Sengkang - Siwa #109	109	-3.94071	120.27951							16	13	3	-76.54	53.6667	5.1164
110	T Sengkang - Siwa #110	110	-3.93769	120.27992							13	11	2	-46.91	63	4.1571
111	T Sengkang - Siwa #111	111	-3.93523	120.28018							12	10	2	-45.60	63	3.8373
112	T Sengkang - Siwa #112	112	-3.93142	120.28079							13	10	3	-40.10	46	4.1571
113	T Sengkang - Siwa #113	113	-3.92779	120.28126							12	7	5	-32.57	42.4	3.8373
114	T Sengkang - Siwa #114	114	-3.92499	120.28168							13	8	5	-31.63	42.4	4.1571
115	T Sengkang - Siwa #115	115	-3.92210	120.28207							10	6	4	-43.67	34	3.1978
116	T Sengkang - Siwa #116	116	-3.91867	120.28245							9	5	4	-47.60	34	2.8780
117	T Sengkang - Siwa #117	117	-3.91550	120.28284							7	5	2	-109.80	37	2.2384
118	T Sengkang - Siwa #118	118	-3.91157	120.28336							10	7	3	-104.43	33	3.1978
119	T Sengkang - Siwa #119	119	-3.90828	120.28377							10	8	2	-67.13	33	3.1978
120	T Sengkang - Siwa #120	120	-3.90493	120.28426							10	8	2	-59.25	33	3.1978
121	T Sengkang - Siwa #121	121	-3.90190	120.28306							10	9	1	-36.33	40	3.1978
122	T Sengkang - Siwa #122	122	-3.89892	120.28259							12	11	1	-39.73	40	3.8373
123	T Sengkang - Siwa #123	123	-3.89609	120.28213							13	11	2	-41.27	43.5	4.1571
124	T Sengkang - Siwa #124	124	-3.89319	120.28177							10	9	1	-41.33	47	3.1978
125	T Sengkang - Siwa #125	125	-3.89027	120.28137							8	7	1	-52.29	47	2.5582
126	T Sengkang - Siwa #126	126	-3.88694	120.28091							8	6	2	-59.00	36	2.5582
127	T Sengkang - Siwa #127	127	-3.88403	120.28050							6	3	3	-71.67	31.6667	1.9187
128	T Sengkang - Siwa #128	128	-3.88082	120.28006							5	3	2	-63.00	25	1.5989
129	T Sengkang - Siwa #129	129	-3.87694	120.27958							7	6	1	-23.33	25	2.2384
130	T Sengkang - Siwa #130	130	-3.87372	120.28102							9	7	2	-22.14	26	2.8780
131	T Sengkang - Siwa #131	131	-3.87124864	120.2819968							8	6	2	-19.5	26	2.55820066
132	T Sengkang - Siwa #132	132	-3.86922741	120.2830318							9	7	2	-24	26	2.87797575
133	T Sengkang - Siwa #133	133	-3.86571305	120.2846439							13	12	1	-22	27	4.15707608
134	T Sengkang - Siwa #134	134	-3.86292087	120.2858326							15	14	1	-30.3571	27	4.79662625
135	T Sengkang - Siwa #135	135	-3.86139202	120.2885647							15	13	2	-44.3077	48.5	4.79662625
136	T Sengkang - Siwa #136	136	-3.85983857	120.2910059							13	12	1	-45.5833	70	4.15707608
137	T Sengkang - Siwa #137	137	-3.85841938	120.2940773							9	8	1	-54.875	70	2.87797575
138	T Sengkang - Siwa #138	138	-3.85678956	120.2969772							9	8	1	-57	70	2.87797575
139	T Sengkang - Siwa #139	139	-3.85521857	120.2999086							8	8	0	-52.25	0	2.55820066
140	T Sengkang - Siwa #140	140	-3.85367035	120.3027057							9	9	0	-27.4444	0	2.87797575
141	T Sengkang - Siwa #141	141	-3.85214143	120.3055935							9	9	0	-29.3333	0	2.87797575

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	T Sengkang - Siwa #142	142	-3.84995609	120.307967							9	8	1	-24.75	65	2.87797575
143	T Sengkang - Siwa #143	143	-3.84775428	120.3104037							11	9	2	-31.6667	72.5	3.51752591
144	T Sengkang - Siwa #144	144	-3.84563449	120.3127133							5	4	1	-43.75	65	1.59887542
145	T Sengkang - Siwa #145	145	-3.84335756	120.3150316							2	2	0	-30.5	0	0.63955017
146	T Sengkang - Siwa #146	146	-3.841224	120.317374							1	1	0	-30	0	0.31977508
147	T Sengkang - Siwa #147	147	-3.83906426	120.3197544							2	2	0	-23.5	0	0.63955017
148	T Sengkang - Siwa #148	148	-3.83686284	120.3220929							3	3	0	-22.3333	0	0.95932525
149	T Sengkang - Siwa #149	149	-3.83468234	120.324462							3	3	0	-22.3333	0	0.95932525
150	T Sengkang - Siwa #150	150	-3.83248665	120.3267984							3	3	0	-22.3333	0	0.95932525
151	T Sengkang - Siwa #151	151	-3.83065665	120.3288044							4	4	0	-27	0	1.27910033
152	T Sengkang - Siwa #152	152	-3.82715057	120.3294611							5	5	0	-27.8	0	1.59887542
153	T Sengkang - Siwa #153	153	-3.82408634	120.3299816							8	8	0	-56.25	0	2.55820066
154	T Sengkang - Siwa #154	154	-3.81834378	120.3309405												
155	T Sengkang - Siwa #155	155	-3.81474127	120.3315121							8	8	0	-56.25	0	2.55820066
156	T Sengkang - Siwa #156	156	-3.8115887	120.3320459							8	8	0	-56.25	0	2.55820066
157	T Sengkang - Siwa #157	157	-3.80832178	120.3324918							8	8	0	-53.75	0	2.55820066
158	T Sengkang - Siwa #158	158	-3.80543824	120.3330635							5	5	0	-68	0	1.59887542
159	T Sengkang - Siwa #159	159	-3.80194661	120.333576							5	5	0	-50	0	1.59887542
160	T Sengkang - Siwa #160	160	-3.79911279	120.3322011							3	3	0	-39	0	0.95932525
161	T Sengkang - Siwa #161	161	-3.79615135	120.3316917							4	4	0	-32.75	0	1.27910033
162	T Sengkang - Siwa #162	162	-3.79258087	120.3310372							5	5	0	-32	0	1.59887542
163	T Sengkang - Siwa #163	163	-3.79060659	120.3319125							6	6	0	-83	0	1.9186505
164	T Sengkang - Siwa #164	164	-3.78829057	120.3329902							8	8	0	-67.125	0	2.55820066
165	T Sengkang - Siwa #165	165	-3.78581099	120.3341163							8	8	0	-67.125	0	2.55820066
166	T Sengkang - Siwa #166	166	-3.7832474	120.3353795							7	7	0	-73	0	2.23842558
167	T Sengkang - Siwa #167	167	-3.78016133	120.3367525							7	6	1	-74	41	2.23842558
168	T Sengkang - Siwa #168	168	-3.7774077	120.3380779							4	3	1	-56.6667	41	1.27910033
169	T Sengkang - Siwa #169	169	-3.77384054	120.3396744							6	5	1	-43.2	41	1.9186505
170	T Sengkang - Siwa #170	170	-3.77061028	120.3412263							6	5	1	-43.2	41	1.9186505
171	T Sengkang - Siwa #171	171	-3.76834713	120.342911							6	5	1	-43.2	41	1.9186505
172	T Sengkang - Siwa #172	172	-3.76572182	120.3448926							4	4	0	-37	0	1.27910033
173	T Sengkang - Siwa #173	173	-3.763208	120.3467739							5	5	0	-43.2	0	1.59887542
174	T Sengkang - Siwa #174	174	-3.76058625	120.3485975							5	5	0	-38.4	0	1.59887542
175	T Sengkang - Siwa #175	175	-3.7575588	120.3509558							8	8	0	-32.625	0	2.55820066
176	T Sengkang - Siwa #176	176	-3.75464867	120.3531582							10	10	0	-42.3	0	3.19775083
177	T Sengkang - Siwa #177	177	-3.75205595	120.3550206							10	9	1	-43.3333	31	3.19775083

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
178	T Sengkang - Siwa #178	178	-3.74922663	120.3572129							8	8	0	-41.375	0	2.55820066
179	T Sengkang - Siwa #179	179	-3.74668766	120.3591114							8	8	0	-56	0	2.55820066
180	T Sengkang - Siwa #180	180	-3.74440131	120.3607597							7	7	0	-53.2857	0	2.23842558
181	T Sengkang - Siwa #181	181	-3.74185523	120.3627529							7	7	0	-53.2857	0	2.23842558
182	T Sengkang - Siwa #182	182	-3.73921552	120.3646628							4	4	0	-59.75	0	1.27910033
183	T Sengkang - Siwa #183	183	-3.7370298	120.3668516							3	3	0	-57.6667	0	0.95932525
184	T Sengkang - Siwa #184	184	-3.73508539	120.3688862							4	4	0	-49.5	0	1.27910033
185	T Sengkang - Siwa #185	185	-3.73297402	120.3710354							1	1	0	-68	0	0.31977508
186	T Sengkang - Siwa #186	186	-3.73093994	120.3730798							3	3	0	-49.3333	0	0.95932525
187	T Sengkang - Siwa #187	187	-3.72863932	120.3754387							4	4	0	-41	0	1.27910033
188	T Sengkang - Siwa #188	188	-3.72631449	120.3779949							6	6	0	-30.8333	0	1.9186505
189	T Sengkang - Siwa #189	189	-3.72414072	120.3800095							4	4	0	-12.75	0	1.27910033
190	T Sengkang - Siwa #190	190	-3.72175086	120.3825301							5	5	0	-40	0	1.59887542
191	T Sengkang - Siwa #191	191	-3.71960273	120.3847616							5	5	0	-35.2	0	1.59887542
192	T Sengkang - Siwa #192	192	-3.71770771	120.3866647							4	4	0	-20.75	0	1.27910033

Lampiran 21 Data Eksisting Transmisi Sengkang – Soppeng

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	T Sengkang-Soppeng #1	1	-4.17659	120.07370						0.24	4	2	2	40.50	34.5	1.2791
2	T Sengkang-Soppeng #2	2	-4.17864	120.07309						0.48	4	3	1	35.67	46	1.2791
3	T Sengkang-Soppeng #3	3	-4.18262	120.07162						0.27	3	2	1	43.00	46	0.9593
4	T Sengkang-Soppeng #4	4	-4.18513	120.07089						0.48	3	2	1	43.00	46	0.9593
5	T Sengkang-Soppeng #5	5	-4.18750	120.07048						0.44	3	2	1	43.00	46	0.9593
6	T Sengkang-Soppeng #6	6	-4.19052	120.06988						0.47	3	2	1	30.50	46	0.9593
7	T Sengkang-Soppeng #7	7	-4.19256	120.06746						0.44	3	3	0	58.33	0	0.9593
8	T Sengkang-Soppeng #8	8	-4.19426	120.06547						0.44	4	4	0	51.75	0	1.2791
9	T Sengkang-Soppeng #9	9	-4.19419	120.06363						0.44	4	4	0	51.75	0	1.2791
10	T Sengkang-Soppeng #10	10	-4.19411	120.06066						0.39	5	5	0	47.40	0	1.5989
11	T Sengkang-Soppeng #11	11	-4.19401	120.05802						0.25	5	5	0	47.40	0	1.5989
12	T Sengkang-Soppeng #12	12	-4.19243	120.05580						0.37	4	4	0	50.50	0	1.2791
13	T Sengkang-Soppeng #13	13	-4.19061	120.05348						0.31	3	3	0	57.00	0	0.9593
14	T Sengkang-Soppeng #14	14	-4.18903	120.05119						0.2	3	3	0	45.00	0	0.9593
15	T Sengkang-Soppeng #15	15	-4.18700	120.04844						0.17	5	4	1	35.25	31	1.5989
16	T Sengkang-Soppeng #16	16	-4.18691	120.04554						0.42	5	4	1	35.25	31	1.5989
17	T Sengkang-Soppeng #17	17	-4.18675	120.04296						0.38	3	2	1	36.00	31	0.9593
18	T Sengkang-Soppeng #18	18	-4.18668	120.03950						0.21	3	2	1	36.00	31	0.9593
19	T Sengkang-Soppeng #19	19	-4.18649	120.03540						0.24	1	0	1	0.00	31	0.3198
20	T Sengkang-Soppeng #20	20	-4.18640	120.03271						0.68	1	1	0	15.00	0	0.3198
21	T Sengkang-Soppeng #21	21	-4.18636	120.03054						0.33	2	2	0	40.50	0	0.6396
22	T Sengkang-Soppeng #22	22	-4.18613	120.02702						0.30	5	2	3	41.00	67.3333	1.5989
23	T Sengkang-Soppeng #23	23	-4.18601	120.02417						0.27	5	2	3	41.00	67.3333	1.5989
24	T Sengkang-Soppeng #24	24	-4.18954	120.02260						0.32	3	1	2	16.00	70.5	0.9593
25	T Sengkang-Soppeng #25	25	-4.19254	120.02139						0.37	2	1	1	16.00	100	0.6396
26	T Sengkang-Soppeng #26	26	-4.19516	120.02031						0.29	1	0	1	0.00	100	0.3198
27	T Sengkang-Soppeng #27	27	-4.19766	120.01914						0.28	1	0	1	0.00	100	0.3198
28	T Sengkang-Soppeng #28	28	-4.20078	120.01779						0.36	2	0	2	0.00	77	0.6396
29	T Sengkang-Soppeng #29	29	-4.20411	120.01630						0.28	1	0	1	0.00	54	0.3198
30	T Sengkang-Soppeng #30	30	-4.20726	120.01478						0.32	2	1	1	34.00	54	0.6396
31	T Sengkang-Soppeng #31	31	-4.21031	120.01508						0.32	2	1	1	34.00	54	0.6396
32	T Sengkang-Soppeng #32	32	-4.21374	120.01536						0.43	2	1	1	34.00	6	0.6396
33	T Sengkang-Soppeng #33	33	-4.21684	120.01562						0.39	2	1	1	34.00	6	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	T Sengkang-Soppeng #34	34	-4.22024	120.01590						0.27	1	0	1	0.00	6	0.3198
35	T Sengkang-Soppeng #35	35	-4.22349	120.01623						0.30	0	0	0	0.00	0	0.0000
36	T Sengkang-Soppeng #36	36	-4.22654	120.01644						0.28	1	0	1	0.00	28	0.3198
37	T Sengkang-Soppeng #37	37	-4.23022	120.01678						0.32	1	0	1	0.00	28	0.3198
38	T Sengkang-Soppeng #38	38	-4.23387	120.01711						0.32	0	0	0	0.00	0	0.0000
39	T Sengkang-Soppeng #39	39	-4.23722	120.01748						0.32	1	1	0	28.00	0	0.3198
40	T Sengkang-Soppeng #40	40	-4.24077	120.01776						0.26	1	1	0	28.00	0	0.3198
41	T Sengkang-Soppeng #41	41	-4.24394	120.01802						0.30	1	1	0	28.00	0	0.3198
42	T Sengkang-Soppeng #42	42	-4.24786	120.01835						0.31	1	0	1	0.00	54	0.3198
43	T Sengkang-Soppeng #43	43	-4.25117	120.01867						0.19	1	0	1	0.00	54	0.3198
44	T Sengkang-Soppeng #44	44	-4.25487	120.01899						0.24	1	0	1	0.00	54	0.3198
45	T Sengkang-Soppeng #45	45	-4.25765	120.01924						0.21	2	1	1	46.00	54	0.6396
46	T Sengkang-Soppeng #46	46	-4.26075	120.01951						0.22	1	1	0	46.00	0	0.3198
47	T Sengkang-Soppeng #47	47	-4.26325	120.01972						0.39	1	1	0	46.00	0	0.3198
48	T Sengkang-Soppeng #48	48	-4.26517	120.01989						0.52	1	1	0	46.00	0	0.3198
49	T Sengkang-Soppeng #49	49	-4.26855	120.01967						0.39	2	2	0	42.00	0	0.6396
50	T Sengkang-Soppeng #50	50	-4.27166	120.01940						0.31	2	2	0	42.00	0	0.6396
51	T Sengkang-Soppeng #51	51	-4.27514	120.01906						0.37	1	1	0	38.00	0	0.3198
52	T Sengkang-Soppeng #52	52	-4.27895	120.01878						0.40	1	1	0	38.00	0	0.3198
53	T Sengkang-Soppeng #53	53	-4.28265	120.01851						0.42	0	0	0	0.00	0	0.0000
54	T Sengkang-Soppeng #54	54	-4.28673	120.01819						0.27	1	1	0	32.00	0	0.3198
55	T Sengkang-Soppeng #55	55	-4.29035	120.01790						0.21	1	1	0	32.00	0	0.3198
56	T Sengkang-Soppeng #56	56	-4.29231	120.01775						0.19	2	2	0	33.50	0	0.6396
57	T Sengkang-Soppeng #57	57	-4.29480	120.01762						0.29	2	2	0	33.50	0	0.6396
58	T Sengkang-Soppeng #58	58	-4.29851	120.01735						0.50	2	2	0	33.50	0	0.6396
59	T Sengkang-Soppeng #59	59	-4.30238	120.01702						0.32	1	1	0	35.00	0	0.3198
60	T Sengkang-Soppeng #60	60	-4.30611	120.01685						0.28	1	1	0	35.00	0	0.3198
61	T Sengkang-Soppeng #61	61	-4.30774	120.01675						0.24	2	2	0	30.50	0	0.6396
62	T Sengkang-Soppeng #62	62	-4.31022	120.01652						0.28	1	1	0	26.00	0	0.3198
63	T Sengkang-Soppeng #63	63	-4.31323	120.01643						0.34	1	1	0	26.00	0	0.3198
64	T Sengkang-Soppeng #64	64	-4.31679	120.01615						0.31	1	1	0	26.00	0	0.3198
65	T Sengkang-Soppeng #65	65	-4.32004	120.01588						0.3	1	1	0	26.00	0	0.3198
66	T Sengkang-Soppeng #66	66	-4.32324	120.01570						0.3	0	0	0	0.00	0	0.0000
67	T Sengkang-Soppeng #67	67	-4.32595	120.01554						0.4	0	0	0	0.00	0	0.0000
68	T Sengkang-Soppeng #68	68	-4.32871	120.01536							0	0	0	0.00	0	0.0000
69	T Sengkang-Soppeng #69	69	-4.33137	120.01515							0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	T Sengkang-Soppeng #70	70	-4.33500	120.01335							0	0	0	0.00	0	0.0000
71	T Sengkang-Soppeng #71	71	-4.33808	120.01183							0	0	0	0.00	0	0.0000
72	T Sengkang-Soppeng #72	72	-4.34001	120.01003							1	1	0	33.00	0	0.3198
73	T Sengkang-Soppeng #73	73	-4.34291	120.00766							1	1	0	33.00	0	0.3198
74	T Sengkang-Soppeng #74	74	-4.34535	120.00558							1	1	0	33.00	0	0.3198
75	T Sengkang-Soppeng #75	75	-4.34769	120.00351							1	1	0	33.00	0	0.3198
76	T Sengkang-Soppeng #76	76	-4.35014	120.00153							1	1	0	33.00	0	0.3198
77	T Sengkang-Soppeng #77	77	-4.35005	119.99742							0	0	0	0.00	0	0.0000
78	T Sengkang-Soppeng #78	78	-4.35004	119.99357							0	0	0	0.00	0	0.0000
79	T Sengkang-Soppeng #79	79	-4.34998	119.98968							0	0	0	0.00	0	0.0000
80	T Sengkang-Soppeng #80	80	-4.34993	119.98556							0	0	0	0.00	0	0.0000
81	T Sengkang-Soppeng #81	81	-4.35001	119.98174							1	0	1	0.00	17	0.3198
82	T Sengkang-Soppeng #82	82	-4.34987	119.97892							1	0	1	0.00	17	0.3198
83	T Sengkang-Soppeng #83	83	-4.34863	119.97634							1	0	1	0.00	17	0.3198
84	T Sengkang-Soppeng #84	84	-4.34729	119.97365							1	0	1	0.00	17	0.3198
85	T Sengkang-Soppeng #85	85	-4.34576	119.97050							1	0	1	0.00	17	0.3198
86	T Sengkang-Soppeng #86	86	-4.34429	119.96760							1	0	1	0.00	17	0.3198
87	T Sengkang-Soppeng #87	87	-4.34280	119.96439							0	0	0	0.00	0	0.0000
88	T Sengkang-Soppeng #88	88	-4.34159	119.96206							0	0	0	0.00	0	0.0000
89	T Sengkang-Soppeng #89	89	-4.34020	119.95908							0	0	0	0.00	0	0.0000
90	T Sengkang-Soppeng #90	90	-4.33954	119.95611							0	0	0	0.00	0	0.0000
91	T Sengkang-Soppeng #91	91	-4.33898	119.95294							0	0	0	0.00	0	0.0000
92	T Sengkang-Soppeng #92	92	-4.33888	119.94915							0	0	0	0.00	0	0.0000
93	T Sengkang-Soppeng #93	93	-4.33879	119.94537							0	0	0	0.00	0	0.0000
94	T Sengkang-Soppeng #94	94	-4.33868	119.94178							0	0	0	0.00	0	0.0000
95	T Sengkang-Soppeng #95	95	-4.34023	119.93947							1	1	0	34.00	0	0.3198
96	T Sengkang-Soppeng #96	96	-4.34212	119.93658							3	3	0	27.00	0	0.9593
97	T Sengkang-Soppeng #97	97	-4.34405	119.93362							2	2	0	29.50	0	0.6396
98	T Sengkang-Soppeng #98	98	-4.34595	119.93072							2	2	0	29.50	0	0.6396
99	T Sengkang-Soppeng #99	99	-4.34791	119.92785							2	2	0	29.50	0	0.6396
100	T Sengkang-Soppeng #100	100	-4.34968	119.92514							1	1	0	25.00	0	0.3198
101	T Sengkang-Soppeng #101	101	-4.35041	119.92408							0	0	0	0.00	0	0.0000

Lampiran 22 Data Eksisting Transmisi Sidrap – Makale

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	Sidrap-Makale	1	-3.91644	119.75309						1.417	6	3	3	-31.00	41.6667	1.9187
2	Sidrap-Makale	2	-3.91413	119.75595						0.306	8	6	2	-30.33	50	2.5582
3	Sidrap-Makale	3	-3.91158	119.75773						0	9	8	1	-20.13	35	2.8780
4	Sidrap-Makale	4	-3.90932	119.75933						0.375	9	8	1	-19.63	35	2.8780
5	Sidrap-Makale	5	-3.90802	119.76189						0.404	10	9	1	-21.11	35	3.1978
6	Sidrap-Makale	6	-3.90650	119.76506						0.824	12	12	0	-23.25	0	3.8373
7	Sidrap-Makale	7	-3.90505	119.76780						0.746	14	12	2	-21.75	40	4.4769
8	Sidrap-Makale	8	-3.90352	119.77095						0.87	13	11	2	-20.27	40	4.1571
9	Sidrap-Makale	9	-3.90208	119.77388						0.619	12	9	3	-20.11	34.3333	3.8373
10	Sidrap-Makale	10	-3.90059	119.77677						0.552	8	6	2	-19.83	43	2.5582
11	Sidrap-Makale	11	-3.89923	119.77957						0.479	8	7	1	-17.71	23	2.5582
12	Sidrap-Makale	12	-3.89781	119.78245						0.364	4	3	1	-21.00	23	1.2791
13	Sidrap-Makale	13	-3.89644	119.78529						0.492	5	4	1	-26.50	23	1.5989
14	Sidrap-Makale	14	-3.89507	119.78806						0.541	4	3	1	-26.33	23	1.2791
15	Sidrap-Makale	15	-3.89372	119.79087						0.369	2	2	0	-25.00	0	0.6396
16	Sidrap-Makale	16	-3.89232	119.79373						0.447	4	4	0	-29.00	0	1.2791
17	Sidrap-Makale	17	-3.89085	119.79654						0.37	3	3	0	-24.33	0	0.9593
18	Sidrap-Makale	18	-3.88946	119.79954						0.37	4	4	0	-20.50	0	1.2791
19	Sidrap-Makale	19	-3.88799	119.80254						0.75	5	5	0	-18.00	0	1.5989
20	Sidrap-Makale	20	-3.88650	119.80538						0.45	6	6	0	-24.83	0	1.9187
21	Sidrap-Makale	21	-3.88513	119.80834						0.33	7	7	0	-25.71	0	2.2384
22	Sidrap-Makale	22	-3.88392	119.81141						0.13	6	6	0	-21.83	0	1.9187
23	Sidrap-Makale	23	-3.88264	119.81337						0.08	5	5	0	-15.40	0	1.5989
24	Sidrap-Makale	24	-3.87983	119.81486						0.16	4	4	0	-14.25	0	1.2791
25	Sidrap-Makale	25	-3.87708	119.81632							2	2	0	-14.00	0	0.6396
26	Sidrap-Makale	26	-3.87403	119.81776							5	5	0	-22.60	0	1.5989
27	Sidrap-Makale	27	-3.87145	119.81930						0.10	9	9	0	-17.56	0	2.8780
28	Sidrap-Makale	28	-3.86869	119.82050						0.05	8	8	0	-19.13	0	2.5582
29	Sidrap-Makale	29	-3.86571	119.82215						0.15	8	8	0	-18.38	0	2.5582
30	Sidrap-Makale	30	-3.86267	119.82354						0.08	9	8	1	-19.13	7	2.8780
31	Sidrap-Makale	31	-3.85983	119.82503						0.14	10	9	1	-16.00	7	3.1978
32	Sidrap-Makale	32	-3.85690	119.82648							14	13	1	-23.54	7	4.4769
33	Sidrap-Makale	33	-3.85386	119.82712						0.12	10	9	1	-18.11	7	3.1978

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	Sidrap-Makale	34	-3.85078	119.82775							14	13	1	-23.92	16	4.4769
35	Sidrap-Makale	35	-3.84746	119.82818							13	12	1	-24.75	16	4.1571
36	Sidrap-Makale	36	-3.84430	119.82878						0.83	12	11	1	-29.00	16	3.8373
37	Sidrap-Makale	37	-3.84112	119.82941						0.75	12	11	1	-30.00	16	3.8373
38	Sidrap-Makale	38	-3.83821	119.82989						2.06	11	10	1	-37.00	16	3.5175
39	Sidrap-Makale	39	-3.83480	119.83047						1.04	8	8	0	-36.00	0	2.5582
40	Sidrap-Makale	40	-3.83143	119.83116						2.03	11	10	1	-36.30	52	3.5175
41	Sidrap-Makale	41	-3.82818	119.83168						0.71	10	9	1	-45.44	52	3.1978
42	Sidrap-Makale	42	-3.82485	119.83229						6.25	11	9	2	-44.44	37	3.5175
43	Sidrap-Makale	43	-3.82183	119.83333						2.60	12	9	3	-43.11	27	3.8373
44	Sidrap-Makale	44	-3.81875	119.83427						0.52	12	9	3	-44.89	27	3.8373
45	Sidrap-Makale	45	-3.81554	119.83543						1.46	10	8	2	-37.25	14.5	3.1978
46	Sidrap-Makale	46	-3.81257	119.83639						3.41	8	5	3	-33.00	25.6667	2.5582
47	Sidrap-Makale	47	-3.80935	119.83747						1.35	9	5	4	-39.20	39.75	2.8780
48	Sidrap-Makale	48	-3.80712	119.83685						2.90	7	4	3	-65.25	37	2.2384
49	Sidrap-Makale	49	-3.80428	119.83616						0.71	6	5	1	-48.80	52	1.9187
50	Sidrap-Makale	50	-3.80080	119.83503						5.31	5	4	1	-59.00	52	1.5989
51	Sidrap-Makale	51	-3.79805	119.83464						0.72	5	4	1	-59.00	52	1.5989
52	Sidrap-Makale	52	-3.79522	119.83379						8.66	4	4	0	-49.25	0	1.2791
53	Sidrap-Makale	53	-3.79246	119.83300						1.38	5	5	0	-48.80	0	1.5989
54	Sidrap-Makale	54	-3.78896	119.83214						5.56	10	8	2	-49.88	19	3.1978
55	Sidrap-Makale	55	-3.78565	119.83131						0.80	11	9	2	-49.11	19	3.5175
56	Sidrap-Makale	56	-3.78244	119.83056						1.37	14	12	2	-46.75	19	4.4769
57	Sidrap-Makale	57	-3.77951	119.82977						1.28	16	13	3	-50.54	16	5.1164
58	Sidrap-Makale	58	-3.77660	119.82914						1.90	13	10	3	-50.30	16	4.1571
59	Sidrap-Makale	59	-3.77326	119.82829						1.39	7	6	1	-46.00	10	2.2384
60	Sidrap-Makale	60	-3.77003	119.82758						15.22	9	9	0	-32.22	0	2.8780
61	Sidrap-Makale	61	-3.76706	119.82682						9.57	8	8	0	-30.50	0	2.5582
62	Sidrap-Makale	62	-3.76428	119.82603						1.51	7	7	0	-32.14	0	2.2384
63	Sidrap-Makale	63	-3.76122	119.82539						1.29	7	6	1	-28.83	95	2.2384
64	Sidrap-Makale	64	-3.75793	119.82458						0.90	6	5	1	-24.20	95	1.9187
65	Sidrap-Makale	65	-3.75509	119.82394						3.788	8	7	1	-26.14	95	2.5582
66	Sidrap-Makale	66	-3.75200	119.82324						1.049	14	13	1	-27.54	25	4.4769
67	Sidrap-Makale	67	-3.74861	119.82250						1.082	17	16	1	-34.44	25	5.4362
68	Sidrap-Makale	68	-3.74554	119.82186						1.596	14	13	1	-24.92	25	4.4769
69	Sidrap-Makale	69	-3.74214	119.82116						1.051	16	15	1	-22.93	25	5.1164

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	Sidrap-Makale	70	-3.73946	119.82055						1.063	13	12	1	-18.17	25	4.1571
71	Sidrap-Makale	71	-3.73755	119.82019						2.537	11	11	0	-13.45	0	3.5175
72	Sidrap-Makale	72	-3.73525	119.81967						5.505	12	12	0	-20.58	0	3.8373
73	Sidrap-Makale	73	-3.73191	119.81900						#DIV/0!	12	12	0	-22.42	0	3.8373
74	Sidrap-Makale	74	-3.72958	119.81862						0.914	16	16	0	-23.88	0	5.1164
75	Sidrap-Makale	75	-3.72666	119.81812						1.164	22	21	1	-25.71	46	7.0351
76	Sidrap-Makale	76	-3.72460	119.81765						0.17	24	23	1	-27.17	46	7.6746
77	Sidrap-Makale	77	-3.72227	119.81598						1.317	25	24	1	-30.42	46	7.9944
78	Sidrap-Makale	78	-3.71983	119.81415						3.549	28	27	1	-29.22	46	8.9537
79	Sidrap-Makale	79	-3.71729	119.81225						0.99	24	23	1	-26.61	46	7.6746
80	Sidrap-Makale	80	-3.71540	119.81082						1.81	21	21	0	-26.90	0	6.7153
81	Sidrap-Makale	81	-3.71276	119.80903						0.65	28	28	0	-25.46	0	8.9537
82	Sidrap-Makale	82	-3.71035	119.80717						1.12	27	26	1	-24.12	18	8.6339
83	Sidrap-Makale	83	-3.70763	119.80526						0.39	22	21	1	-22.19	18	7.0351
84	Sidrap-Makale	84	-3.70488	119.80336						0.88	24	23	1	-27.22	18	7.6746
85	Sidrap-Makale	85	-3.70276	119.80170						1.54	29	28	1	-27.21	18	9.2735
86	Sidrap-Makale	86	-3.70063	119.80024						0.46	23	22	1	-28.64	18	7.3548
87	Sidrap-Makale	87	-3.69880	119.79973						1.18	19	18	1	-31.56	18	6.0757
88	Sidrap-Makale	88	-3.69566	119.79893						1.07	13	13	0	-29.77	0	4.1571
89	Sidrap-Makale	89	-3.69270	119.79812							12	12	0	-35.58	0	3.8373
90	Sidrap-Makale	90	-3.69057	119.79744							16	16	0	-27.44	0	5.1164
91	Sidrap-Makale	91	-3.68824	119.79678							16	16	0	-28.50	0	5.1164
92	Sidrap-Makale	92	-3.68451	119.79585						0.98	14	12	2	-27.17	28.5	4.4769
93	Sidrap-Makale	93	-3.68106	119.79490							11	10	1	-24.90	9	3.5175
94	Sidrap-Makale	94	-3.67960	119.79454							13	12	1	-23.50	9	4.1571
95	Sidrap-Makale	95	-3.67722	119.79398						0.58	11	10	1	-25.90	9	3.5175
96	Sidrap-Makale	96	-3.67477	119.79319						0.28	8	7	1	-18.57	9	2.5582
97	Sidrap-Makale	97	-3.67218	119.79256						0.79	8	7	1	-16.29	9	2.5582
98	Sidrap-Makale	98	-3.66970	119.79183						0.31	7	7	0	-26.29	0	2.2384
99	Sidrap-Makale	99	-3.66673	119.79100						0.34	8	8	0	-28.63	0	2.5582
100	Sidrap-Makale	100	-3.66391	119.79017						0.28	8	8	0	-28.63	0	2.5582
101	Sidrap-Makale	101	-3.66141	119.78942						0.54	6	5	1	-21.40	45	1.9187
102	Sidrap-Makale	102	-3.65857	119.78874						0.61	5	4	1	-15.25	45	1.5989
103	Sidrap-Makale	103	-3.65554	119.78785						0.24	7	4	3	-24.75	39	2.2384
104	Sidrap-Makale	104	-3.65303	119.78724							7	4	3	-33.75	39	2.2384
105	Sidrap-Makale	105	-3.65031	119.78674							6	4	2	-33.75	36	1.9187

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	Sidrap-Makale	106	-3.64839	119.78642							7	5	2	-49.60	36	2.2384
107	Sidrap-Makale	107	-3.64534	119.78596						0.18	8	6	2	-50.83	36	2.5582
108	Sidrap-Makale	108	-3.64174	119.78535						0.30	11	9	2	-50.11	36	3.5175
109	Sidrap-Makale	109	-3.63904	119.78496						0.20	11	10	1	-47.70	9	3.5175
110	Sidrap-Makale	110	-3.63631	119.78446						0.20	10	8	2	-46.75	23	3.1978
111	Sidrap-Makale	111	-3.63330	119.78404						0.10	9	7	2	-41.86	50.5	2.8780
112	Sidrap-Makale	112	-3.63031	119.78359						0.19	7	4	3	-32.25	42.6667	2.2384
113	Sidrap-Makale	113	-3.62788	119.78321						0.13	5	2	3	-43.50	42.6667	1.5989
114	Sidrap-Makale	114	-3.62563	119.78185						0.18	6	3	3	-37.00	42.6667	1.9187
115	Sidrap-Makale	115	-3.62358	119.78055						0.21	6	3	3	-26.67	43.3333	1.9187
116	Sidrap-Makale	116	-3.62076	119.77880						0.17	7	4	3	-28.50	43.3333	2.2384
117	Sidrap-Makale	117	-3.61857	119.77751						0.18	5	3	2	-30.00	26.5	1.5989
118	Sidrap-Makale	118	-3.61665	119.77632						0.17	8	5	3	-31.00	28.6667	2.5582
119	Sidrap-Makale	119	-3.61409	119.77475						0.33	14	12	2	-29.75	29.5	4.4769
120	Sidrap-Makale	120	-3.61226	119.77375						0.28	22	20	2	-30.20	29.5	7.0351
121	Sidrap-Makale	121	-3.60960	119.77205						0.24	24	23	1	-28.26	33	7.6746
122	Sidrap-Makale	122	-3.60680	119.77039						0.23	26	25	1	-29.32	33	8.3142
123	Sidrap-Makale	123	-3.60395	119.76869						0.26	25	23	2	-28.00	100	7.9944
124	Sidrap-Makale	124	-3.59909	119.76965						0.26	22	21	1	-27.57	167	7.0351
125	Sidrap-Makale	125	-3.59517	119.77045						0.32	19	18	1	-31.61	167	6.0757
126	Sidrap-Makale	126	-3.59262	119.77183						0.34	8	7	1	-42.86	167	2.5582
127	Sidrap-Makale	127	-3.59037	119.77292						0.00	7	6	1	-37.50	167	2.2384
128	Sidrap-Makale	128	-3.58871	119.77369						0.00	8	6	2	-37.17	118	2.5582
129	Sidrap-Makale	129	-3.58621	119.77487						0.80	8	7	1	-35.00	69	2.5582
130	Sidrap-Makale	130	-3.58336	119.77641						0.97	10	9	1	-28.89	69	3.1978
131	Sidrap-Makale	131	-3.58024284	119.7782733						0.996	11	10	1	-19.1	69	3.51752591
132	Sidrap-Makale	132	-3.57750247	119.7788999						0.638	13	12	1	-27.75	69	4.15707608
133	Sidrap-Makale	133	-3.57288021	119.7797823						0.667	15	14	1	-28	69	4.79662625
134	Sidrap-Makale	134	-3.56911502	119.780684						1.182	16	15	1	-26.7333	130	5.11640133
135	Sidrap-Makale	135	-3.56713312	119.781092						0.177	15	14	1	-28	130	4.79662625
136	Sidrap-Makale	136	-3.56426628	119.7818746						0.489	10	9	1	-25.7778	130	3.19775083
137	Sidrap-Makale	137	-3.56201974	119.7831923						0.26	9	8	1	-19.5	130	2.87797575
138	Sidrap-Makale	138	-3.55921776	119.783448						1.059	5	4	1	-20.25	130	1.59887542
139	Sidrap-Makale	139	-3.55705646	119.7816342						0.479	4	3	1	-19.6667	130	1.27910033
140	Sidrap-Makale	140	-3.55505491	119.7798678						0.372	5	3	2	-19.6667	98.5	1.59887542
141	Sidrap-Makale	141	-3.55217721	119.7795551						0.554	3	3	0	-19.6667	0	0.95932525

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	Sidrap-Makale	142	-3.54976905	119.7782449						0.309	5	4	1	-21.25	8	1.59887542
143	Sidrap-Makale	143	-3.54670433	119.7764747						0.688	6	5	1	-26.2	8	1.9186505
144	Sidrap-Makale	144	-3.54468683	119.7752778						0.339	6	5	1	-26.2	8	1.9186505
145	Sidrap-Makale	145	-3.54269534	119.7741111						0.123	8	7	1	-23	8	2.55820066
146	Sidrap-Makale	146	-3.53958044	119.7722906						0.443	8	7	1	-25.2857	8	2.55820066
147	Sidrap-Makale	147	-3.53680514	119.7724496						0.725	5	5	0	-34.4	0	1.59887542
148	Sidrap-Makale	148	-3.53362309	119.7727212						0.634	3	3	0	-45.3333	0	0.95932525
149	Sidrap-Makale	149	-3.53078442	119.7718451						0.374	1	1	0	-54	0	0.31977508
150	Sidrap-Makale	150	-3.52751162	119.7724904						0.258	1	1	0	-54	0	0.31977508
151	Sidrap-Makale	151	-3.52537088	119.7739806						0.802	2	2	0	-34.5	0	0.63955017
152	Sidrap-Makale	152	-3.52052151	119.7743612						6.127	1	1	0	-15	0	0.31977508
153	Sidrap-Makale	153	-3.5165543	119.7746374						0.459	1	1	0	-15	0	0.31977508
154	Sidrap-Makale	154	-3.51316408	119.7749619						0.47	1	1	0	-15	0	0.31977508
155	Sidrap-Makale	155	-3.51034909	119.7759768						1.372	0	0	0	0	0	0
156	Sidrap-Makale	156	-3.50778366	119.7770805						0.388	0	0	0	0	0	0
157	Sidrap-Makale	157	-3.50512305	119.7779414						0.481	0	0	0	0	0	0
158	Sidrap-Makale	158	-3.5037872	119.7785397						0.466	1	1	0	-40	0	0.31977508
159	Sidrap-Makale	159	-3.50031184	119.7797369						0.842	1	1	0	-40	0	0.31977508
160	Sidrap-Makale	160	-3.49662355	119.7815228						0.377	1	1	0	-40	0	0.31977508
161	Sidrap-Makale	161	-3.49401519	119.7820383						0.463	3	3	0	-35.3333	0	0.95932525
162	Sidrap-Makale	162	-3.48997779	119.7836346						0.343	8	8	0	-46.25	0	2.55820066
163	Sidrap-Makale	163	-3.48746435	119.7844913						0.387	12	12	0	-44.5833	0	3.837301
164	Sidrap-Makale	164	-3.48583148	119.7851232						0.209	13	13	0	-44.6154	0	4.15707608
165	Sidrap-Makale	165	-3.48288162	119.7863162						0.28	16	16	0	-47.875	0	5.11640133
166	Sidrap-Makale	166	-3.47966047	119.7876516						0.233	17	17	0	-48.0588	0	5.43617641
167	Sidrap-Makale	167	-3.47627169	119.7889569						0.315	10	10	0	-42.5	0	3.19775083
168	Sidrap-Makale	168	-3.47249627	119.788233						0.316	8	8	0	-43.125	0	2.55820066
169	Sidrap-Makale	169	-3.47058991	119.787768						0.864	5	5	0	-41.2	0	1.59887542
170	Sidrap-Makale	170	-3.46794416	119.7864377						1.658	4	4	0	-20.5	0	1.27910033
171	Sidrap-Makale	171	-3.46344014	119.7860837						1.584	4	4	0	-17	0	1.27910033
172	Sidrap-Makale	172	-3.45982361	119.7869045						0.35	2	2	0	-15	0	0.63955017
173	Sidrap-Makale	173	-3.45730952	119.7874126						1.941	2	2	0	-15	0	0.63955017
174	Sidrap-Makale	174	-3.45510394	119.7876895						0.616	1	1	0	-20	0	0.31977508
175	Sidrap-Makale	175	-3.45075836	119.7886258						0.527	1	1	0	-46	0	0.31977508
176	Sidrap-Makale	176	-3.44716234	119.7890159						0.66	1	1	0	-46	0	0.31977508
177	Sidrap-Makale	177	-3.44351918	119.7897896						0.515	1	1	0	-46	0	0.31977508

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
178	Sidrap-Makale	178	-3.44112503	119.7900545						0.759	1	1	0	-46	0	0.31977508
179	Sidrap-Makale	179	-3.43791502	119.7906032						1.792	1	1	0	-46	0	0.31977508
180	Sidrap-Makale	180	-3.43382695	119.7906083						0.723	1	1	0	-37	0	0.31977508
181	Sidrap-Makale	181	-3.43100533	119.791696						2.05	1	1	0	-37	0	0.31977508
182	Sidrap-Makale	182	-3.42704214	119.7920888						1.031	1	1	0	-37	0	0.31977508
183	Sidrap-Makale	183	-3.42522143	119.7926227						0.615	1	1	0	-62	0	0.31977508
184	Sidrap-Makale	184	-3.4215977	119.7925366						0.508	1	1	0	-62	0	0.31977508
185	Sidrap-Makale	185	-3.41784017	119.7934022						1.84	0	0	0	0	0	0
186	Sidrap-Makale	186	-3.41360563	119.7940993						0.467	0	0	0	0	0	0
187	Sidrap-Makale	187	-3.40931618	119.7948327						0.637	0	0	0	0	0	0
188	Sidrap-Makale	188	-3.40585762	119.7954319						0.739	0	0	0	0	0	0
189	Sidrap-Makale	189	-3.40234459	119.795928						1.305	0	0	0	0	0	0
190	Sidrap-Makale	190	-3.39854416	119.7961855						0.892	0	0	0	0	0	0
191	Sidrap-Makale	191	-3.39523529	119.796312						0.063	0	0	0	0	0	0
192	Sidrap-Makale	192	-3.39129491	119.7961462						0.37	0	0	0	0	0	0
193	Sidrap-Makale	193	-3.38773553	119.796466						0.877	0	0	0	0	0	0
194	Sidrap-Makale	194	-3.38506182	119.7963583						0.208	0	0	0	0	0	0
195	Sidrap-Makale	195	-3.38263442	119.7964216						0.101	0	0	0	0	0	0
196	Sidrap-Makale	196	-3.3806528	119.7971072						0.029	0	0	0	0	0	0
197	Sidrap-Makale	197	-3.37837625	119.7978921						0.89	0	0	0	0	0	0
198	Sidrap-Makale	198	-3.37547281	119.7990771						0.43	1	0	1	0	41	0.31977508
199	Sidrap-Makale	199	-3.37293024	119.7999584						1.392	1	0	1	0	41	0.31977508
200	Sidrap-Makale	200	-3.36970969	119.8011603						0.453	1	0	1	0	41	0.31977508
201	Sidrap-Makale	201	-3.36542301	119.8024428						0.683	2	1	1	-45	41	0.63955017
202	Sidrap-Makale	202	-3.36310781	119.8050234						2.014	2	1	1	-45	41	0.63955017
203	Sidrap-Makale	203	-3.36156542	119.8070153						0.659	2	1	1	-45	41	0.63955017
204	Sidrap-Makale	204	-3.35835865	119.8101878						0.536	1	1	0	-45	0	0.31977508
205	Sidrap-Makale	205	-3.35605695	119.812414						0.46	0	0	0	0	0	0
206	Sidrap-Makale	206	-3.35368643	119.8147694						0.597	0	0	0	0	0	0
207	Sidrap-Makale	207	-3.350625	119.8162203				7.82		2.419	0	0	0	0	0	0
208	Sidrap-Makale	208	-3.34717298	119.8176						1.764	0	0	0	0	0	0
209	Sidrap-Makale	209	-3.34430636	119.8186671						0.84	0	0	0	0	0	0
210	Sidrap-Makale	210	-3.34169169	119.8198139						0.544	1	0	1	0	7	0.31977508
211	Sidrap-Makale	211	-3.33876697	119.8209984						1.271	1	0	1	0	7	0.31977508
212	Sidrap-Makale	212	-3.33603887	119.8220571						0.898	1	0	1	0	7	0.31977508
213	Sidrap-Makale	213	-3.33420625	119.8227858						1.373	1	0	1	0	7	0.31977508

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
214	Sidrap-Makale	214	-3.33202744	119.8238149						0.732	1	0	1	0	7	0.31977508
215	Sidrap-Makale	215	-3.32799347	119.8227473						0.762	2	1	1	-10	7	0.63955017
216	Sidrap-Makale	216	-3.32476638	119.8220429						0.701	1	1	0	-10	0	0.31977508
217	Sidrap-Makale	217	-3.32087958	119.821154						1.414	1	1	0	-10	0	0.31977508
218	Sidrap-Makale	218	-3.3173336	119.8200754						1.113	1	1	0	-10	0	0.31977508
219	Sidrap-Makale	219	-3.31444413	119.8197214						0.918	0	0	0	0	0	0
220	Sidrap-Makale	220	-3.31087195	119.8209762						0.787	0	0	0	0	0	0
221	Sidrap-Makale	221	-3.30798374	119.8221719						0.598	0	0	0	0	0	0
222	Sidrap-Makale	222	-3.30576052	119.8229686						1.088	0	0	0	0	0	0
223	Sidrap-Makale	223	-3.30223335	119.8248331						0.786	0	0	0	0	0	0
224	Sidrap-Makale	224	-3.2994921	119.8261845						0.848	1	1	0	-27	0	0.31977508
225	Sidrap-Makale	225	-3.29695016	119.8277264						1.585	1	1	0	-27	0	0.31977508
226	Sidrap-Makale	226	-3.29391687	119.8298422						1.449	0	0	0	0	0	0
227	Sidrap-Makale	227	-3.29244616	119.8310853						0.445	0	0	0	0	0	0
228	Sidrap-Makale	228	-3.28983302	119.8336108						0.893	0	0	0	0	0	0
229	Sidrap-Makale	229	-3.28774981	119.8358472						0.378	0	0	0	0	0	0
230	Sidrap-Makale	230	-3.28638043	119.8373735						1.915	0	0	0	0	0	0
231	Sidrap-Makale	231	-3.28376402	119.8401307						1.72	0	0	0	0	0	0
232	Sidrap-Makale	232	-3.28106295	119.8426308						0.355	1	0	1	0	115	0.31977508
233	Sidrap-Makale	233	-3.27848467	119.8442397						0.984	1	0	1	0	115	0.31977508
234	Sidrap-Makale	234	-3.27614316	119.8470132						0.12	1	0	1	0	115	0.31977508
235	Sidrap-Makale	235	-3.27385672	119.8487461						0.935	1	0	1	0	115	0.31977508
236	Sidrap-Makale	236	-3.27182957	119.8505141						0.793	0	0	0	0	0	0
237	Sidrap-Makale	237	-3.26977349	119.8522814						0.911	0	0	0	0	0	0
238	Sidrap-Makale	238	-3.26923493	119.8546401						0.702	0	0	0	0	0	0
239	Sidrap-Makale	239	-3.26871065	119.8572948						1.51	0	0	0	0	0	0
240	Sidrap-Makale	240	-3.26795789	119.8600673						1.013	0	0	0	0	0	0
241	Sidrap-Makale	241	-3.26649663	119.8632738						0.696	0	0	0	0	0	0
242	Sidrap-Makale	242	-3.26626073	119.8663979						1.244	0	0	0	0	0	0
243	Sidrap-Makale	243	-3.2656801	119.8694445						0.685	0	0	0	0	0	0
244	Sidrap-Makale	244	-3.2635643	119.8713754						2.182	0	0	0	0	0	0
245	Sidrap-Makale	245	-3.26102899	119.8735348						0.847	0	0	0	0	0	0
246	Sidrap-Makale	246	-3.25957243	119.8749774						0.997	0	0	0	0	0	0
247	Sidrap-Makale	247	-3.25722393	119.8771387						1.098	0	0	0	0	0	0
248	Sidrap-Makale	248	-3.25451949	119.8795824						0.071	0	0	0	0	0	0
249	Sidrap-Makale	249	-3.25226467	119.8817232						1.097	0	0	0	0	0	0

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
250	Sidrap-Makale	250	-3.24966115	119.8840478						0.249	0	0	0	0	0	0
251	Sidrap-Makale	251	-3.24758292	119.885999						0.108	0	0	0	0	0	0
252	Sidrap-Makale	252	-3.24496538	119.8883914						0.543	0	0	0	0	0	0
253	Sidrap-Makale	253	-3.24291335	119.8885736						0.104	0	0	0	0	0	0
254	Sidrap-Makale	254	-3.23952239	119.8887485						0.048	0	0	0	0	0	0
255	Sidrap-Makale	255	-3.23604359	119.8889195						1.348	0	0	0	0	0	0
256	Sidrap-Makale	256	-3.23289435	119.8892293						0.876	1	0	1	0	86	0.31977508
257	Sidrap-Makale	257	-3.22959989	119.8894881						0.37	2	2	0	-32	0	0.63955017
258	Sidrap-Makale	258	-3.22630302	119.88953						0.306	2	2	0	-32	0	0.63955017
259	Sidrap-Makale	259	-3.22286265	119.8897928						0.257	3	3	0	-25.3333	0	0.95932525
260	Sidrap-Makale	260	-3.22052559	119.8899071						0.843	3	3	0	-25.3333	0	0.95932525
261	Sidrap-Makale	261	-3.21686223	119.8902299						0.573	3	3	0	-25.3333	0	0.95932525
262	Sidrap-Makale	262	-3.21370036	119.8903961						0.3	2	2	0	-18	0	0.63955017
263	Sidrap-Makale	263	-3.20981288	119.8906909						0.643	2	2	0	-20	0	0.63955017
264	Sidrap-Makale	264	-3.20670955	119.8908288						2.3	2	2	0	-20	0	0.63955017
265	Sidrap-Makale	265	-3.20371823	119.8910886						1.107	2	2	0	-20	0	0.63955017
266	Sidrap-Makale	266	-3.20057978	119.8912834						1.233	1	1	0	-16	0	0.31977508
267	Sidrap-Makale	267	-3.19724193	119.8914941						1.859	2	1	1	-16	10	0.63955017
268	Sidrap-Makale	268	-3.19361624	119.8917573						1.354	2	1	1	-34	10	0.63955017
269	Sidrap-Makale	269	-3.19088842	119.8918791						0.413	2	1	1	-34	10	0.63955017
270	Sidrap-Makale	270	-3.18743925	119.8921102						2.069	4	3	1	-33.6667	10	1.27910033
271	Sidrap-Makale	271	-3.18433365	119.8922745						0.64	4	3	1	-33.6667	10	1.27910033
272	Sidrap-Makale	272	-3.1809245	119.8924624						1.343	2	2	0	-33.5	0	0.63955017
273	Sidrap-Makale	273	-3.17774004	119.8927756						1.775	1	1	0	-42	0	0.31977508
274	Sidrap-Makale	274	-3.17470556	119.8935531						0.218	1	1	0	-42	0	0.31977508
275	Sidrap-Makale	275	-3.17080278	119.8945943						0.757	2	1	1	-20	101	0.63955017
276	Sidrap-Makale	276	-3.16916417	119.8966121						0.674	2	1	1	-20	101	0.63955017
277	Sidrap-Makale	277	-3.16767088	119.897951						0.897	1	1	0	-20	0	0.31977508
278	Sidrap-Makale	278	-3.16429137	119.8978915						0.182	3	2	1	-69	80	0.95932525
279	Sidrap-Makale	279	-3.16062575	119.8977224						1.356	5	4	1	-51	80	1.59887542
280	Sidrap-Makale	280	-3.1580555	119.8976847						1.636	5	4	1	-51	80	1.59887542
281	Sidrap-Makale	281	-3.15483503	119.8975316						1.781	5	4	1	-70.5	80	1.59887542
282	Sidrap-Makale	282	-3.15274523	119.8974087						0.832	6	5	1	-60.2	80	1.9186505
283	Sidrap-Makale	283	-3.14849358	119.8972736						2.198	6	5	1	-57	80	1.9186505
284	Sidrap-Makale	284	-3.1453007	119.8971823						0.725	7	7	0	-68	0	2.23842558
285	Sidrap-Makale	285	-3.14265067	119.8969924						0.648	7	6	1	-75.5	68	2.23842558

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
286	Sidrap-Makale	286	-3.13823625	119.896825						0.937	9	7	2	-90.2857	43.5	2.87797575
287	Sidrap-Makale	287	-3.13558961	119.8967638						0.302	7	5	2	-103	43.5	2.23842558
288	Sidrap-Makale	288	-3.1329211	119.896689						0.409	6	4	2	-122	43.5	1.9186505
289	Sidrap-Makale	289	-3.12977015	119.8966063						0.092	5	3	2	-81.6667	43.5	1.59887542
290	Sidrap-Makale	290	-3.12565097	119.896622						0.022	2	2	0	-100.5	0	0.63955017
291	Sidrap-Makale	291	-3.12268261	119.8967429						0.051	1	1	0	-22	0	0.31977508
292	Sidrap-Makale	292	-3.11933736	119.8967387						0.301	1	1	0	-22	0	0.31977508
293	Sidrap-Makale	293	-3.11718919	119.8967301						0.052	1	1	0	-22	0	0.31977508
294	Sidrap-Makale	294	-3.11332152	119.896779						0.454	2	2	0	-27.5	0	0.63955017
295	Sidrap-Makale	295	-3.11124803	119.8967901						0.144	2	2	0	-26.5	0	0.63955017
296	Sidrap-Makale	296	-3.10859622	119.8968343						0.13	2	2	0	-26.5	0	0.63955017
297	Sidrap-Makale	297	-3.10485522	119.8968308						0.19	1	1	0	-20	0	0.31977508
298	Sidrap-Makale	298	-3.1012693	119.8968736						0.048	2	2	0	-30	0	0.63955017
299	Sidrap-Makale	299	-3.097246	119.8967176						0.144	2	2	0	-30	0	0.63955017
300	Sidrap-Makale	300	-3.09518712	119.8968635						0.284	4	3	1	-24	22	1.27910033
301	Sidrap-Makale	301	-3.09220341	119.8967113						0.264	3	3	0	-24	0	0.95932525
302	Sidrap-Makale	302	-3.0882724	119.896834						0.408	3	3	0	-24	0	0.95932525
303	Sidrap-Makale	303	-3.08605637	119.8967452						0.37	4	4	0	-35	0	1.27910033
304	Sidrap-Makale	304	-3.08282959	119.8968251						0.584	2	2	0	-40	0	0.63955017
305	Sidrap-Makale	305	-3.08001351	119.8968394						0.168	2	2	0	-40	0	0.63955017
306	Sidrap-Makale	306	-3.07657134	119.8957899						0.833	1	1	0	-68	0	0.31977508
307	Sidrap-Makale	307	-3.07337087	119.8954192						0.153	2	1	1	-68	70	0.63955017
308	Sidrap-Makale	308	-3.07247528	119.8953129						0.103	2	1	1	-68	70	0.63955017

Lampiran 23 Data Eksisting Transmisi Sidrap – Maros

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 KV SIDRAP-PLTB SIDRAP	1	-3.91624	119.75260						0.104	1	1	0	-8.00	0	0.3198
2	SUTT 150 KV SIDRAP-PLTB SIDRAP	2	-3.91537	119.75061						0.008	0	0	0	0.00	0	0.0000
3	SUTT 150 KV SIDRAP-PLTB SIDRAP	3	-3.91487	119.74746						0.033	1	1	0	-42.00	0	0.3198
4	SUTT 150 KV SIDRAP-PLTB SIDRAP	4	-3.91429	119.74407						0.094	1	1	0	-42.00	0	0.3198
5	SUTT 150 KV SIDRAP-PLTB SIDRAP	5	-3.91369	119.74059						0.423	1	1	0	-42.00	0	0.3198
6	SUTT 150 KV SIDRAP-PLTB SIDRAP	6	-3.91330	119.73740						0.228	0	0	0	0.00	0	0.0000
7	SUTT 150 KV SIDRAP-PLTB SIDRAP	7	-3.91293	119.73483						0.302	1	1	0	-10.00	0	0.3198
8	SUTT 150 KV SIDRAP-PLTB SIDRAP	8	-3.91222	119.73181						0.26	2	2	0	-36.50	0	0.6396
9	SUTT 150 KV SIDRAP-PLTB SIDRAP	9	-3.91160	119.72790						0.945	2	2	0	-36.50	0	0.6396
10	SUTT 150 KV SIDRAP-PLTB SIDRAP	10	-3.91150	119.72529						0.866	2	2	0	-36.50	0	0.6396
11	SUTT 150 KV SIDRAP-PLTB SIDRAP	11	-3.91313	119.72176						0.343	1	1	0	-10.00	0	0.3198
12	SUTT 150 KV SIDRAP-PLTB SIDRAP	12	-3.91468	119.71833						0.149	0	0	0	0.00	0	0.0000
13	SUTT 150 KV SIDRAP-PLTB SIDRAP	13	-3.91677	119.71613						0.35	0	0	0	0.00	0	0.0000
14	SUTT 150 KV SIDRAP-PLTB SIDRAP	14	-3.91913	119.71380						0.749	0	0	0	0.00	0	0.0000
15	SUTT 150 KV SIDRAP-PLTB SIDRAP	15	-3.92133	119.71167						0.648	0	0	0	0.00	0	0.0000
16	SUTT 150 KV SIDRAP-PLTB SIDRAP	16	-3.92370	119.70915						0.365	1	1	0	-7.00	0	0.3198
17	SUTT 150 KV SIDRAP-PLTB SIDRAP	17	-3.92656	119.70631						0.43	1	1	0	-7.00	0	0.3198
18	SUTT 150 KV SIDRAP-PLTB SIDRAP	18	-3.92858	119.70588						0.41	1	1	0	-7.00	0	0.3198
19	SUTT 150 KV SIDRAP-PLTB SIDRAP	19	-3.93101	119.70545						1.12	1	1	0	-7.00	0	0.3198
20	SUTT 150 KV SIDRAP-PLTB SIDRAP	20	-3.93321	119.70502						0.40	1	1	0	-7.00	0	0.3198
21	SUTT 150 KV SIDRAP-PLTB SIDRAP	21	-3.93489	119.70282						0.54	1	1	0	-7.00	0	0.3198
22	SUTT 150 KV SIDRAP-PLTB SIDRAP	22	-3.93643	119.70060						1.13	0	0	0	0.00	0	0.0000
23	SUTT 150 KV SIDRAP-PLTB SIDRAP	23	-3.93811	119.69829						0.10	0	0	0	0.00	0	0.0000
24	SUTT 150 KV SIDRAP-PLTB SIDRAP	24	-3.94121	119.69628						0.33	0	0	0	0.00	0	0.0000
25	SUTT 150 KV SIDRAP-PLTB SIDRAP	25	-3.94436	119.69437						0.43	1	1	0	-30.00	0	0.3198
26	SUTT 150 KV SIDRAP-PLTB SIDRAP	26	-3.94709	119.69277						0.61	1	1	0	-30.00	0	0.3198
27	SUTT 150 KV SIDRAP-PLTB SIDRAP	27	-3.94985	119.69163						0.31	2	1	1	-30.00	77	0.6396
28	SUTT 150 KV SIDRAP-PLTB SIDRAP	28	-3.95282	119.69037						0.37	2	1	1	-30.00	77	0.6396
29	SUTT 150 KV SIDRAP-PLTB SIDRAP	29	-3.95442	119.68962						0.09	2	1	1	-30.00	77	0.6396
30	SUTT 150 KV SIDRAP-PLTB SIDRAP	30	-3.95736	119.68837						0.26	2	1	1	-30.00	77	0.6396
31	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 8	-3.95988	119.68647						0.45	2	1	1	-129.00	84	0.6396
32	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 7	-3.96099	119.68917						0.65	0	0	0	0.00	0	0.0000
33	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 6	-3.96232	119.69238						0.02	1	1	0	-92.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 5	-3.96360	119.69568						0.02	2	1	1	-92.00	136	0.6396
35	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 4	-3.96480	119.69874						0.33	2	1	1	-92.00	136	0.6396
36	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 3	-3.96583	119.70154						0.07	2	1	1	-92.00	136	0.6396
37	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 2	-3.96657	119.70438						0.17	3	1	2	-92.00	92	0.9593
38	SUTT 150 KV SIDRAP-PLTB SIDRAP	INC 1	-3.96716	119.70930						0.23	3	0	3	0.00	87	0.9593
39	SUTT 150 kV PLTB Sidrap - Balusu Ext	32	-3.96170	119.68421						1.63	2	0	2	0.00	92	0.6396
40	SUTT 150 kV PLTB Sidrap - Balusu Ext	33	-3.96436	119.68178						0.63	1	0	1	0.00	48	0.3198
41	SUTT 150 kV PLTB Sidrap - Balusu Ext	34	-3.96659	119.67959						0.97	1	0	1	0.00	48	0.3198
42	SUTT 150 kV PLTB Sidrap - Balusu Ext	35	-3.96867	119.67765						0.78	2	1	1	-47.00	48	0.6396
43	SUTT 150 kV PLTB Sidrap - Balusu Ext	36	-3.97049	119.67614						0.61	2	1	1	-47.00	48	0.6396
44	SUTT 150 kV PLTB Sidrap - Balusu Ext	37	-3.97297	119.67410						0.24	0	0	0	0.00	0	0.0000
45	SUTT 150 kV PLTB Sidrap - Balusu Ext	38	-3.97488	119.67255						0.73	1	1	0	-85.00	0	0.3198
46	SUTT 150 kV PLTB Sidrap - Balusu Ext	39	-3.97685	119.67097						0.49	1	1	0	-85.00	0	0.3198
47	SUTT 150 kV PLTB Sidrap - Balusu Ext	40	-3.97888	119.66926						0.58	2	2	0	-120.00	0	0.6396
48	SUTT 150 kV PLTB Sidrap - Balusu Ext	41	-3.98200	119.66676						0.86	2	2	0	-120.00	0	0.6396
49	SUTT 150 kV PLTB Sidrap - Balusu Ext	42	-3.98437	119.66535						1.41	1	1	0	-155.00	0	0.3198
50	SUTT 150 kV PLTB Sidrap - Balusu Ext	43	-3.98783	119.66335						0.94	1	1	0	-155.00	0	0.3198
51	SUTT 150 kV PLTB Sidrap - Balusu Ext	44	-3.98999	119.66335						0.46	2	1	1	-155.00	14	0.6396
52	SUTT 150 kV PLTB Sidrap - Balusu Ext	45	-3.99359	119.66365						0.73	2	1	1	-155.00	14	0.6396
53	SUTT 150 kV PLTB Sidrap - Balusu Ext	46	-3.99655	119.66430						0.74	2	1	1	-96.00	14	0.6396
54	SUTT 150 kV PLTB Sidrap - Balusu Ext	47	-3.99890	119.66687						0.53	0	0	0	0.00	0	0.0000
55	SUTT 150 kV PLTB Sidrap - Balusu Ext	48	-4.00133	119.66960						0.88	0	0	0	0.00	0	0.0000
56	SUTT 150 kV PLTB Sidrap - Balusu Ext	49	-4.00438	119.67124						0.90	3	2	1	-24.00	40	0.9593
57	SUTT 150 kV PLTB Sidrap - Balusu Ext	50	-4.00744	119.67288						0.54	3	2	1	-24.00	40	0.9593
58	SUTT 150 kV PLTB Sidrap - Balusu Ext	51	-4.00942	119.67400						1.45	3	2	1	-24.00	40	0.9593
59	SUTT 150 kV PLTB Sidrap - Balusu Ext	52	-4.01143	119.67501						1.17	3	2	1	-24.00	40	0.9593
60	SUTT 150 kV PLTB Sidrap - Balusu Ext	53	-4.01374	119.67637						0.74	3	2	1	-24.00	40	0.9593
61	SUTT 150 kV PLTB Sidrap - Balusu Ext	54	-4.01756	119.67657						0.50	1	1	0	-22.00	0	0.3198
62	SUTT 150 kV PLTB Sidrap - Balusu Ext	55	-4.01946	119.67660						0.81	2	2	0	-54.50	0	0.6396
63	SUTT 150 kV PLTB Sidrap - Balusu Ext	56	-4.02286	119.67537						0.58	3	3	0	-66.67	0	0.9593
64	SUTT 150 kV PLTB Sidrap - Balusu Ext	57	-4.02621	119.67424		ada				0.86	3	3	0	-66.67	0	0.9593
65	SUTT 150 kV PLTB Sidrap - Balusu Ext	58	-4.02915	119.67204						1.1	5	5	0	-63.40	0	1.5989
66	SUTT 150 kV PLTB Sidrap - Balusu Ext	59	-4.03207	119.66977						0.58	2	2	0	-44.50	0	0.6396
67	SUTT 150 kV PLTB Sidrap - Balusu Ext	60	-4.03515	119.66756						0.93	2	2	0	-44.50	0	0.6396
68	SUTT 150 kV PLTB Sidrap - Balusu Ext	61	-4.03805	119.66572						0.36	2	2	0	-31.50	0	0.6396
69	SUTT 150 kV PLTB Sidrap - Balusu Ext	62	-4.03990	119.66331						0.97	2	2	0	-31.50	0	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV PLTB Sidrap - Balusu Ext	63	-4.04141	119.66135						0.57	2	2	0	-31.50	0	0.6396
71	SUTT 150 kV PLTB Sidrap - Balusu Ext	64	-4.04318	119.65904						0.26	2	2	0	-59.50	0	0.6396
72	SUTT 150 kV PLTB Sidrap - Balusu Ext	65	-4.04511	119.65655						0.17	2	2	0	-59.50	0	0.6396
73	SUTT 150 kV PLTB Sidrap - Balusu Ext	66	-4.04732	119.65368						0.15	1	1	0	-108.00	0	0.3198
74	SUTT 150 kV PLTB Sidrap - Balusu Ext	67	-4.04918	119.65118						0.88	1	1	0	-108.00	0	0.3198
75	SUTT 150 kV PLTB Sidrap - Balusu Ext	68	-4.05098	119.64781						1.11	1	1	0	-108.00	0	0.3198
76	SUTT 150 kV PLTB Sidrap - Balusu Ext	69	-4.05224	119.64472						0.78	0	0	0	0.00	0	0.0000
77	SUTT 150 kV PLTB Sidrap - Balusu Ext	70	-4.05282	119.64307						0.87	1	1	0	-56.00	0	0.3198
78	SUTT 150 kV PLTB Sidrap - Balusu Ext	71	-4.05410	119.63869						0.51	2	2	0	-87.50	0	0.6396
79	SUTT 150 kV PLTB Sidrap - Balusu Ext	72	-4.05720	119.63560						0.97	3	3	0	-63.67	0	0.9593
80	SUTT 150 kV PLTB Sidrap - Balusu Ext	73	-4.06090	119.63341						1.74	4	4	0	-52.25	0	1.2791
81	SUTT 150 kV PLTB Sidrap - Balusu Ext	74	-4.06458	119.63267						1.40	2	2	0	-37.00	0	0.6396
82	SUTT 150 kV PLTB Sidrap - Balusu Ext	75	-4.06769	119.63200						0.64	3	3	0	-46.33	0	0.9593
83	SUTT 150 kV PLTB Sidrap - Balusu Ext	76	-4.07061	119.63000						2.01	5	5	0	-50.60	0	1.5989
84	SUTT 150 kV PLTB Sidrap - Balusu Ext	77	-4.07468	119.62717						1.76	11	9	2	-77.67	30	3.5175
85	SUTT 150 kV PLTB Sidrap - Balusu Ext	78	-4.07980	119.62628						0.77	12	10	2	-74.50	30	3.8373
86	SUTT 150 kV PLTB Sidrap - Balusu Ext	79	-4.08360	119.62536						0.72	12	9	3	-77.00	49.3333	3.8373
87	SUTT 150 kV PLTB Sidrap - Balusu Ext	80	-4.08708	119.62453						0.68	10	8	2	-75.88	30	3.1978
88	SUTT 150 kV PLTB Sidrap - Balusu Ext	81	-4.09032	119.62382						0.43	10	9	1	-71.22	28	3.1978
89	SUTT 150 kV PLTB Sidrap - Balusu Ext	82	-4.09343	119.62214						0.75	0	0	0	0.00	0	0.0000
90	SUTT 150 kV PLTB Sidrap - Balusu Ext	83	-4.09662	119.62105						2.09	0	0	0	0.00	0	0.0000
91	SUTT 150 kV PLTB Sidrap - Balusu Ext	84	-4.09923	119.62003						0.77	0	0	0	0.00	0	0.0000
92	SUTT 150 kV PLTB Sidrap - Balusu Ext	85	-4.10234	119.61904						0.47	1	0	1	0.00	46	0.3198
93	SUTT 150 kV PLTB Sidrap - Balusu Ext	86	-4.10589	119.62035						0.60	2	1	1	-18.00	46	0.6396
94	SUTT 150 kV PLTB Sidrap - Balusu Ext	87	-4.10793	119.62107						0.66	3	2	1	-14.00	46	0.9593
95	SUTT 150 kV PLTB Sidrap - Balusu Ext	88	-4.11117	119.62226						0.33	3	2	1	-14.00	46	0.9593
96	SUTT 150 kV PLTB Sidrap - Balusu Ext	89	-4.11408	119.62322						0.30	3	3	0	-19.00	0	0.9593
97	SUTT 150 kV PLTB Sidrap - Balusu Ext	90	-4.11597	119.62281						0.42	7	7	0	-29.43	0	2.2384
98	SUTT 150 kV PLTB Sidrap - Balusu Ext	91	-4.11859	119.62211						0.35	7	7	0	-29.43	0	2.2384
99	SUTT 150 kV PLTB Sidrap - Balusu Ext	92	-4.12153	119.62193						0.36	6	6	0	-32.67	0	1.9187
100	SUTT 150 kV PLTB Sidrap - Balusu Ext	93	-4.12437	119.62180						0.48	4	4	0	-39.75	0	1.2791
101	SUTT 150 kV PLTB Sidrap - Balusu Ext	94	-4.12712	119.62317						0.57	4	4	0	-39.75	0	1.2791
102	SUTT 150 kV PLTB Sidrap - Balusu Ext	95	-4.12939	119.62513						0.43	1	1	0	-68.00	0	0.3198
103	SUTT 150 kV PLTB Sidrap - Balusu Ext	96	-4.13472	119.62621							0	0	0	0.00	0	0.0000
104	SUTT 150 kV PLTB Sidrap - Balusu Ext	97	-4.13722	119.62533						0.38	0	0	0	0.00	0	0.0000
105	SUTT 150 kV PLTB Sidrap - Balusu Ext	98	-4.14090	119.62404						0.41	1	1	0	-9.00	0	0.3198

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106	SUTT 150 kV PLTB Sidrap - Balusu Ext	99	-4.14345	119.62221						0.31	1	1	0	-9.00	0	0.3198
107	SUTT 150 kV PLTB Sidrap - Balusu Ext	100	-4.14559	119.62270						0.28	2	2	0	-48.00	0	0.6396
108	SUTT 150 kV PLTB Sidrap - Balusu Ext	101	-4.14736	119.62329						0.43	2	2	0	-48.00	0	0.6396
109	SUTT 150 kV PLTB Sidrap - Balusu Ext	102	-4.14831	119.62487						0.43	3	3	0	-49.33	0	0.9593
110	SUTT 150 kV PLTB Sidrap - Balusu Ext	103	-4.15087	119.62894						0.32	2	2	0	-69.50	0	0.6396
111	SUTT 150 kV PLTB Sidrap - Balusu Ext	104	-4.15218	119.63184						0.43	2	2	0	-69.50	0	0.6396
112	SUTT 150 kV PLTB Sidrap - Balusu Ext	105	-4.15322	119.63362							1	1	0	-52.00	0	0.3198
113	SUTT 150 kV PLTB Sidrap - Balusu Ext	106	-4.15525	119.63635							2	1	1	-61.00	98	0.6396
114	SUTT 150 kV PLTB Sidrap - Balusu Ext	107	-4.15749	119.63941							1	1	0	-61.00	0	0.3198
115	SUTT 150 kV PLTB Sidrap - Balusu Ext	108	-4.15954	119.64076							3	3	0	-45.67	0	0.9593
116	SUTT 150 kV PLTB Sidrap - Balusu Ext	109	-4.16289	119.64278							5	4	1	-52.50	106	1.5989
117	SUTT 150 kV PLTB Sidrap - Balusu Ext	110	-4.16606	119.64253							6	5	1	-48.20	106	1.9187
118	SUTT 150 kV PLTB Sidrap - Balusu Ext	111	-4.16956	119.64226							6	4	2	-45.00	96.5	1.9187
119	SUTT 150 kV PLTB Sidrap - Balusu Ext	112	-4.17286	119.64205							5	3	2	-39.00	96.5	1.5989
120	SUTT 150 kV PLTB Sidrap - Balusu Ext	113	-4.17626	119.64181							2	1	1	-48.00	106	0.6396
121	SUTT 150 kV PLTB Sidrap - Balusu Ext	114	-4.17924	119.64150							2	2	0	-54.50	0	0.6396
122	SUTT 150 kV PLTB Sidrap - Balusu Ext	115	-4.18117	119.64137							3	3	0	-73.00	0	0.9593
123	SUTT 150 kV PLTB Sidrap - Balusu Ext	116	-4.18340	119.64119							3	3	0	-73.00	0	0.9593
124	SUTT 150 kV PLTB Sidrap - Balusu Ext	117	-4.18562	119.64115							4	3	1	-73.00	53	1.2791
125	SUTT 150 kV PLTB Sidrap - Balusu Ext	118	-4.18886	119.64082							3	2	1	-85.50	53	0.9593
126	SUTT 150 kV PLTB Sidrap - Balusu Ext	119	-4.19223	119.64060							5	4	1	-75.00	53	1.5989
127	SUTT 150 kV PLTB Sidrap - Balusu Ext	120	-4.19525	119.64032							5	4	1	-75.00	53	1.5989
128	SUTT 150 kV PLTB Sidrap - Balusu Ext	121	-4.19827	119.64010							4	3	1	-142.33	53	1.2791
129	SUTT 150 kV PLTB Sidrap - Balusu Ext	122	-4.20154	119.64029							3	3	0	-117.00	0	0.9593
130	SUTT 150 kV PLTB Sidrap - Balusu Ext	123	-4.20353	119.64043							4	4	0	-91.25	0	1.2791
131	SUTT 150 kV PLTB Sidrap - Balusu Ext	124	-4.20688056	119.6406773							4	4	0	-37	0	1.27910033
132	SUTT 150 kV PLTB Sidrap - Balusu Ext	125	-4.20913839	119.6407309							4	4	0	-37	0	1.27910033
133	SUTT 150 kV PLTB Sidrap - Balusu Ext	126	-4.21220432	119.6407881						0.4	4	4	0	-37	0	1.27910033
134	SUTT 150 kV PLTB Sidrap - Balusu Ext	127	-4.21463859	119.6408942							2	2	0	-60	0	0.63955017
135	SUTT 150 kV PLTB Sidrap - Balusu Ext	128	-4.2180761	119.6411061							1	1	0	-70	0	0.31977508
136	SUTT 150 kV PLTB Sidrap - Balusu Ext	129	-4.22152852	119.6411968							0	0	0	0	0	0
137	SUTT 150 kV PLTB Sidrap - Balusu Ext	130	-4.2249159	119.6413113							0	0	0	0	0	0
138	SUTT 150 kV PLTB Sidrap - Balusu Ext	131	-4.22828215	119.6414146							0	0	0	0	0	0
139	SUTT 150 kV PLTB Sidrap - Balusu Ext	132	-4.23192124	119.6415009							0	0	0	0	0	0
140	SUTT 150 kV PLTB Sidrap - Balusu Ext	133	-4.23473798	119.6416278							0	0	0	0	0	0
141	SUTT 150 kV PLTB Sidrap - Balusu Ext	134	-4.23710385	119.6416971							0	0	0	0	0	0

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	SUTT 150 kV PLTB Sidrap - Balusu Ext	135	-4.2403158	119.6418087							0	0	0	0	0	0
143	SUTT 150 kV PLTB Sidrap - Balusu Ext	136	-4.24304101	119.6422804							0	0	0	0	0	0
144	SUTT 150 kV PLTB Sidrap - Balusu Ext	137	-4.24666501	119.6430008							2	2	0	-67	0	0.63955017
145	SUTT 150 kV PLTB Sidrap - Balusu Ext	138	-4.24977109	119.6436517							2	2	0	-67	0	0.63955017
146	SUTT 150 kV PLTB Sidrap - Balusu Ext	139	-4.25135384	119.6439275							2	2	0	-67	0	0.63955017
147	SUTT 150 kV PLTB Sidrap - Balusu Ext	140	-4.25456168	119.6444629							2	2	0	-67	0	0.63955017
148	SUTT 150 kV PLTB Sidrap - Balusu Ext	141	-4.25775326	119.6456964							1	1	0	-87	0	0.31977508
149	SUTT 150 kV PLTB Sidrap - Balusu Ext	142	-4.26100988	119.6469248							3	2	1	-57.5	57	0.95932525
150	SUTT 150 kV PLTB Sidrap - Balusu Ext	143	-4.26418017	119.6480723							2	1	1	-28	57	0.63955017
151	SUTT 150 kV PLTB Sidrap - Balusu Ext	144	-4.26734677	119.6492524							6	3	3	-24.3333	61	1.9186505
152	SUTT 150 kV PLTB Sidrap - Balusu Ext	145	-4.27071403	119.6493216							8	5	3	-27	61	2.55820066
153	SUTT 150 kV PLTB Sidrap - Balusu Ext	146	-4.27382162	119.6493722							7	5	2	-27	63	2.23842558
154	SUTT 150 kV PLTB Sidrap - Balusu Ext	147	-4.2772432	119.6494232							10	8	2	-34.625	63	3.19775083
155	SUTT 150 kV PLTB Sidrap - Balusu Ext	148	-4.28058741	119.6494677							8	6	2	-38.3333	63	2.55820066
156	SUTT 150 kV PLTB Sidrap - Balusu Ext	149	-4.28380488	119.6495028							10	8	2	-34.25	63	3.19775083
157	SUTT 150 kV PLTB Sidrap - Balusu Ext	150	-4.28688004	119.6495051							6	6	0	-34.8333	0	1.9186505
158	SUTT 150 kV PLTB Sidrap - Balusu Ext	151	-4.29027756	119.6494938							9	5	4	-32.8	46.5	2.87797575
159	SUTT 150 kV PLTB Sidrap - Balusu Ext	152	-4.29349604	119.6501335							9	4	5	-35.25	48.2	2.87797575
160	SUTT 150 kV PLTB Sidrap - Balusu Ext	153	-4.29589444	119.6506153							9	4	5	-30	48.2	2.87797575
161	SUTT 150 kV PLTB Sidrap - Balusu Ext	154	-4.29974844	119.6513771							8	3	5	-25.6667	49	2.55820066
162	SUTT 150 kV PLTB Sidrap - Balusu Ext	155	-4.30317245	119.6520763							13	8	5	-40.25	54.2	4.15707608
163	SUTT 150 kV Bulusu - Maros	156	-4.30670759	119.651849							25	22	3	-31.3636	54.3333	7.99437708
164	SUTT 150 kV Bulusu - Maros	157	-4.30969853	119.651745							26	25	1	-30.52	72	8.31415216
165	SUTT 150 kV Bulusu - Maros	158	-4.31324369	119.6515648							29	26	3	-30.2692	49.6667	9.27347741
166	SUTT 150 kV Bulusu - Maros	159	-4.31591679	119.6513915							27	24	3	-30.3333	49.6667	8.63392724
167	SUTT 150 kV Bulusu - Maros	160	-4.31932033	119.6512295							19	16	3	-27.875	47.6667	6.07572658
168	SUTT 150 kV Bulusu - Maros	161	-4.32221561	119.6510818							15	13	2	-21.9231	45	4.79662625
169	SUTT 150 kV Bulusu - Maros	162	-4.32645431	119.6508561							15	11	4	-23	39.75	4.79662625
170	SUTT 150 kV Bulusu - Maros	163	-4.32935832	119.6504464							15	13	2	-30.6923	60.5	4.79662625
171	SUTT 150 kV Bulusu - Maros	164	-4.33178758	119.6501327							17	14	3	-29.9286	41.3333	5.43617641
172	SUTT 150 kV Bulusu - Maros	165	-4.33596961	119.6495342							13	11	2	-33.1818	58.5	4.15707608
173	SUTT 150 kV Bulusu - Maros	166	-4.33865353	119.6491543							11	9	2	-32.7778	58.5	3.51752591
174	SUTT 150 kV Bulusu - Maros	167	-4.34207219	119.6486843							7	7	0	-25.2857	0	2.23842558
175	SUTT 150 kV Bulusu - Maros	168	-4.34537192	119.6482076							2	1	1	-15	42	0.63955017
176	SUTT 150 kV Bulusu - Maros	169	-4.34875313	119.6479084							2	1	1	-7	42	0.63955017
177	SUTT 150 kV Bulusu - Maros	170	-4.35216621	119.6476765							3	1	2	-7	47.5	0.95932525

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
178	SUTT 150 kV Bulusu - Maros	171	-4.35552536	119.6473694							2	1	1	-7	53	0.63955017
179	SUTT 150 kV Bulusu - Maros	172	-4.35871082	119.6460925							3	2	1	-14	53	0.95932525
180	SUTT 150 kV Bulusu - Maros	173	-4.36182955	119.6447921							3	2	1	-13.5	45	0.95932525
181	SUTT 150 kV Bulusu - Maros	174	-4.36418627	119.6438097							5	3	2	-11	34	1.59887542
182	SUTT 150 kV Bulusu - Maros	175	-4.36825969	119.6424136							4	2	2	-13.5	34	1.27910033
183	SUTT 150 kV Bulusu - Maros	176	-4.37108809	119.6413406							3	1	2	-6	34	0.95932525
184	SUTT 150 kV Bulusu - Maros	177	-4.37336489	119.6403179							0	0	0	0	0	0
185	SUTT 150 kV Bulusu - Maros	178	-4.37656637	119.6389166							2	2	0	-15	0	0.63955017
186	SUTT 150 kV Bulusu - Maros	179	-4.37899041	119.6378611							3	3	0	-55.6667	0	0.95932525
187	SUTT 150 kV Bulusu - Maros	180	-4.38269137	119.6362283							6	5	1	-61.6	78	1.9186505
188	SUTT 150 kV Bulusu - Maros	181	-4.38563613	119.6349516							8	6	2	-53.1667	67.5	2.55820066
189	SUTT 150 kV Bulusu - Maros	182	-4.38719971	119.6337942							8	6	2	-53.1667	67.5	2.55820066
190	SUTT 150 kV Bulusu - Maros	183	-4.38975885	119.6318384							7	5	2	-125.2	67.5	2.23842558
191	SUTT 150 kV Bulusu - Maros	184	-4.39311133	119.6309486						0.47	5	4	1	-122.25	57	1.59887542
192	SUTT 150 kV Bulusu - Maros	185	-4.39648058	119.6300743							9	8	1	-76	57	2.87797575
193	SUTT 150 kV Bulusu - Maros	186	-4.39994061	119.6292169							10	9	1	-78.6667	57	3.19775083
194	SUTT 150 kV Bulusu - Maros	187	-4.40269265	119.6284928							10	10	0	-72	0	3.19775083
195	SUTT 150 kV Bulusu - Maros	188	-4.40547918	119.6277953							10	10	0	-41.2	0	3.19775083
196	SUTT 150 kV Bulusu - Maros	189	-4.40771685	119.6272362							15	14	1	-36.2857	37	4.79662625
197	SUTT 150 kV Bulusu - Maros	190	-4.41049892	119.627174							16	15	1	-38.1333	37	5.11640133
198	SUTT 150 kV Bulusu - Maros	191	-4.41351218	119.6271654							18	17	1	-53.7647	37	5.75595149
199	SUTT 150 kV Bulusu - Maros	192	-4.41645309	119.6271477							15	14	1	-49.5714	37	4.79662625
200	SUTT 150 kV Bulusu - Maros	193	-4.41913523	119.627118							17	16	1	-48.5625	37	5.43617641
201	SUTT 150 kV Bulusu - Maros	195	-4.42245921	119.6270973							17	16	1	-35.3125	37	5.43617641
202	SUTT 150 kV Bulusu - Maros	196	-4.42520579	119.627025							13	13	0	-35.1539	0	4.15707608
203	SUTT 150 kV Bulusu - Maros	197	-4.42855105	119.6270217							10	10	0	-26	0	3.19775083
204	SUTT 150 kV Bulusu - Maros	198	-4.43204918	119.6269652							7	7	0	-35.1429	0	2.23842558
205	SUTT 150 kV Bulusu - Maros	199	-4.43530404	119.6269426							10	9	1	-28	31	3.19775083
206	SUTT 150 kV Bulusu - Maros	200	-4.43824593	119.6269382							8	7	1	-23.4286	31	2.55820066
207	SUTT 150 kV Bulusu - Maros	201	-4.44169716	119.6264191							9	8	1	-20.625	31	2.87797575
208	SUTT 150 kV Bulusu - Maros	202	-4.44529916	119.6258789							10	9	1	-25.2222	31	3.19775083
209	SUTT 150 kV Bulusu - Maros	203	-4.44877948	119.6257553							14	13	1	-34.0769	31	4.47685116
210	SUTT 150 kV Bulusu - Maros	204	-4.45199147	119.6256226							14	13	1	-33.7692	31	4.47685116
211	SUTT 150 kV Bulusu - Maros	205	-4.45529018	119.6255218							11	11	0	-37.2727	0	3.51752591
212	SUTT 150 kV Bulusu - Maros	206	-4.45934181	119.6249769							7	7	0	-55.7143	0	2.23842558
213	SUTT 150 kV Bulusu - Maros	207	-4.46263178	119.6244789							4	4	0	-53.25	0	1.27910033

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
214	SUTT 150 kV Bulusu - Maros	208	-4.46591397	119.6240037							5	5	0	-72.6	0	1.59887542
215	SUTT 150 kV Bulusu - Maros	209	-4.46934901	119.6235148							8	7	1	-122	29	2.55820066
216	SUTT 150 kV Bulusu - Maros	210	-4.47214828	119.6231195							10	9	1	-91.3333	29	3.19775083
217	SUTT 150 kV Bulusu - Maros	211	-4.47492823	119.6216989							9	8	1	-86.125	29	2.87797575
218	SUTT 150 kV Bulusu - Maros	212	-4.47743994	119.6203887							9	8	1	-84.75	29	2.87797575
219	SUTT 150 kV Bulusu - Maros	213	-4.47936631	119.6193787							7	6	1	-82.8333	29	2.23842558
220	SUTT 150 kV Bulusu - Maros	214	-4.48190389	119.6180073							5	3	2	-29	61	1.59887542
221	SUTT 150 kV Bulusu - Maros	215	-4.48520528	119.6169491							4	2	2	-8	80	1.27910033
222	SUTT 150 kV Bulusu - Maros	216	-4.48654122	119.6166649							3	2	1	-8	67	0.95932525
223	SUTT 150 kV Bulusu - Maros	217	-4.49033447	119.6144586							7	2	5	-91.5	66	2.23842558
224	SUTT 150 kV Bulusu - Maros	218	-4.49343768	119.6131989							10	5	5	-53.8	66	3.19775083
225	SUTT 150 kV Bulusu - Maros	219	-4.49648589	119.6119559							13	8	5	-55.125	66	4.15707608
226	SUTT 150 kV Bulusu - Maros	220	-4.49933197	119.6108283							14	8	6	-52	70.8333	4.47685116
227	SUTT 150 kV Bulusu - Maros	221	-4.50162393	119.6098403							13	8	5	-52	71.6	4.15707608
228	SUTT 150 kV Bulusu - Maros	222	-4.50469498	119.60857							12	10	2	-50.6	83.5	3.837301
229	SUTT 150 kV Bulusu - Maros	223	-4.50815759	119.6074797							7	5	2	-42.4	79	2.23842558
230	SUTT 150 kV Bulusu - Maros	224	-4.51138859	119.6066048							7	4	3	-29.75	57.3333	2.23842558
231	SUTT 150 kV Bulusu - Maros	225	-4.51466389	119.6056558							9	6	3	-33.5	57.3333	2.87797575
232	SUTT 150 kV Bulusu - Maros	226	-4.517743	119.6046979							7	5	2	-35.2	75	2.23842558
233	SUTT 150 kV Bulusu - Maros	227	-4.52091914	119.6037781							5	3	2	-15.3333	75	1.59887542
234	SUTT 150 kV Bulusu - Maros	228	-4.52392707	119.6042372							4	3	1	-15.3333	71	1.27910033
235	SUTT 150 kV Bulusu - Maros	229	-4.52788419	119.6048426							3	2	1	-12	71	0.95932525
236	SUTT 150 kV Bulusu - Maros	230	-4.53050211	119.6061452							3	3	0	-11.6667	0	0.95932525
237	SUTT 150 kV Bulusu - Maros	231	-4.53356352	119.6076598							5	4	1	-13.25	79	1.59887542
238	SUTT 150 kV Bulusu - Maros	232	-4.53691498	119.6092528							4	3	1	-13.3333	79	1.27910033
239	SUTT 150 kV Bulusu - Maros	233	-4.54026938	119.6090726						0.06	4	4	0	-11.75	0	1.27910033
240	SUTT 150 kV Bulusu - Maros	234	-4.54393679	119.6088745							3	3	0	-12	0	0.95932525
241	SUTT 150 kV Bulusu - Maros	235	-4.54824774	119.6087391							3	3	0	-12	0	0.95932525
242	SUTT 150 kV Bulusu - Maros	236	-4.55037008	119.6086026							3	3	0	-14.3333	0	0.95932525
243	SUTT 150 kV Bulusu - Maros	237	-4.55328487	119.6084528							9	8	1	-17.25	61	2.87797575
244	SUTT 150 kV Bulusu - Maros	238	-4.5567727	119.6082823							11	10	1	-21.8	61	3.51752591
245	SUTT 150 kV Bulusu - Maros	239	-4.55892855	119.608186							12	11	1	-26	61	3.837301
246	SUTT 150 kV Bulusu - Maros	240	-4.56124517	119.6080634							10	8	2	-30.25	72.5	3.19775083
247	SUTT 150 kV Bulusu - Maros	241	-4.56351642	119.6079389							11	9	2	-28.5556	72.5	3.51752591
248	SUTT 150 kV Bulusu - Maros	242	-4.56808685	119.6076827							11	9	2	-22.1111	79	3.51752591
249	SUTT 150 kV Bulusu - Maros	243	-4.57004583	119.6077192							11	9	2	-22.1111	79	3.51752591

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
250	SUTT 150 kV Bulusu - Maros	244	-4.57264454	119.6078163							10	8	2	-22.5	79	3.19775083
251	SUTT 150 kV Bulusu - Maros	245	-4.57537768	119.6080354							7	5	2	-16.6	79	2.23842558
252	SUTT 150 kV Bulusu - Maros	246	-4.57864853	119.6072883							7	4	3	-16.75	68.6667	2.23842558
253	SUTT 150 kV Bulusu - Maros	247	-4.58188453	119.6065933							7	4	3	-16.25	68.6667	2.23842558
254	SUTT 150 kV Bulusu - Maros	248	-4.58513107	119.6058603							6	3	3	-18	52.6667	1.9186505
255	SUTT 150 kV Bulusu - Maros	249	-4.58817334	119.6052094							6	3	3	-18	52.6667	1.9186505
256	SUTT 150 kV Bulusu - Maros	250	-4.59136973	119.6045552							6	3	3	-18	52.6667	1.9186505
257	SUTT 150 kV Bulusu - Maros	251	-4.59442458	119.6043397							4	2	2	-14.5	39.5	1.27910033
258	SUTT 150 kV Bulusu - Maros	252	-4.59788127	119.6040937							3	2	1	-58	26	0.95932525
259	SUTT 150 kV Bulusu - Maros	253	-4.60126132	119.6038275							3	3	0	-45.6667	0	0.95932525
260	SUTT 150 kV Bulusu - Maros	254	-4.60490004	119.6035411							8	8	0	-43.25	0	2.55820066
261	SUTT 150 kV Bulusu - Maros	255	-4.60805917	119.6033327							16	15	1	-47.8	42	5.11640133
262	SUTT 150 kV Bulusu - Maros	256	-4.61080071	119.6031392							19	18	1	-46.4444	42	6.07572658
263	SUTT 150 kV Bulusu - Maros	257	-4.61433073	119.6028596							21	21	0	-42.1905	0	6.71527674
264	SUTT 150 kV Bulusu - Maros	258	-4.61771003	119.6026424							21	21	0	-45.0476	0	6.71527674
265	SUTT 150 kV Bulusu - Maros	259	-4.62110742	119.602376							16	16	0	-50.125	0	5.11640133
266	SUTT 150 kV Bulusu - Maros	260	-4.62455232	119.6021438							9	9	0	-55.3333	0	2.87797575
267	SUTT 150 kV Bulusu - Maros	261	-4.62764104	119.6019444							4	4	0	-82.5	0	1.27910033
268	SUTT 150 kV Bulusu - Maros	262	-4.63101362	119.6017369							3	3	0	-94	0	0.95932525
269	SUTT 150 kV Bulusu - Maros	263	-4.63413081	119.6014109							2	2	0	-100	0	0.63955017
270	SUTT 150 kV Bulusu - Maros	264	-4.63753012	119.6012122							2	2	0	-86.5	0	0.63955017
271	SUTT 150 kV Bulusu - Maros	265	-4.64087989	119.6009659							3	3	0	-76.3333	0	0.95932525
272	SUTT 150 kV Bulusu - Maros	264	-4.64446815	119.6007044							6	5	1	-42.8	120	1.9186505
273	SUTT 150 kV Bulusu - Maros	265	-4.64767279	119.6004885							6	5	1	-42.4	120	1.9186505
274	SUTT 150 kV Bulusu - Maros	266	-4.65069163	119.6002881							7	7	0	-36.4286	0	2.23842558
275	SUTT 150 kV Bulusu - Maros	267	-4.65348678	119.6001009							6	6	0	-27.8333	0	1.9186505
276	SUTT 150 kV Bulusu - Maros	268	-4.65647701	119.5998619							5	5	0	-22.2	0	1.59887542
277	SUTT 150 kV Bulusu - Maros	269	-4.6597947	119.599634							9	9	0	-24	0	2.87797575
278	SUTT 150 kV Bulusu - Maros	270	-4.66322805	119.5993699							16	16	0	-22.625	0	5.11640133
279	SUTT 150 kV Bulusu - Maros	271	-4.66656713	119.5991584							16	16	0	-23.125	0	5.11640133
280	SUTT 150 kV Bulusu - Maros	272	-4.66978378	119.5989456							20	20	0	-24.35	0	6.39550166
281	SUTT 150 kV Bulusu - Maros	273	-4.67314491	119.5986871							18	18	0	-26.1111	0	5.75595149
282	SUTT 150 kV Bulusu - Maros	274	-4.6765212	119.5984539							14	14	0	-24.8571	0	4.47685116
283	SUTT 150 kV Bulusu - Maros	275	-4.67922183	119.5982584							11	11	0	-27.1818	0	3.51752591
284	SUTT 150 kV Bulusu - Maros	276	-4.68248534	119.598023							8	8	0	-27.125	0	2.55820066
285	SUTT 150 kV Bulusu - Maros	277	-4.68564256	119.597789							7	7	0	-27.2857	0	2.23842558

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
286	SUTT 150 kV Bulusu - Maros	278	-4.68914374	119.5976791							4	4	0	-24.25	0	1.27910033
287	SUTT 150 kV Bulusu - Maros	279	-4.69222837	119.5975716							5	4	1	-36.75	50	1.59887542
288	SUTT 150 kV Bulusu - Maros	280	-4.69559007	119.5974676							4	3	1	-30.3333	50	1.27910033
289	SUTT 150 kV Bulusu - Maros	281	-4.69873361	119.5973873							6	5	1	-24.2	50	1.9186505
290	SUTT 150 kV Bulusu - Maros	282	-4.70202651	119.5972531							5	4	1	-28	50	1.59887542
291	SUTT 150 kV Bulusu - Maros	283	-4.70531925	119.5971991							7	6	1	-24.5	50	2.23842558
292	SUTT 150 kV Bulusu - Maros	284	-4.7085958	119.5971188							5	5	0	-18.2	0	1.59887542
293	SUTT 150 kV Bulusu - Maros	285	-4.71194027	119.5969644							6	6	0	-23.1667	0	1.9186505
294	SUTT 150 kV Bulusu - Maros	286	-4.71526119	119.5969106							3	3	0	-23.6667	0	0.95932525
295	SUTT 150 kV Bulusu - Maros	287	-4.71858297	119.5967835							3	3	0	-43.6667	0	0.95932525
296	SUTT 150 kV Bulusu - Maros	288	-4.72189398	119.596692							5	5	0	-38.8	0	1.59887542
297	SUTT 150 kV Bulusu - Maros	289	-4.72513253	119.5965962							6	6	0	-36.6667	0	1.9186505
298	SUTT 150 kV Bulusu - Maros	290	-4.72841821	119.5964904							8	8	0	-28.5	0	2.55820066
299	SUTT 150 kV Bulusu - Maros	291	-4.73177101	119.5964225							9	8	1	-28.25	94	2.87797575
300	SUTT 150 kV Bulusu - Maros	292	-4.7350374	119.5963056							9	8	1	-21.75	94	2.87797575
301	SUTT 150 kV Bulusu - Maros	293	-4.73833876	119.5962146							10	9	1	-17.4444	94	3.19775083
302	SUTT 150 kV Bulusu - Maros	294	-4.74150546	119.5961319							7	6	1	-17.1667	13	2.23842558
303	SUTT 150 kV Bulusu - Maros	295	-4.74479925	119.5959924							7	6	1	-17.1667	13	2.23842558
304	SUTT 150 kV Bulusu - Maros	296	-4.74812142	119.5959114							7	6	1	-17	13	2.23842558
305	SUTT 150 kV Bulusu - Maros	297	-4.75143535	119.5958055							5	5	0	-17.2	0	1.59887542
306	SUTT 150 kV Bulusu - Maros	298	-4.75474478	119.5957187							2	2	0	-20	0	0.63955017
307	SUTT 150 kV Bulusu - Maros	299	-4.75804656	119.5957303							2	2	0	-27	0	0.63955017
308	SUTT 150 kV Bulusu - Maros	300	-4.76134066	119.5955741							3	3	0	-25.3333	0	0.95932525
309	SUTT 150 kV Bulusu - Maros	301	-4.76469812	119.5954352							3	3	0	-25.6667	0	0.95932525
310	SUTT 150 kV Bulusu - Maros	302	-4.76740546	119.5952929							4	4	0	-23.25	0	1.27910033
311	SUTT 150 kV Bulusu - Maros	303	-4.77073285	119.5952247							6	6	0	-20.1667	0	1.9186505
312	SUTT 150 kV Bulusu - Maros	304	-4.77405729	119.5951347							6	6	0	-21.5	0	1.9186505
313	SUTT 150 kV Bulusu - Maros	305	-4.77738696	119.5949932							6	6	0	-21.5	0	1.9186505
314	SUTT 150 kV Bulusu - Maros	306	-4.78069827	119.5949075							4	4	0	-20	0	1.27910033
315	SUTT 150 kV Bulusu - Maros	307	-4.78355943	119.5937948							4	4	0	-20	0	1.27910033
316	SUTT 150 kV Bulusu - Maros	308	-4.78665682	119.5925366							0	0	0	0	0	0
317	SUTT 150 kV Bulusu - Maros	309	-4.78941224	119.591468							0	0	0	0	0	0
318	SUTT 150 kV Bulusu - Maros	310	-4.79341043	119.5910441							0	0	0	0	0	0
319	SUTT 150 kV Bulusu - Maros	311	-4.79492804	119.5909685						0.16	0	0	0	0	0	0
320	SUTT 150 kV Bulusu - Maros	312	-4.79896611	119.5905487							0	0	0	0	0	0
321	SUTT 150 kV Bulusu - Maros	313	-4.80069044	119.5904441							1	1	0	-21	0	0.31977508

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
322	SUTT 150 kV Bulusu - Maros	314	-4.80233817	119.5903394							3	3	0	-22	0	0.95932525
323	SUTT 150 kV Bulusu - Maros	315	-4.80400213	119.5879209							3	3	0	-46.3333	0	0.95932525
324	SUTT 150 kV Bulusu - Maros	316	-4.80557669	119.5857057							2	2	0	-59	0	0.63955017
325	SUTT 150 kV Bulusu - Maros	317	-4.80749717	119.5830139							2	2	0	-59	0	0.63955017
326	SUTT 150 kV Bulusu - Maros	318	-4.80945098	119.5803058							3	2	1	-59	73	0.95932525
327	SUTT 150 kV Bulusu - Maros	319	-4.81137891	119.5775863							2	1	1	-104	73	0.63955017
328	SUTT 150 kV Bulusu - Maros	320	-4.81330735	119.5749458							4	3	1	-46	73	1.27910033
329	SUTT 150 kV Bulusu - Maros	321	-4.81511595	119.5722783							6	5	1	-34.2	73	1.9186505
330	SUTT 150 kV Bulusu - Maros	322	-4.81682306	119.5709629							8	8	0	-33	0	2.55820066
331	SUTT 150 kV Bulusu - Maros	323	-4.82092965	119.5698042							12	12	0	-33.5833	0	3.837301
332	SUTT 150 kV Bulusu - Maros	324	-4.82463706	119.5694123							12	12	0	-40.6667	0	3.837301
333	SUTT 150 kV Bulusu - Maros	325	-4.82783493	119.5689336							19	19	0	-39.6842	0	6.07572658
334	SUTT 150 kV Bulusu - Maros	326	-4.83020518	119.5686548							20	20	0	-35.45	0	6.39550166
335	SUTT 150 kV Bulusu - Maros	327	-4.83305608	119.5683451							18	18	0	-34.5556	0	5.75595149
336	SUTT 150 kV Bulusu - Maros	328	-4.83655032	119.5681412							13	13	0	-32.6923	0	4.15707608
337	SUTT 150 kV Bulusu - Maros	329	-4.83837432	119.5693714							13	13	0	-27.0769	0	4.15707608
338	SUTT 150 kV Bulusu - Maros	330	-4.84006263	119.5706777							12	12	0	-27.9167	0	3.837301
339	SUTT 150 kV Bulusu - Maros	331	-4.84269643	119.5725153							7	7	0	-12.4286	0	2.23842558
340	SUTT 150 kV Bulusu - Maros	332	-4.84545966	119.5744919							3	3	0	-19.6667	0	0.95932525
341	SUTT 150 kV Bulusu - Maros	333	-4.84779625	119.5760702							4	4	0	-20.25	0	1.27910033
342	SUTT 150 kV Bulusu - Maros	334	-4.85084731	119.5782195							5	5	0	-19.8	0	1.59887542
343	SUTT 150 kV Bulusu - Maros	335	-4.8537006	119.5793649							4	4	0	-20.25	0	1.27910033
344	SUTT 150 kV Bulusu - Maros	336	-4.85696376	119.580673							4	4	0	-20.25	0	1.27910033
345	SUTT 150 kV Bulusu - Maros	337	-4.85991597	119.5819063							2	2	0	-20.5	0	0.63955017
346	SUTT 150 kV Bulusu - Maros	338	-4.86280473	119.5830296							1	1	0	-40	0	0.31977508
347	SUTT 150 kV Bulusu - Maros	339	-4.86580803	119.5842567							2	2	0	-48	0	0.63955017
348	SUTT 150 kV Bulusu - Maros	340	-4.86899896	119.5855286							5	5	0	-28.8	0	1.59887542
349	SUTT 150 kV Bulusu - Maros	341	-4.8717195	119.5866149							3	3	0	-20	0	0.95932525
350	SUTT 150 kV Bulusu - Maros	342	-4.87448941	119.5874781							3	3	0	-20	0	0.95932525
351	SUTT 150 kV Bulusu - Maros	343	-4.87728514	119.5881568							2	2	0	-10	0	0.63955017
352	SUTT 150 kV Bulusu - Maros	344	-4.88059223	119.5891173							3	2	1	-57	30	0.95932525
353	SUTT 150 kV Bulusu - Maros	345	-4.88361381	119.5899615							4	3	1	-45	30	1.27910033
354	SUTT 150 kV Bulusu - Maros	346	-4.88691642	119.5909283							3	2	1	-64	30	0.95932525
355	SUTT 150 kV Bulusu - Maros	347	-4.88958576	119.5916374							3	2	1	-64	30	0.95932525
356	SUTT 150 kV Bulusu - Maros	348	-4.89312065	119.5926507							1	1	0	-21	0	0.31977508
357	SUTT 150 kV Bulusu - Maros	349	-4.89626791	119.5927184							1	0	1	0	79	0.31977508

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
358	SUTT 150 kV Bulusu - Maros	350	-4.89948996	119.5928459							2	1	1	-17	79	0.63955017
359	SUTT 150 kV Bulusu - Maros	351	-4.90305455	119.5928696							2	1	1	-17	79	0.63955017
360	SUTT 150 kV Bulusu - Maros	352	-4.90626396	119.592864							3	2	1	-16	79	0.95932525
361	SUTT 150 kV Bulusu - Maros	353	-4.90963099	119.5929625							3	2	1	-16	79	0.95932525
362	SUTT 150 kV Bulusu - Maros	354	-4.91323702	119.5932003							1	1	0	-15	0	0.31977508
363	SUTT 150 kV Bulusu - Maros	355	-4.91673942	119.593316							2	2	0	-14	0	0.63955017
364	SUTT 150 kV Bulusu - Maros	356	-4.9195766	119.593523							3	3	0	-24.6667	0	0.95932525
365	SUTT 150 kV Bulusu - Maros	357	-4.92170029	119.5944053							1	1	0	-13	0	0.31977508
366	SUTT 150 kV Bulusu - Maros	358	-4.92374564	119.5949315							1	1	0	-13	0	0.31977508
367	SUTT 150 kV Bulusu - Maros	359	-4.92562198	119.5955717							1	1	0	-13	0	0.31977508
368	SUTT 150 kV Bulusu - Maros	360	-4.9278663	119.5963085							1	1	0	-13	0	0.31977508
369	SUTT 150 kV Bulusu - Maros	361	-4.93028651	119.5961184												

Lampiran 24 Data Eksisting Transmisi Sidrap – Soppeng

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	T Sidrap-Soppeng #1	1	-3.91772	119.75251						0.253	1	1	0	8.00	0	0.6396
2	T Sidrap-Soppeng #2	2	-3.92013	119.75256						0.389	2	2	0	22.00	0	0.6396
3	T Sidrap-Soppeng #3	3	-3.92216	119.75472						0.819	2	2	0	22.00	0	0.6396
4	T Sidrap-Soppeng #4	4	-3.92426	119.75690						0.691	2	2	0	22.00	0	0.9593
5	T Sidrap-Soppeng #5	5	-3.92647	119.75919						0.773	3	3	0	40.67	0	0.9593
6	T Sidrap-Soppeng #6	6	-3.92853	119.76139						0.603	3	3	0	48.67	0	0.9593
7	T Sidrap-Soppeng #7	7	-3.93083	119.76366						0.444	3	3	0	48.67	0	0.6396
8	T Sidrap-Soppeng #8	8	-3.93295	119.76588						0.487	2	2	0	55.00	0	0.6396
9	T Sidrap-Soppeng #9	9	-3.93522	119.76831						0.399	2	2	0	89.50	0	0.6396
10	T Sidrap-Soppeng #10	10	-3.93736	119.77052						0.412	2	2	0	89.50	0	0.3198
11	T Sidrap-Soppeng #11	11	-3.93945	119.77267						1.218	1	1	0	147.00	0	0.3198
12	T Sidrap-Soppeng #12	12	-3.94137	119.77467						0.953	1	1	0	147.00	0	0.9593
13	T Sidrap-Soppeng #13	13	-3.94334	119.77671						0.257	3	3	0	124.67	0	1.2791
14	T Sidrap-Soppeng #14	14	-3.94549	119.77896							4	4	0	125.00	0	1.2791
15	T Sidrap-Soppeng #15	15	-3.94766	119.78124						0.591	4	4	0	109.50	0	1.2791
16	T Sidrap-Soppeng #16	16	-3.94972	119.78333						0.273	4	4	0	109.50	0	1.2791
17	T Sidrap-Soppeng #17	17	-3.95172	119.78544						0.38	4	4	0	109.50	0	0.9593
18	T Sidrap-Soppeng #18	18	-3.95362	119.78736						0.43	3	3	0	116.33	0	0.6396
19	T Sidrap-Soppeng #19	19	-3.95570	119.78951						0.53	2	2	0	105.50	0	0.0000
20	T Sidrap-Soppeng #20	20	-3.95764	119.79159						0.42	0	0	0	0.00	0	0.0000
21	T Sidrap-Soppeng #21	21	-3.96006	119.79395						0.82	0	0	0	0.00	0	0.0000
22	T Sidrap-Soppeng #22	22	-3.96146	119.79551						0.63	0	0	0	0.00	0	0.0000
23	T Sidrap-Soppeng #23	23	-3.96323	119.79731						1.61	0	0	0	0.00	0	0.0000
24	T Sidrap-Soppeng #24	24	-3.96479	119.79898						0.45	0	0	0	0.00	0	0.0000
25	T Sidrap-Soppeng #25	25	-3.96648	119.80068						0.80	0	0	0	0.00	0	0.6396
26	T Sidrap-Soppeng #26	26	-3.96980	119.80130						0.99	2	2	0	41.00	0	1.5989
27	T Sidrap-Soppeng #27	27	-3.97320	119.80200						0.86	5	5	0	39.40	0	1.5989
28	T Sidrap-Soppeng #28	28	-3.97638	119.80266						0.36	5	5	0	39.40	0	1.9187
29	T Sidrap-Soppeng #29	29	-3.97902	119.80311						0.85	6	6	0	35.00	0	1.2791
30	T Sidrap-Soppeng #30	30	-3.98168	119.80360						0.91	4	4	0	32.00	0	2.2384
31	T Sidrap-Soppeng #31	31	-3.98433	119.80429						0.62	7	7	0	27.86	0	1.9187
32	T Sidrap-Soppeng #32	32	-3.98669	119.80476						0.83	6	6	0	30.33	0	1.2791
33	T Sidrap-Soppeng #33	33	-3.99000	119.80544						0.73	4	4	0	21.00	0	1.2791

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	T Sidrap-Soppeng #34	34	-3.99271	119.80599						0.39	4	4	0	22.75	0	1.2791
35	T Sidrap-Soppeng #35	35	-3.99536	119.80651						0.31	4	4	0	22.75	0	0.9593
36	T Sidrap-Soppeng #36	36	-3.99839	119.80713						0.46	3	3	0	14.33	0	0.3198
37	T Sidrap-Soppeng #37	37	-4.00147	119.80781						0.50	1	1	0	19.00	0	0.6396
38	T Sidrap-Soppeng #38	38	-4.00439	119.80835						0.65	2	2	0	45.50	0	0.6396
39	T Sidrap-Soppeng #39	39	-4.00708	119.80888						0.37	2	2	0	45.50	0	0.3198
40	T Sidrap-Soppeng #40	40	-4.00945	119.80938						0.69	1	1	0	72.00	0	1.2791
41	T Sidrap-Soppeng #41	41	-4.01258	119.81000						0.21	4	4	0	33.00	0	0.9593
42	T Sidrap-Soppeng #42	42	-4.01557	119.81062						0.43	3	3	0	20.00	0	1.2791
43	T Sidrap-Soppeng #43	43	-4.01848	119.81122						0.40	4	4	0	17.25	0	1.2791
44	T Sidrap-Soppeng #44	44	-4.02154	119.81177						0.31	4	4	0	17.25	0	0.9593
45	T Sidrap-Soppeng #45	45	-4.02438	119.81239						0.52	3	3	0	14.67	0	0.3198
46	T Sidrap-Soppeng #46	46	-4.02732	119.81290						0.72	1	1	0	12.00	0	0.0000
47	T Sidrap-Soppeng #47	47	-4.03002	119.81342						0.60	0	0	0	0.00	0	0.0000
48	T Sidrap-Soppeng #48	48	-4.03329	119.81408						0.66	0	0	0	0.00	0	0.3198
49	T Sidrap-Soppeng #49	49	-4.03652	119.81476						0.74	1	1	0	16.00	0	0.9593
50	T Sidrap-Soppeng #50	50	-4.03947	119.81529						0.43	3	3	0	16.00	0	0.9593
51	T Sidrap-Soppeng #51	51	-4.04209	119.81585						1.17	3	3	0	16.00	0	0.9593
52	T Sidrap-Soppeng #52	52	-4.04448	119.81629						0.41	3	3	0	16.00	0	0.9593
53	T Sidrap-Soppeng #53	53	-4.04676	119.81662						0.37	3	3	0	16.00	0	0.9593
54	T Sidrap-Soppeng #54	54	-4.04926	119.81783						0.53	3	3	0	16.00	0	0.9593
55	T Sidrap-Soppeng #55	55	-4.05112	119.81861						0.55	3	3	0	16.00	0	0.6396
56	T Sidrap-Soppeng #56	56	-4.05363	119.81964						0.41	2	2	0	16.00	0	0.0000
57	T Sidrap-Soppeng #57	57	-4.05644	119.82095						0.22	0	0	0	0.00	0	0.3198
58	T Sidrap-Soppeng #58	58	-4.05938	119.82214						0.43	1	1	0	101.00	0	0.3198
59	T Sidrap-Soppeng #59	59	-4.06188	119.82319						0.33	1	1	0	101.00	0	0.3198
60	T Sidrap-Soppeng #60	60	-4.06422	119.82414						0.30	1	1	0	101.00	0	0.6396
61	T Sidrap-Soppeng #61	61	-4.06646	119.82511						0.33	2	2	0	150.00	0	0.6396
62	T Sidrap-Soppeng #62	62	-4.06954	119.82642						1.28	2	2	0	150.00	0	0.6396
63	T Sidrap-Soppeng #63	63	-4.07218	119.82756						0.44	2	2	0	150.00	0	0.0000
64	T Sidrap-Soppeng #64	64	-4.07519	119.82866						0.38	0	0	0	0.00	0	0.3198
65	T Sidrap-Soppeng #65	65	-4.07801	119.83004						0.505	1	1	0	199.00	0	0.0000
66	T Sidrap-Soppeng #66	66	-4.08021	119.83093						0.443	0	0	0	0.00	0	0.3198
67	T Sidrap-Soppeng #67	67	-4.08592	119.83385						0.611	1	1	0	140.00	0	0.6396
68	T Sidrap-Soppeng #68	68	-4.08312	119.83207						1.367	2	2	0	97.50	0	0.3198
69	T Sidrap-Soppeng #69	69	-4.08826	119.83544						1.31	1	1	0	55.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	T Sidrap-Soppeng #70	70	-4.09074	119.83703						0.741	1	1	0	55.00	0	0.3198
71	T Sidrap-Soppeng #71	71	-4.09302	119.83847						1.768	1	0	1	0.00	53	0.6396
72	T Sidrap-Soppeng #72	72	-4.09572	119.84016						1.807	2	1	1	21.00	53	0.6396
73	T Sidrap-Soppeng #73	73	-4.09816	119.84179						0.465	2	1	1	21.00	53	0.3198
74	T Sidrap-Soppeng #74	74	-4.10105	119.84363						0.973	1	1	0	21.00	0	0.3198
75	T Sidrap-Soppeng #75	75	-4.10366	119.84521						0.509	1	1	0	21.00	0	0.6396
76	T Sidrap-Soppeng #76	76	-4.10605	119.84675						0.481	2	1	1	21.00	48	0.6396
77	T Sidrap-Soppeng #77	77	-4.10861	119.84835						1.634	2	0	2	0.00	59	1.2791
78	T Sidrap-Soppeng #78	78	-4.11098	119.84998						1.434	4	2	2	63.50	59	1.2791
79	T Sidrap-Soppeng #79	79	-4.11335	119.85147						1.16	4	2	2	63.50	59	1.2791
80	T Sidrap-Soppeng #80	80	-4.11577	119.85304						0.79	4	2	2	63.50	59	1.9187
81	T Sidrap-Soppeng #81	81	-4.11841	119.85467						0.76	6	2	4	63.50	54.5	1.5989
82	T Sidrap-Soppeng #82	82	-4.12137	119.85656						0.63	5	3	2	51.33	50	0.9593
83	T Sidrap-Soppeng #83	83	-4.12437	119.85846						0.42	3	1	2	27.00	50	0.9593
84	T Sidrap-Soppeng #84	84	-4.12713	119.86016						0.45	3	1	2	27.00	50	0.9593
85	T Sidrap-Soppeng #85	85	-4.12974	119.86181						0.45	3	1	2	27.00	50	0.3198
86	T Sidrap-Soppeng #86	86	-4.13260	119.86366						0.61	1	1	0	27.00	0	0.3198
87	T Sidrap-Soppeng #87	87	-4.13485	119.86508						0.59	1	0	1	0.00	38	0.6396
88	T Sidrap-Soppeng #88	88	-4.13694	119.86641						0.60	2	1	1	34.00	38	0.6396
89	T Sidrap-Soppeng #89	89	-4.13900	119.86761						0.69	2	1	1	34.00	38	0.3198
90	T Sidrap-Soppeng #90	90	-4.14132	119.86919						0.86	1	0	1	0.00	38	0.9593
91	T Sidrap-Soppeng #91	91	-4.14349	119.87050						0.36	3	0	3	0.00	46.6667	1.2791
92	T Sidrap-Soppeng #92	92	-4.14614	119.87140						0.48	4	0	4	0.00	44.75	1.5989
93	T Sidrap-Soppeng #93	93	-4.14915	119.87240						0.81	5	0	5	0.00	43	1.5989
94	T Sidrap-Soppeng #94	94	-4.15199	119.87334						1.06	5	1	4	54.00	44.25	1.5989
95	T Sidrap-Soppeng #95	95	-4.15508	119.87438						1.18	5	1	4	54.00	44.25	0.9593
96	T Sidrap-Soppeng #96	96	-4.15799	119.87533						0.78	3	1	2	54.00	39	1.2791
97	T Sidrap-Soppeng #97	97	-4.16078	119.87627						0.62	4	2	2	55.50	37	1.2791
98	T Sidrap-Soppeng #98	98	-4.16334	119.87710						0.93	4	2	2	55.50	61	1.2791
99	T Sidrap-Soppeng #99	99	-4.16581	119.87792						0.55	4	2	2	55.50	61	2.2384
100	T Sidrap-Soppeng #100	100	-4.16886	119.87818						0.38	7	1	6	57.00	53.5	1.9187
101	T Sidrap-Soppeng #101	101	-4.17171	119.87842						0.35	6	0	6	0.00	53.5	2.5582
102	T Sidrap-Soppeng #102	102	-4.17465	119.87870						0.28	8	2	6	34.00	53.5	2.8780
103	T Sidrap-Soppeng #103	103	-4.17764	119.87893						0.58	9	4	5	34.25	56.6	1.5989
104	T Sidrap-Soppeng #104	104	-4.18096	119.87922						0.35	5	3	2	38.33	60.5	1.5989
105	T Sidrap-Soppeng #105	105	-4.18407	119.87951						1.25	5	3	2	38.33	60.5	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	T Sidrap-Soppeng #106	106	-4.18730	119.87980						0.68	2	2	0	41.00	0	0.3198
107	T Sidrap-Soppeng #107	107	-4.19015	119.88006						0.36	1	1	0	47.00	0	0.0000
108	T Sidrap-Soppeng #108	108	-4.19282	119.88026						0.48	0	0	0	0.00	0	0.0000
109	T Sidrap-Soppeng #109	109	-4.19567	119.88051						0.25	0	0	0	0.00	0	0.0000
110	T Sidrap-Soppeng #110	110	-4.19890	119.88077						0.44	0	0	0	0.00	0	0.0000
111	T Sidrap-Soppeng #111	111	-4.20178	119.88098						0.25	0	0	0	0.00	0	0.0000
112	T Sidrap-Soppeng #112	112	-4.20450	119.88123						0.42	0	0	0	0.00	0	0.0000
113	T Sidrap-Soppeng #113	113	-4.20671	119.88155						0.26	0	0	0	0.00	0	0.0000
114	T Sidrap-Soppeng #114	114	-4.21006	119.88205						0.67	0	0	0	0.00	0	0.0000
115	T Sidrap-Soppeng #115	115	-4.21328	119.88258						0.00	0	0	0	0.00	0	0.3198
116	T Sidrap-Soppeng #116	116	-4.21597	119.88300						0.43	1	1	0	14.00	0	0.3198
117	T Sidrap-Soppeng #117	117	-4.21921	119.88344						0.31	1	1	0	14.00	0	0.3198
118	T Sidrap-Soppeng #118	118	-4.22203	119.88385						0.46	1	1	0	14.00	0	0.3198
119	T Sidrap-Soppeng #119	119	-4.22518	119.88431						0.42	1	1	0	14.00	0	0.3198
120	T Sidrap-Soppeng #120	120	-4.22814	119.88472						0.22	1	1	0	14.00	0	0.0000
121	T Sidrap-Soppeng #121	121	-4.23111	119.88524						0.46	0	0	0	0.00	0	0.3198
122	T Sidrap-Soppeng #122	122	-4.23438	119.88570						0.24	1	0	1	0.00	30	0.3198
123	T Sidrap-Soppeng #123	123	-4.23753	119.88618						0.23	1	0	1	0.00	30	0.3198
124	T Sidrap-Soppeng #124	124	-4.24063	119.88668						0.28	1	0	1	0.00	30	0.3198
125	T Sidrap-Soppeng #125	125	-4.24301	119.88691						0.24	1	0	1	0.00	30	0.6396
126	T Sidrap-Soppeng #126	126	-4.24616	119.88746						0.27	2	1	1	27.00	30	0.6396
127	T Sidrap-Soppeng #127	127	-4.24897	119.88784						0.26	2	1	1	27.00	30	0.3198
128	T Sidrap-Soppeng #128	128	-4.25123	119.88824						0.29	1	1	0	27.00	0	0.3198
129	T Sidrap-Soppeng #129	129	-4.25383	119.88859						0.31	1	1	0	27.00	0	0.3198
130	T Sidrap-Soppeng #130	130	-4.25668	119.88900						0.46	1	1	0	27.00	0	0.3198
131	T Sidrap-Soppeng #131	131	-4.25977	119.88947						0.77	1	1	0	27.00	0	0.0000
132	T Sidrap-Soppeng #132	132	-4.26275	119.88987						0.34	0	0	0	0.00	0	0.0000
133	T Sidrap-Soppeng #133	133	-4.26575	119.89026						0.26	0	0	0	0.00	0	0.0000
134	T Sidrap-Soppeng #134	134	-4.26904	119.89078						0.52	0	0	0	0.00	0	0.0000
135	T Sidrap-Soppeng #135	135	-4.27204	119.89121						0.46	0	0	0	0.00	0	0.0000
136	T Sidrap-Soppeng #136	136	-4.27513	119.89168						0.20	0	0	0	0.00	0	0.0000
137	T Sidrap-Soppeng #137	137	-4.27847	119.89210						0.35	0	0	0	0.00	0	0.3198
138	T Sidrap-Soppeng #138	138	-4.28155	119.89257						0.31	1	0	1	0.00	26	0.6396
139	T Sidrap-Soppeng #139	139	-4.28443	119.89299						0.18	2	1	1	63.00	26	0.6396
140	T Sidrap-Soppeng #140	140	-4.28728	119.89338						0.24	2	1	1	63.00	26	0.6396
141	T Sidrap-Soppeng #141	141	-4.28991	119.89376						0.51	2	1	1	63.00	26	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
142	T Sidrap-Soppeng #142	142	-4.29318	119.89423						0.46	2	1	1	63.00	26	0.6396
143	T Sidrap-Soppeng #143	143	-4.29618	119.89467						0.29	2	1	1	63.00	26	0.0000
144	T Sidrap-Soppeng #144	144	-4.29902	119.89502						0.28	0	0	0	0.00	0	0.0000
145	T Sidrap-Soppeng #145	145	-4.30207	119.89554						0.24	0	0	0	0.00	0	0.0000
146	T Sidrap-Soppeng #146	146	-4.30444	119.89682						0.35	0	0	0	0.00	0	0.0000
147	T Sidrap-Soppeng #147	147	-4.30721	119.89831						0.34	0	0	0	0.00	0	0.0000
148	T Sidrap-Soppeng #148	148	-4.30982	119.89971						0.29	0	0	0	0.00	0	0.0000
149	T Sidrap-Soppeng #149	149	-4.31248	119.90110						0.28	0	0	0	0.00	0	0.0000
150	T Sidrap-Soppeng #150	150	-4.31523	119.90255						0.83	0	0	0	0.00	0	0.0000
151	T Sidrap-Soppeng #151	151	-4.31802	119.90396						0.60	0	0	0	0.00	0	0.0000
152	T Sidrap-Soppeng #152	152	-4.32097	119.90548						0.71	0	0	0	0.00	0	0.0000
153	T Sidrap-Soppeng #153	153	-4.32420	119.90718						0.44	0	0	0	0.00	0	0.0000
154	T Sidrap-Soppeng #154	154	-4.32643	119.90834						0.42	0	0	0	0.00	0	0.0000
155	T Sidrap-Soppeng #155	155	-4.32869	119.90953						0.45	0	0	0	0.00	0	0.0000
156	T Sidrap-Soppeng #156	156	-4.33082	119.91064						0.30	0	0	0	0.00	0	0.0000
157	T Sidrap-Soppeng #157	157	-4.33318	119.91184						0.36	0	0	0	0.00	0	0.0000
158	T Sidrap-Soppeng #158	158	-4.33575	119.91297						0.49	0	0	0	0.00	0	0.0000
159	T Sidrap-Soppeng #159	159	-4.33827	119.91405						0.42	0	0	0	0.00	0	0.0000
160	T Sidrap-Soppeng #160	160	-4.34086	119.91516							0	0	0	0.00	0	0.0000
161	T Sidrap-Soppeng #161	161	-4.34398	119.91629							0	0	0	0.00	0	0.0000
162	T Sidrap-Soppeng #162	162	-4.34551	119.91678						0.37	0	0	0	0.00	0	0.0000
163	T Sidrap-Soppeng #163	163	-4.34751	119.91908						0.23	0	0	0	0.00	0	0.0000
164	T Sidrap-Soppeng #164	164	-4.34948	119.92128						0.31	0	0	0	0.00	0	0.0000
165	T Sidrap-Soppeng #165	165	-4.35133	119.92325						0.19	0	0	0	0.00	0	0.0000

Lampiran 25 Data Eksisting Transmisi Soppeng – Bone

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	T Soppeng - Bone #1	1	-4.35101	119.92460						0.17	0	0	0	0.00	0	0.0000
2	T Soppeng - Bone #2	2	-4.35126	119.92596						0	0	0	0	0.00	0	0.0000
3	T Soppeng - Bone #3	3	-4.35302	119.92824						0.06	0	0	0	0.00	0	0.0000
4	T Soppeng - Bone #4	4	-4.35485	119.93032						0	0	0	0	0.00	0	0.9593
5	T Soppeng - Bone #5	5	-4.35660	119.93250						0	3	3	0	33.00	0	1.2791
6	T Soppeng - Bone #6	6	-4.35828	119.93482						0.72	4	4	0	30.00	0	1.2791
7	T Soppeng - Bone #7	7	-4.36006	119.93710						0.49	4	4	0	30.00	0	1.2791
8	T Soppeng - Bone #8	8	-4.36180	119.93934						0	4	4	0	30.00	0	0.9593
9	T Soppeng - Bone #9	9	-4.36373	119.94180						0.82	3	3	0	22.33	0	0.3198
10	T Soppeng - Bone #10	10	-4.36549	119.94402						0.15	1	1	0	21.00	0	0.0000
11	T Soppeng - Bone #11	11	-4.36742	119.94659						0	0	0	0	0.00	0	0.0000
12	T Soppeng - Bone #12	12	-4.36901	119.94870						0.96	0	0	0	0.00	0	0.0000
13	T Soppeng - Bone #13	13	-4.37071	119.95099						0.17	0	0	0	0.00	0	0.0000
14	T Soppeng - Bone #14	14	-4.37229	119.95311						0	0	0	0	0.00	0	0.0000
15	T Soppeng - Bone #15	15	-4.37411	119.95556						0.45	0	0	0	0.00	0	0.0000
16	T Soppeng - Bone #16	16	-4.37579	119.95778						0	0	0	0	0.00	0	0.0000
17	T Soppeng - Bone #17	17	-4.37768	119.96031						0.00	0	0	0	0.00	0	0.0000
18	T Soppeng - Bone #18	18	-4.37940	119.96252							0	0	0	0.00	0	0.0000
19	T Soppeng - Bone #19	19	-4.38093	119.96464						0.25	0	0	0	0.00	0	0.0000
20	T Soppeng - Bone #20	20	-4.38265	119.96696						0.30	0	0	0	0.00	0	0.0000
21	T Soppeng - Bone #21	21	-4.38463	119.96957						0.69	0	0	0	0.00	0	0.3198
22	T Soppeng - Bone #22	22	-4.38626	119.97174						0.00	1	0	1	0.00	40	0.3198
23	T Soppeng - Bone #23	23	-4.38799	119.97409						0.78	1	0	1	0.00	40	0.6396
24	T Soppeng - Bone #24	24	-4.39062	119.97608						0.00	2	0	2	0.00	88	0.6396
25	T Soppeng - Bone #25	25	-4.39294	119.97785						0.00	2	0	2	0.00	88	0.6396
26	T Soppeng - Bone #26	26	-4.39514	119.97950						0.00	2	0	2	0.00	88	0.9593
27	T Soppeng - Bone #27	27	-4.39603	119.98183						0.50	3	1	2	37.00	88	0.9593
28	T Soppeng - Bone #28	28	-4.39710	119.98469						0.73	3	1	2	37.00	88	0.3198
29	T Soppeng - Bone #29	29	-4.39814	119.98754						0.53	1	1	0	37.00	0	0.3198
30	T Soppeng - Bone #30	30	-4.39938	119.98913						0.59	1	0	1	0.00	30	0.9593
31	T Soppeng - Bone #31	31	-4.40086	119.99211						0.53	3	2	1	71.50	30	0.9593
32	T Soppeng - Bone #32	32	-4.40231	119.99507						0.21	3	2	1	71.50	30	0.9593
33	T Soppeng - Bone #33	33	-4.40371	119.99782						0.12	3	2	1	71.50	30	0.9593

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	T Soppeng - Bone #34	34	-4.40489	120.00018						1.00	3	2	1	71.50	30	0.3198
35	T Soppeng - Bone #35	35	-4.40599	120.00243						0.07	1	1	0	46.00	0	0.3198
36	T Soppeng - Bone #36	36	-4.40689	120.00432						0.23	1	1	0	46.00	0	0.0000
37	T Soppeng - Bone #37	37	-4.40824	120.00720						0.12	0	0	0	0.00	0	0.0000
38	T Soppeng - Bone #38	38	-4.41044	120.00945						0.12	0	0	0	0.00	0	0.0000
39	T Soppeng - Bone #39	39	-4.41251	120.01146						0.20	0	0	0	0.00	0	0.6396
40	T Soppeng - Bone #40	40	-4.41488	120.01387						0.23	2	2	0	25.00	0	0.6396
41	T Soppeng - Bone #41	41	-4.41711	120.01601						1.05	2	2	0	25.00	0	0.6396
42	T Soppeng - Bone #42	42	-4.41937	120.01822						0.29	2	2	0	25.00	0	0.6396
43	T Soppeng - Bone #43	43	-4.42149	120.02026						0.97	2	2	0	25.00	0	0.9593
44	T Soppeng - Bone #44	44	-4.42399	120.02274						0.45	3	3	0	24.00	0	0.6396
45	T Soppeng - Bone #45	45	-4.42500	120.02535						1.11	2	2	0	24.00	0	0.3198
46	T Soppeng - Bone #46	46	-4.42605	120.02824						0.48	1	1	0	22.00	0	0.3198
47	T Soppeng - Bone #47	47	-4.42717	120.03087						1.46	1	1	0	22.00	0	0.3198
48	T Soppeng - Bone #48	48	-4.42805	120.03325						1.72	1	1	0	22.00	0	0.3198
49	T Soppeng - Bone #49	49	-4.42867	120.03528						0.28	1	1	0	22.00	0	0.0000
50	T Soppeng - Bone #50	50	-4.42969	120.03828						0.29	0	0	0	0.00	0	0.0000
51	T Soppeng - Bone #51	51	-4.43134	120.04122						1.44	0	0	0	0.00	0	0.0000
52	T Soppeng - Bone #52	52	-4.43197	120.04359						0.79	0	0	0	0.00	0	0.0000
53	T Soppeng - Bone #53	53	-4.43278	120.04643						0.39	0	0	0	0.00	0	0.0000
54	T Soppeng - Bone #54	54	-4.43352	120.04859						0.35	0	0	0	0.00	0	0.0000
55	T Soppeng - Bone #55	55	-4.43451	120.05116						0.50	0	0	0	0.00	0	0.0000
56	T Soppeng - Bone #56	56	-4.43558	120.05405						0.25	0	0	0	0.00	0	0.0000
57	T Soppeng - Bone #57	57	-4.43651	120.05660						0.25	0	0	0	0.00	0	0.0000
58	T Soppeng - Bone #58	58	-4.43753	120.05932						0.00	0	0	0	0.00	0	0.0000
59	T Soppeng - Bone #59	59	-4.43857	120.06221						0.00	0	0	0	0.00	0	0.0000
60	T Soppeng - Bone #60	60	-4.43964	120.06503						0.88	0	0	0	0.00	0	0.0000
61	T Soppeng - Bone #61	61	-4.44052	120.06743						2.75	0	0	0	0.00	0	0.0000
62	T Soppeng - Bone #62	62	-4.44184	120.07092						0.60	0	0	0	0.00	0	0.0000
63	T Soppeng - Bone #63	63	-4.44267	120.07345						0.50	0	0	0	0.00	0	0.0000
64	T Soppeng - Bone #64	64	-4.44372	120.07616						0.25	0	0	0	0.00	0	0.0000
65	T Soppeng - Bone #65	65	-4.44481	120.07909						0.5	0	0	0	0.00	0	0.0000
66	T Soppeng - Bone #66	66	-4.44621	120.08288						1.56	0	0	0	0.00	0	0.0000
67	T Soppeng - Bone #67	67	-4.44727	120.08591						0.33	0	0	0	0.00	0	0.0000
68	T Soppeng - Bone #68	68	-4.44809	120.08819						2.25	0	0	0	0.00	0	0.3198
69	T Soppeng - Bone #69	69	-4.44921	120.09124						2.06	1	1	0	104.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	T Soppeng - Bone #70	70	-4.45035	120.09424						1.09	1	1	0	104.00	0	0.3198
71	T Soppeng - Bone #71	71	-4.45138	120.09700						0.25	1	1	0	104.00	0	0.3198
72	T Soppeng - Bone #72	72	-4.45261	120.10026						0.25	1	1	0	104.00	0	0.0000
73	T Soppeng - Bone #73	73	-4.45345	120.10262						0.67	0	0	0	0.00	0	0.0000
74	T Soppeng - Bone #74	74	-4.45424	120.10497						0.63	0	0	0	0.00	0	0.0000
75	T Soppeng - Bone #75	75	-4.45504	120.10719						2.4	0	0	0	0.00	0	0.0000
76	T Soppeng - Bone #76	76	-4.45596	120.10985						1.94	0	0	0	0.00	0	0.0000
77	T Soppeng - Bone #77	77	-4.45711	120.11285						1.47	0	0	0	0.00	0	0.0000
78	T Soppeng - Bone #78	78	-4.45802	120.11546						1.93	0	0	0	0.00	0	0.3198
79	T Soppeng - Bone #79	79	-4.45926	120.11904						0.64	1	0	1	0.00	45	0.6396
80	T Soppeng - Bone #80	80	-4.46044	120.12248						0.99	2	0	2	0.00	40	0.3198
81	T Soppeng - Bone #81	81	-4.46137	120.12500						0.21	1	0	1	0.00	35	0.3198
82	T Soppeng - Bone #82	82	-4.46241	120.12784						0.34	1	0	1	0.00	35	0.3198
83	T Soppeng - Bone #83	83	-4.46370	120.13160						0.61	1	0	1	0.00	35	0.6396
84	T Soppeng - Bone #84	84	-4.46476	120.13457						0.22	2	0	2	0.00	46	0.6396
85	T Soppeng - Bone #85	85	-4.46593	120.13763						0.33	2	1	1	32.00	57	0.6396
86	T Soppeng - Bone #86	86	-4.46699	120.14038						0.24	2	2	0	33.50	0	0.6396
87	T Soppeng - Bone #87	87	-4.46808	120.14321						0.23	2	2	0	33.50	0	0.6396
88	T Soppeng - Bone #88	88	-4.46883	120.14514						0.19	2	2	0	33.50	0	0.6396
89	T Soppeng - Bone #89	89	-4.46978	120.14773						0.43	2	2	0	33.50	0	0.6396
90	T Soppeng - Bone #90	90	-4.47088	120.15054						0.25	2	2	0	33.50	0	0.3198
91	T Soppeng - Bone #91	91	-4.47208	120.15364						0.28	1	1	0	35.00	0	0.3198
92	T Soppeng - Bone #92	92	-4.47300	120.15619						0.33	1	1	0	35.00	0	0.0000
93	T Soppeng - Bone #93	93	-4.47425	120.15927						0.94	0	0	0	0.00	0	0.0000
94	T Soppeng - Bone #94	94	-4.47513	120.16169						1.68	0	0	0	0.00	0	0.0000
95	T Soppeng - Bone #95	95	-4.47623	120.16453						3.85	0	0	0	0.00	0	0.0000
96	T Soppeng - Bone #96	96	-4.47711	120.16674						4.32	0	0	0	0.00	0	0.0000
97	T Soppeng - Bone #97	97	-4.47796	120.16894						3.29	0	0	0	0.00	0	0.3198
98	T Soppeng - Bone #98	98	-4.47887	120.17137						1.08	1	1	0	71.00	0	0.6396
99	T Soppeng - Bone #99	99	-4.48001	120.17433						0.19	2	2	0	41.50	0	0.9593
100	T Soppeng - Bone #100	100	-4.48126	120.17767						0.36	3	3	0	38.67	0	0.9593
101	T Soppeng - Bone #101	101	-4.48237	120.18030						0.20	3	3	0	38.67	0	0.9593
102	T Soppeng - Bone #102	102	-4.48339	120.18330						0.23	3	3	0	38.67	0	0.3198
103	T Soppeng - Bone #103	103	-4.48431	120.18574						0.21	1	1	0	71.00	0	0.3198
104	T Soppeng - Bone #104	104	-4.48555	120.18890						0.22	1	1	0	48.00	0	0.3198
105	T Soppeng - Bone #105	105	-4.48689	120.19174						0.26	1	1	0	48.00	0	0.3198

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
106	T Soppeng - Bone #106	106	-4.48822	120.19459						0.81	1	1	0	48.00	0	0.3198
107	T Soppeng - Bone #107	107	-4.48955	120.19750						0.19	1	1	0	48.00	0	0.3198
108	T Soppeng - Bone #108	108	-4.49065	120.20044						0.02	1	1	0	48.00	0	0.3198
109	T Soppeng - Bone #109	109	-4.49231	120.20343						0.34	1	1	0	49.00	0	0.3198
110	T Soppeng - Bone #110	110	-4.49334	120.20559						0.36	1	1	0	49.00	0	0.6396
111	T Soppeng - Bone #111	111	-4.49451	120.20805						0.30	2	2	0	99.00	0	0.6396
112	T Soppeng - Bone #112	112	-4.49570	120.21055						0.30	2	2	0	99.00	0	0.9593
113	T Soppeng - Bone #113	113	-4.49657	120.21251						0.18	3	3	0	68.67	0	0.9593
114	T Soppeng - Bone #114	114	-4.49752	120.21445						0.34	3	3	0	79.33	0	0.3198
115	T Soppeng - Bone #115	115	-4.49877	120.21689						0.44	1	1	0	40.00	0	0.3198
116	T Soppeng - Bone #116	116	-4.50000	120.21960						0.67	1	1	0	40.00	0	0.6396
117	T Soppeng - Bone #117	117	-4.50143	120.22271						0.98	2	2	0	90.00	0	0.6396
118	T Soppeng - Bone #118	118	-4.50228	120.22443						0.72	2	2	0	90.00	0	0.3198
119	T Soppeng - Bone #119	119	-4.50357	120.22715						0.59	1	1	0	140.00	0	0.3198
120	T Soppeng - Bone #120	120	-4.50469	120.22949						0.28	1	1	0	140.00	0	0.6396
121	T Soppeng - Bone #121	121	-4.50584	120.23211						0.41	2	2	0	109.00	0	0.6396
122	T Soppeng - Bone #122	122	-4.50716	120.23504						0.26	2	1	1	78.00	27	0.9593
123	T Soppeng - Bone #123	123	-4.50848	120.23796						0.24	3	1	2	78.00	36.5	1.9187
124	T Soppeng - Bone #124	124	-4.50962	120.24048						0.34	6	4	2	50.25	36.5	1.9187
125	T Soppeng - Bone #125	125	-4.51085	120.24310						0.27	6	4	2	50.25	36.5	2.5582
126	T Soppeng - Bone #126	126	-4.51199	120.24564						0.24	8	7	1	38.57	46	3.1978
127	T Soppeng - Bone #127	127	-4.51342	120.24871						0.19	10	9	1	45.44	46	2.8780
128	T Soppeng - Bone #128	128	-4.51405	120.25119						0.71	9	9	0	45.44	0	2.5582
129	T Soppeng - Bone #129	129	-4.51469	120.25373						0.93	8	8	0	48.00	0	1.9187
130	T Soppeng - Bone #130	130	-4.51536	120.25647						0.76	6	6	0	47.67	0	1.5989
131	T Soppeng - Bone #131	131	-4.51613	120.25942						0.83	5	5	0	35.40	0	0.6396
132	T Soppeng - Bone #132	132	-4.51687	120.26258						0.90	2	2	0	30.00	0	0.3198
133	T Soppeng - Bone #133	133	-4.51764	120.26539						0.89	1	1	0	49.00	0	0.6396
134	T Soppeng - Bone #134	134	-4.51827	120.26793						0.58	2	2	0	40.00	0	1.2791
135	T Soppeng - Bone #135	135	-4.51775	120.27083						1.14	4	4	0	28.75	0	1.2791
136	T Soppeng - Bone #136	136	-4.51702	120.27249						1.62	4	4	0	28.75	0	0.0000

Lampiran 26 Data Eksisting Transmisi Sungguminasa – Lanna

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Sungguminasa - Lanna	1	-5.23182	119.46270						0.05	2	1	1	-32.00	21	32.0000
2	SUTT 150 kV Sungguminasa - Lanna	2	-5.23226	119.46604						0.07	4	2	2	-22.50	41.5	22.5000
3	SUTT 150 kV Sungguminasa - Lanna	3	-5.23256	119.46919						0.08	4	2	2	-22.50	41.5	22.5000
4	SUTT 150 kV Sungguminasa - Lanna	4	-5.23291	119.47241						0.39	4	3	1	-23.33	62	23.3333
5	SUTT 150 kV Sungguminasa - Lanna	5	-5.23323	119.47579						0.11	3	3	0	-16.67	0	16.6667
6	SUTT 150 kV Sungguminasa - Lanna	6	-5.23346	119.47860						0.1	3	3	0	-16.67	0	16.6667
7	SUTT 150 kV Sungguminasa - Lanna	7	-5.23374	119.48265						0.11	1	1	0	-25.00	0	25.0000
8	SUTT 150 kV Sungguminasa - Lanna	8	-5.23292	119.48544						0.34	2	2	0	-31.00	0	31.0000
9	SUTT 150 kV Sungguminasa - Lanna	9	-5.23433	119.48842						0.34	0	0	0	0.00	0	0.0000
10	SUTT 150 kV Sungguminasa - Lanna	10	-5.23576	119.49130						0.07	3	3	0	-22.33	0	22.3333
11	SUTT 150 kV Sungguminasa - Lanna	11	-5.23718	119.49421						0.09	6	6	0	-20.67	0	20.6667
12	SUTT 150 kV Sungguminasa - Lanna	12	-5.23861	119.49714						0.1						
13	SUTT 150 kV Sungguminasa - Lanna	13	-5.23882	119.50065						0.38						
14	SUTT 150 kV Sungguminasa - Lanna	14	-5.24130	119.50272						0.09						
15	SUTT 150 kV Sungguminasa - Lanna	15	-5.24092	119.50567						0.31	8	8	0	-22.63	0	22.6250
16	SUTT 150 kV Sungguminasa - Lanna	16	-5.23988	119.50865						0.37	9	9	0	-24.11	0	24.1111
17	SUTT 150 kV Sungguminasa - Lanna	17	-5.23962	119.51152						0.33	7	7	0	-24.14	0	24.1429
18	SUTT 150 kV Sungguminasa - Lanna	18	-5.23902	119.51437						0.20	6	6	0	-25.17	0	25.1667
19	SUTT 150 kV Sungguminasa - Lanna	19	-5.23826	119.51737						0.07						
20	SUTT 150 kV Sungguminasa - Lanna	20	-5.23868	119.51976						0.08	7	6	1	-35.33	72	35.3333
21	SUTT 150 kV Sungguminasa - Lanna	21	-5.23928	119.52309						0.32						
22	SUTT 150 kV Sungguminasa - Lanna	22	-5.23960	119.52567						0.36	8	8	0	-25.63	0	25.6250
23	SUTT 150 kV Sungguminasa - Lanna	23	-5.23926	119.52770						0.06	7	7	0	-27.29	0	27.2857
24	SUTT 150 kV Sungguminasa - Lanna	24	-5.23948	119.53101						0.05	7	7	0	-27.29	0	27.2857
25	SUTT 150 kV Sungguminasa - Lanna	25	-5.23972	119.53389						0.32	8	8	0	-19.75	0	19.7500
26	SUTT 150 kV Sungguminasa - Lanna	26	-5.23996	119.53732						0.34	6	6	0	-19.50	0	19.5000
27	SUTT 150 kV Sungguminasa - Lanna	27	-5.24041	119.53945						0.30	7	7	0	-19.29	0	19.2857
28	SUTT 150 kV Sungguminasa - Lanna	28	-5.24088	119.54275						0.28	8	8	0	-17.38	0	17.3750
29	SUTT 150 kV Sungguminasa - Lanna	29	-5.24128	119.54597						0.35	10	10	0	-18.80	0	18.8000
30	SUTT 150 kV Sungguminasa - Lanna	30	-5.24109	119.54919					2.21	0.26	14	14	0	-22.00	0	22.0000
31	SUTT 150 kV Sungguminasa - Lanna	31	-5.23993	119.55163						0.22	15	15	0	-21.00	0	21.0000
32	SUTT 150 kV Sungguminasa - Lanna	32	-5.23825	119.55496						0.08	14	14	0	-20.50	0	20.5000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	SUTT 150 kV Sungguminasa - Lanna	33	-5.23701	119.55745						0.06	12	12	0	-21.83	0	21.8333
34	SUTT 150 kV Sungguminasa - Lanna	34	-5.23583	119.55986						0.09	12	12	0	-23.42	0	23.4167
35	SUTT 150 kV Sungguminasa - Lanna	35	-5.23523	119.56314					1.59	0.09	15	15	0	-22.80	0	22.8000
36	SUTT 150 kV Sungguminasa - Lanna	36	-5.23464	119.56607					1.87	0.31	15	15	0	-19.80	0	19.8000
37	SUTT 150 kV Sungguminasa - Lanna	37	-5.23481	119.56777						0.31	14	14	0	-19.57	0	19.5714
38	SUTT 150 kV Sungguminasa - Lanna	38	-5.23541	119.57178						0.31	13	13	0	-26.69	0	26.6923
39	SUTT 150 kV Sungguminasa - Lanna	39	-5.23568	119.57383						0.31	9	9	0	-30.89	0	30.8889
40	SUTT 150 kV Sungguminasa - Lanna	40	-5.23577	119.57718						0.31	8	8	0	-31.75	0	31.7500
41	SUTT 150 kV Sungguminasa - Lanna	41	-5.23611	119.57986						0.31	7	7	0	-19.00	0	19.0000
42	SUTT 150 kV Sungguminasa - Lanna	42	-5.23624	119.58218						0.41	6	6	0	-18.83	0	18.8333
43	SUTT 150 kV Sungguminasa - Lanna	43	-5.23653	119.58419						0.62	2	2	0	-22.00	0	22.0000
44	SUTT 150 kV Sungguminasa - Lanna	44	-5.23573	119.58615						0.31	6	6	0	-32.17	0	32.1667
45	SUTT 150 kV Sungguminasa - Lanna	45	-5.23456	119.58945						0.31	5	5	0	-35.40	0	35.4000
46	SUTT 150 kV Sungguminasa - Lanna	46	-5.23369	119.59269						0.31	4	4	0	-26.25	0	26.2500
47	SUTT 150 kV Sungguminasa - Lanna	47	-5.23246	119.59639						0.31	6	6	0	-21.17	0	21.1667
48	SUTT 150 kV Sungguminasa - Lanna	48	-5.23183	119.59851						0.31	6	6	0	-21.17	0	21.1667
49	SUTT 150 kV Sungguminasa - Lanna	49	-5.23288	119.60321						0.31						
50	SUTT 150 kV Sungguminasa - Lanna	50	-5.23378	119.60625						0.31						
51	SUTT 150 kV Sungguminasa - Lanna	51	-5.23584	119.60793						0.31						
52	SUTT 150 kV Sungguminasa - Lanna	52	-5.23719	119.60908						0.31	8	8	0	-25.88	0	25.8750
53	SUTT 150 kV Sungguminasa - Lanna	53	-5.23809	119.61166						0.31	10	10	0	-23.70	0	23.7000
54	SUTT 150 kV Sungguminasa - Lanna	54	-5.23844	119.61483						0.31	9	9	0	-20.11	0	20.1111
55	SUTT 150 kV Sungguminasa - Lanna	55	-5.23762	119.61810						0.41	5	5	0	-22.80	0	22.8000
56	SUTT 150 kV Sungguminasa - Lanna	56	-5.23704	119.62021						0.31	4	4	0	-26.00	0	26.0000
57	SUTT 150 kV Sungguminasa - Lanna	57	-5.23894	119.62332						0.31	4	4	0	-26.00	0	26.0000
58	SUTT 150 kV Sungguminasa - Lanna	58	-5.23927	119.62589						0.31	4	4	0	-24.50	0	24.5000
59	SUTT 150 kV Sungguminasa - Lanna	59	-5.24001	119.62999						0.30	3	3	0	-24.00	0	24.0000
63	SUTT 150 kV Sungguminasa - Lanna	63	-5.24042	119.64044						0.31	8	7	1	-27.00	28	27.0000
64	SUTT 150 kV Sungguminasa - Lanna	64	-5.24010	119.64484						0.31	6	5	1	-31.60	28	31.6000
65	SUTT 150 kV Sungguminasa - Lanna	65	-5.24011	119.64832						0.31	4	3	1	-32.00	28	32.0000
66	SUTT 150 kV Sungguminasa - Lanna	66 A	-5.24426	119.64901						0.31	5	4	1	-35.75	28	35.7500
67	SUTT 150 kV Sungguminasa - Lanna	66 B	-5.24762	119.64912						0.31	5	4	1	-35.75	28	35.7500
68	SUTT 150 kV Sungguminasa - Lanna	67	-5.25089	119.65065						0.31	5	4	1	-23.25	28	23.2500
69	SUTT 150 kV Sungguminasa - Lanna	68	-5.25078	119.65272						0.31	3	2	1	-13.50	28	13.5000
70	SUTT 150 kV Sungguminasa - Lanna	69	-5.25126	119.65452						0.31	4	4	0	-23.25	0	23.2500

Lampiran 27 Data Eksisting Transmisi Sungguminasa – Tallasa

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Sungguminasa-Tallasa	38	-5.23110	119.46140				1.48		0.612	5	4	1	-56.75	21	1.5990
2	SUTT 150 kV Sungguminasa-Tallasa	39	-5.23237	119.45928				1.27			3	2	1	-38.50	21	0.9590
3	SUTT 150 kV Sungguminasa-Tallasa	40	-5.23326	119.45732							3	2	1	-38.50	21	0.9590
4	SUTT 150 kV Sungguminasa-Tallasa	41	-5.23571	119.45560							3	2	1	-38.50	21	0.9590
5	SUTT 150 kV Sungguminasa-Tallasa	42	-5.23838	119.45365							5	5	0	-74.00	0	1.5990
6	SUTT 150 kV Sungguminasa-Tallasa	43	-5.24101	119.45173							4	4	0	-88.50	0	1.2790
7	SUTT 150 kV Sungguminasa-Tallasa	44	-5.24365	119.44984							3	3	0	-87.33	0	0.9590
8	SUTT 150 kV Sungguminasa-Tallasa	45	-5.24623	119.44797							4	4	0	-80.25	0	1.2790
9	SUTT 150 kV Sungguminasa-Tallasa	46	-5.24932	119.44769							6	6	0	-63.17	0	1.9190
10	SUTT 150 kV Sungguminasa-Tallasa	47	-5.25244	119.44782							6	6	0	-46.00	0	1.9190
11	SUTT 150 kV Sungguminasa-Tallasa	48	-5.25534	119.44718							4	4	0	-51.50	0	1.2790
12	SUTT 150 kV Sungguminasa-Tallasa	49	-5.25830	119.44692							4	4	0	-51.50	0	1.2790
13	SUTT 150 kV Sungguminasa-Tallasa	50	-5.26139	119.44662							2	2	0	-47.50	0	0.6400
14	SUTT 150 kV Sungguminasa-Tallasa	51	-5.26447	119.44638							2	2	0	-40.00	0	0.6400
15	SUTT 150 kV Sungguminasa-Tallasa	52	-5.26719	119.44593							1	0	1	0.00	61	0.3200
16	SUTT 150 kV Sungguminasa-Tallasa	53	-5.27024	119.44586						0.329	1	0	1	0.00	61	0.3200
17	SUTT 150 kV Sungguminasa-Tallasa	54	-5.27344	119.44564						0.26	1	0	1	0.00	61	0.3200
18	SUTT 150 kV Sungguminasa-Tallasa	55	-5.28000	119.44501						0.26	2	0	2	0.00	54.5	0.6400
19	SUTT 150 kV Sungguminasa-Tallasa	56	-5.27944	119.44489						0.93	4	0	4	0.00	48.5	1.2790
20	SUTT 150 kV Sungguminasa-Tallasa	57	-5.28220	119.44472						0.42	5	1	4	-59.00	48.5	1.5990
21	SUTT 150 kV Sungguminasa-Tallasa	58	-5.28498	119.44415						0.49	4	1	3	-59.00	44.3333	1.2790
22	SUTT 150 kV Sungguminasa-Tallasa	59	-5.28869	119.44537						1.04	3	1	2	-59.00	42.5	0.9590
23	SUTT 150 kV Sungguminasa-Tallasa	60	-5.29147	119.44555						0.00	2	1	1	-59.00	37	0.6400
24	SUTT 150 kV Sungguminasa-Tallasa	61	-5.29477	119.44627							1	1	0	-59.00	0	0.3200
25	SUTT 150 kV Sungguminasa-Tallasa	62	-5.29754	119.44673							1	1	0	-59.00	0	0.3200
26	SUTT 150 kV Sungguminasa-Tallasa	63	-5.30037	119.44721							0	0	0	0.00	0	0.0000
27	SUTT 150 kV Sungguminasa-Tallasa	64	-5.30325	119.44769						0.62	0	0	0	0.00	0	0.0000
28	SUTT 150 kV Sungguminasa-Tallasa	65	-5.30621	119.44889						0.80	0	0	0	0.00	0	0.0000
29	SUTT 150 kV Sungguminasa-Tallasa	66	-5.30917	119.44949						0.57	0	0	0	0.00	0	0.0000
30	SUTT 150 kV Sungguminasa-Tallasa	67	-5.31227	119.44909							0	0	0	0.00	0	0.0000
31	SUTT 150 kV Sungguminasa-Tallasa	68	-5.31463	119.45017						0.32	0	0	0	0.00	0	0.0000
32	SUTT 150 kV Sungguminasa-Tallasa	69	-5.31837	119.45055						1.37	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	SUTT 150 kV Sungguminasa-Tallasa	70	-5.31852	119.45045						-	0	0	0	0.00	0	0.0000
34	SUTT 150 kV Sungguminasa-Tallasa	71	-5.32428	119.45164						-	2	2	0	-40.50	0	0.6400
35	SUTT 150 kV Sungguminasa-Tallasa	72	-5.32725	119.45203						-	4	4	0	-46.50	0	1.2790
36	SUTT 150 kV Sungguminasa-Tallasa	73	-5.32966	119.45167						-	5	5	0	-43.80	0	1.5990
37	SUTT 150 kV Sungguminasa-Tallasa	74	-5.33319	119.45263						-	5	5	0	-43.80	0	1.5990
38	SUTT 150 kV Sungguminasa-Tallasa	75	-5.33522	119.45441						-	5	5	0	-37.40	0	1.5990
39	SUTT 150 kV Sungguminasa-Tallasa	76	-5.33804	119.45610						-	6	6	0	-38.17	0	1.9190
40	SUTT 150 kV Sungguminasa-Tallasa	77	-5.34053	119.45762						-	5	5	0	-37.60	0	1.5990
41	SUTT 150 kV Sungguminasa-Tallasa	78	-5.34308	119.45894						-	4	4	0	-26.50	0	1.2790
42	SUTT 150 kV Sungguminasa-Tallasa	79	-5.34535	119.46077						-	5	4	1	-26.50	43	1.5990
43	SUTT 150 kV Sungguminasa-Tallasa	80	-5.34767	119.46255						-	5	4	1	-31.25	43	1.5990
44	SUTT 150 kV Sungguminasa-Tallasa	81	-5.34898	119.46443						-	6	5	1	-27.20	43	1.9190
45	SUTT 150 kV Sungguminasa-Tallasa	82	-5.35269	119.46599						-	6	6	0	-40.33	0	1.9190
46	SUTT 150 kV Sungguminasa-Tallasa	83	-5.35619	119.46779						-	10	9	1	-41.67	39	3.1980
47	SUTT 150 kV Sungguminasa-Tallasa	84	-5.35799	119.46931						-	12	11	1	-41.00	39	3.8370
48	SUTT 150 kV Sungguminasa-Tallasa	85	-5.36093	119.46976						-	10	9	1	-45.44	39	3.1980
49	SUTT 150 kV Sungguminasa-Tallasa	86	-5.36416	119.47028						-	8	7	1	-48.29	39	2.5580
50	SUTT 150 kV Sungguminasa-Tallasa	87	-5.36707	119.47065						-	7	6	1	-51.00	39	2.2380
51	SUTT 150 kV Sungguminasa-Tallasa	88	-5.37010	119.47105						-	3	3	0	-42.00	0	0.9590
52	SUTT 150 kV Sungguminasa-Tallasa	89	-5.37264	119.47166						-	3	2	1	-37.00	60	0.9590
53	SUTT 150 kV Sungguminasa-Tallasa	90	-5.37674	119.47179						-	3	2	1	-39.00	60	0.9590
54	SUTT 150 kV Sungguminasa-Tallasa	91	-5.37935	119.47226						-	4	3	1	-41.33	60	1.2790
55	SUTT 150 kV Sungguminasa-Tallasa	92	-5.38248	119.47308						-	3	2	1	-43.50	60	0.9590
56	SUTT 150 kV Sungguminasa-Tallasa	93	-5.38523	119.47351						-	2	1	1	-41.00	60	0.6400
57	SUTT 150 kV Sungguminasa-Tallasa	94	-5.38794	119.47395						-	0	0	0	0.00	0	0.0000
58	SUTT 150 kV Sungguminasa-Tallasa	95	-5.39101	119.47437						-	1	1	0	-28.00	0	0.3200
59	SUTT 150 kV Sungguminasa-Tallasa	96	-5.39399	119.47455						-	2	1	1	-28.00	84	0.6400
60	SUTT 150 kV Sungguminasa-Tallasa	97	-5.39702	119.47530						-	2	1	1	-28.00	84	0.6400
61	SUTT 150 kV Sungguminasa-Tallasa	98	-5.40018	119.47593						-	3	2	1	-34.00	84	0.9590
62	SUTT 150 kV Sungguminasa-Tallasa	99	-5.40337	119.47647						-	3	2	1	-34.00	84	0.9590
63	SUTT 150 kV Sungguminasa-Tallasa	100	-5.40659	119.47682						-	2	1	1	-40.00	84	0.6400
64	SUTT 150 kV Sungguminasa-Tallasa	101	-5.40934	119.47750						-	2	1	1	-40.00	84	0.6400
65	SUTT 150 kV Sungguminasa-Tallasa	102	-5.41255	119.47792						-	1	1	0	-40.00	0	0.3200
66	SUTT 150 kV Sungguminasa-Tallasa	103	-5.41568	119.47834						-	2	1	1	-33.00	84	0.6400
67	SUTT 150 kV Sungguminasa-Tallasa	104	-5.41875	119.47880						-	1	1	0	-33.00	0	0.3200

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
68	SUTT 150 kV Sungguminasa-Tallasa	105	-5.42182	119.47926						-	2	1	1	-33.00	40	0.6400
69	SUTT 150 kV Sungguminasa-Tallasa	106	-5.42490	119.47979						-	4	2	2	-36.50	52	1.2790
70	SUTT 150 kV Sungguminasa-Tallasa	107	-5.42805	119.48034						-	5	3	2	-36.67	52	1.5990
71	SUTT 150 kV Sungguminasa-Tallasa	108	-5.43112	119.48083						-	5	3	2	-38.33	52	1.5990
72	SUTT 150 kV Sungguminasa-Tallasa	109	-5.43453	119.48134						-	5	3	2	-38.33	52	1.5990
73	SUTT 150 kV Sungguminasa-Tallasa	110	-5.43801	119.48184						-	4	3	1	-38.33	64	1.2790
74	SUTT 150 kV Sungguminasa-Tallasa	111	-5.44029	119.48218						-	4	4	0	-47.25	0	1.2790
75	SUTT 150 kV Sungguminasa-Tallasa	112	-5.44332	119.48128						-	5	5	0	-45.40	0	1.5990
76	SUTT 150 kV Sungguminasa-Tallasa	113	-5.44598	119.48049						-	4	4	0	-47.50	0	1.2790
77	SUTT 150 kV Sungguminasa-Tallasa	114	-5.44951	119.47961						-	4	4	0	-44.75	0	1.2790
78	SUTT 150 kV Sungguminasa-Tallasa	115	-5.45249	119.47854						-	4	4	0	-44.75	0	1.2790
79	SUTT 150 kV Sungguminasa-Tallasa	116	-5.45579	119.47789						-	2	2	0	-32.50	0	0.6400
80	SUTT 150 kV Sungguminasa-Tallasa	117	-5.45856	119.47579						-	1	1	0	-27.00	0	0.3200
81	SUTT 150 kV Sungguminasa-Tallasa	118	-5.46132	119.47373						-	1	1	0	-27.00	0	0.3200

Lampiran 28 Data Eksisting Transmisi Sungguminasa – Tanjung Bunga

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Sungguminasa-Tanjung Bunga	1	-5.23013	119.46162						0.176	5	4	1	-56.75	21.00	1.599
2	SUTT 150 kV Sungguminasa-Tanjung Bunga	2	-5.23013	119.45875						0.271	4	3	1	-40.3333	21.00	1.279
3	SUTT 150 kV Sungguminasa-Tanjung Bunga	3	-5.23211	119.45635						0.277	3	2	1	-38.5	21.00	0.959
4	SUTT 150 kV Sungguminasa-Tanjung Bunga	4	-5.23372	119.45395						0.4	6	5	1	-62.6	21.00	1.919
5	SUTT 150 kV Sungguminasa-Tanjung Bunga	5	-5.23537	119.45135						0.197	8	8	0	-70	0.00	2.558
6	SUTT 150 kV Sungguminasa-Tanjung Bunga	6	-5.23699	119.44895						0.252	7	7	0	-77	0.00	2.238
7	SUTT 150 kV Sungguminasa-Tanjung Bunga	7	-5.23855	119.44650						0.237	5	5	0	-84.8	0.00	1.599
8	SUTT 150 kV Sungguminasa-Tanjung Bunga	8	-5.24021	119.44387						0.231	4	4	0	-89.5	0.00	1.279
9	SUTT 150 kV Sungguminasa-Tanjung Bunga	9	-5.24195	119.44122						0.24	3	3	0	-89.6667	0.00	0.959
10	SUTT 150 kV Sungguminasa-Tanjung Bunga	10	-5.24319	119.43933						0.188	3	3	0	-46.3333	0.00	0.959
11	SUTT 150 kV Sungguminasa-Tanjung Bunga	11	-5.24396	119.43644						0.042	4	4	0	-43.75	0.00	1.279
12	SUTT 150 kV Sungguminasa-Tanjung Bunga	12	-5.24454	119.43367						0.195	4	4	0	-43.75	0.00	1.279
13	SUTT 150 kV Sungguminasa-Tanjung Bunga	13	-5.24514	119.43119						0.046	6	6	0	-48.6667	0.00	1.919
14	SUTT 150 kV Sungguminasa-Tanjung Bunga	14	-5.24469	119.42906						0.164	3	3	0	-51	0.00	0.959
15	SUTT 150 kV Sungguminasa-Tanjung Bunga	15	-5.24377	119.42607						0	6	6	0	-58	0.00	1.919
16	SUTT 150 kV Sungguminasa-Tanjung Bunga	16	-5.24287	119.42305						0.056	6	6	0	-57.3333	0.00	1.919
17	SUTT 150 kV Sungguminasa-Tanjung Bunga	17	-5.24147	119.42069						0.10	4	4	0	-64.5	0.00	1.279
18	SUTT 150 kV Sungguminasa-Tanjung Bunga	18	-5.23978	119.41795						0.16	3	3	0	-59.3333	0.00	0.959
19	SUTT 150 kV Sungguminasa-Tanjung Bunga	19	-5.23825	119.41540						0.15	2	2	0	-53	0.00	0.64
20	SUTT 150 kV Sungguminasa-Tanjung Bunga	20	-5.23658	119.41260						0.22	2	2	0	-53	0.00	0.64
21	SUTT 150 kV Sungguminasa-Tanjung Bunga	21	-5.23445	119.41024						0.04	2	2	0	-30	0.00	0.64
22	SUTT 150 kV Sungguminasa-Tanjung Bunga	22	-5.23237	119.40791						0.05	1	1	0	-28	0.00	0.32
23	SUTT 150 kV Sungguminasa-Tanjung Bunga	23	-5.22983	119.40603						0.09	3	3	0	-30.3333	0.00	0.959
24	SUTT 150 kV Sungguminasa-Tanjung Bunga	24	-5.22728	119.40420						0.15	2	2	0	-28.5	0.00	0.64
25	SUTT 150 kV Sungguminasa-Tanjung Bunga	25	-5.22467	119.40237						0.14	3	3	0	-34.6667	0.00	0.959
26	SUTT 150 kV Sungguminasa-Tanjung Bunga	26	-5.22204	119.40037						0.11	2	2	0	-38	0.00	0.64
27	SUTT 150 kV Sungguminasa-Tanjung Bunga	27	-5.21910	119.39936						0.13	0	0	0	0	0.00	0
28	SUTT 150 kV Sungguminasa-Tanjung Bunga	28	-5.21607	119.39831						0.20	0	0	0	0	0.00	0
29	SUTT 150 kV Sungguminasa-Tanjung Bunga	29	-5.21319	119.39731						0.07	0	0	0	0	0.00	0
30	SUTT 150 kV Sungguminasa-Tanjung Bunga	30	-5.21007	119.39616						0.06	0	0	0	0	0.00	0
31	SUTT 150 kV Sungguminasa-Tanjung Bunga	31	-5.20685	119.39600						0.14	0	0	0	0	0.00	0
32	SUTT 150 kV Sungguminasa-Tanjung Bunga	32	-5.20384	119.39581						0.13	3	3	0	-107.3333	0.00	0.959

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	SUTT 150 kV Sungguminasa-Tanjung Bunga	33	-5.20068	119.39569						0.19	2	2	0	-125	0.00	0.64
34	SUTT 150 kV Sungguminasa-Tanjung Bunga	34	-5.19776	119.39546						0.16	2	2	0	-125	0.00	0.64
35	SUTT 150 kV Sungguminasa-Tanjung Bunga	35	-5.19476	119.39533						0.05	4	4	0	-75.25	0.00	1.279
36	SUTT 150 kV Sungguminasa-Tanjung Bunga	36	-5.19061	119.39517						0.13	4	4	0	-75.25	0.00	1.279

Lampiran 29 Data Eksisting Transmisi Tallasa – Jeneponto

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Tallasa-Punagaya	1	-5.46329	119.47380	-			-		0.84	0	0	0	0	0.00	0
2	SUTT 150 kV Tallasa-Punagaya	2	-5.46612	119.47450	-			-		0.64	2	2	0	-26.5	0.00	0.63955017
3	SUTT 150 kV Tallasa-Punagaya	3	-5.46920	119.47570	-			-		0.71	2	2	0	-26.5	0.00	0.63955017
4	SUTT 150 kV Tallasa-Punagaya	4	-5.47200	119.47690	-			-		0.97	2	2	0	-26.5	0.00	0.63955017
5	SUTT 150 kV Tallasa-Punagaya	5	-5.47515	119.47820	-			-		0.73	1	1	0	-28	0.00	0.31977508
6	SUTT 150 kV Tallasa-Punagaya	6	-5.47803	119.47930	-			0.96		0.58	0	0	0	0	0.00	0
7	SUTT 150 kV Tallasa-Punagaya	7	-5.48125	119.48060	-			-		0.36	0	0	0	0	0.00	0
8	SUTT 150 kV Tallasa-Punagaya	8	-5.48413	119.48180	-			-		0.53	0	0	0	0	0.00	0
9	SUTT 150 kV Tallasa-Punagaya	9	-5.48706	119.48300	-			-		0.95	2	1	1	-39	56.00	0.63955017
10	SUTT 150 kV Tallasa-Punagaya	10	-5.48999	119.48410	-			0.57		0.24	2	1	1	-39	56.00	0.63955017
11	SUTT 150 kV Tallasa-Punagaya	11	-5.49307	119.48510	-			0.84		2.44	2	1	1	-39	56.00	0.63955017
12	SUTT 150 kV Tallasa-Punagaya	12	-5.49551	119.48590	-			-		0.69	1	1	0	-39	0.00	0.31977508
13	SUTT 150 kV Tallasa-Punagaya	13	-5.49792	119.48810	-			-		2.06	1	1	0	-39	0.00	0.31977508
14	SUTT 150 kV Tallasa-Punagaya	14	-5.50055	119.49050	-			0,52		0.73	1	1	0	-39	0.00	0.31977508
15	SUTT 150 kV Tallasa-Punagaya	15	-5.50247	119.49230	-			-		1.01	0	0	0	0	0.00	0
16	SUTT 150 kV Tallasa-Punagaya	16	-5.50483	119.49450	0,95			0,44		0.92	0	0	0	0	0.00	0
17	SUTT 150 kV Tallasa-Punagaya	17	-5.50699	119.49660	-			-		1.10	1	1	0	-20	0.00	0.31977508
18	SUTT 150 kV Tallasa-Punagaya	18	-5.50937	119.49870	-			-		0.97	2	2	0	-37	0.00	0.63955017
19	SUTT 150 kV Tallasa-Punagaya	19	-5.51168	119.50090	-			-		1.06	2	2	0	-37	0.00	0.63955017
20	SUTT 150 kV Tallasa-Punagaya	20	-5.51403	119.50310	-			-		0.68	2	2	0	-37	0.00	0.63955017
21	SUTT 150 kV Tallasa-Punagaya	21	-5.51673	119.50560	-			-		2.04	2	2	0	-37	0.00	0.63955017
22	SUTT 150 kV Tallasa-Punagaya	22	-5.51883	119.50750	-			-		0.78	2	2	0	-37	0.00	0.63955017
23	SUTT 150 kV Tallasa-Punagaya	23	-5.52102	119.50960	-			-		0.98	1	1	0	-54	0.00	0.31977508
24	SUTT 150 kV Tallasa-Punagaya	24	-5.52311	119.51160	-			-		0.85	0	0	0	0	0.00	0
25	SUTT 150 kV Tallasa-Punagaya	25	-5.52530	119.51370	-			1,44		1.17	2	2	0	-34	0.00	0.63955017
26	SUTT 150 kV Tallasa-Punagaya	26	-5.52765	119.51590	-			-		0.74	3	2	1	-34	80.00	0.95932525
27	SUTT 150 kV Tallasa-Punagaya	27	-5.52999	119.51810	-			-		1.20	3	2	1	-34	80.00	0.95932525
28	SUTT 150 kV Tallasa-Punagaya	28	-5.53222	119.52020	-			-		0.74	4	3	1	-48.6667	80.00	1.27910033
29	SUTT 150 kV Tallasa-Punagaya	29	-5.53430	119.52220	-			0,73		1.34	4	3	1	-48.6667	80.00	1.27910033
30	SUTT 150 kV Tallasa-Punagaya	30	-5.53664	119.52420	-			-		1.52	1	1	0	-78	0.00	0.31977508
31	SUTT 150 kV Tallasa-Punagaya	31	-5.53827	119.52580	-			-		1.48	1	1	0	-78	0.00	0.31977508
32	SUTT 150 kV Tallasa-Punagaya	32	-5.53963	119.52710	-			-		0.41	1	1	0	-78	0.00	0.31977508

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	SUTT 150 kV Tallasa-Punagaya	33	-5.54174	119.52950	-			-		0.59	1	1	0	-78	0.00	0.31977508
34	SUTT 150 kV Tallasa-Punagaya	34	-5.54387	119.53180	-			0,82		0.74	0	0	0	0	0.00	0
35	SUTT 150 kV Tallasa-Punagaya	35	-5.54599	119.53420	-			0.65		0.48	1	1	0	-18	0.00	0.31977508
36	SUTT 150 kV Tallasa-Punagaya	36	-5.54842	119.53690	-			-		0.39	1	1	0	-18	0.00	0.31977508
37	SUTT 150 kV Tallasa-Punagaya	37	-5.55072	119.53950	-			-		0.62	0	0	0	0.00	0	0.0000
38	SUTT 150 kV Tallasa-Punagaya	38	-5.55218	119.54110	-			-		1.42	1	1	0	-27.00	0	0.3198
39	SUTT 150 kV Tallasa-Punagaya	39	-5.55443	119.54360	-			0,53		0.97	1	1	0	-27.00	0	0.3198
40	SUTT 150 kV Tallasa-Punagaya	40	-5.55626	119.54560	-			0,85		0.98	1	1	0	-27.00	0	0.3198
41	SUTT 150 kV Tallasa-Punagaya	41	-5.55845	119.54800	-			-		2.29	1	1	0	-27.00	0	0.3198
42	SUTT 150 kV Tallasa-Punagaya	42	-5.56053	119.55040	-			-		0.81	3	3	0	-44.00	0	0.9593
43	SUTT 150 kV Tallasa-Punagaya	43	-5.56290	119.55290	-			-		0.99	3	3	0	-45.67	0	0.9593
44	SUTT 150 kV Tallasa-Punagaya	44	-5.56427	119.55450	-			-		0.59	3	3	0	-45.67	0	0.9593
45	SUTT 150 kV Tallasa-Punagaya	45	-5.56605	119.55650	-			0,63		2.38	3	3	0	-45.67	0	0.9593
46	SUTT 150 kV Tallasa-Punagaya	46	-5.56825	119.55890	-			-		0.67	3	3	0	-45.67	0	0.9593
47	SUTT 150 kV Tallasa-Punagaya	47	-5.57044	119.56140	-			-		0.84	3	3	0	-45.67	0	0.9593
48	SUTT 150 kV Tallasa-Punagaya	48	-5.57255	119.56370	-			-		0.52	1	1	0	-32.00	0	0.3198
49	SUTT 150 kV Tallasa-Punagaya	49	-5.57457	119.56590	-			-		0.80	0	0	0	0.00	0	0.0000
50	SUTT 150 kV Tallasa-Punagaya	50	-5.57684	119.56840	-			-		1.01	0	0	0	0.00	0	0.0000
51	SUTT 150 kV Tallasa-Punagaya	51	-5.57886	119.57040	-			0,52		0.85	1	1	0	-35.00	0	0.3198
52	SUTT 150 kV Tallasa-Punagaya	52	-5.58065	119.57260	-			-		1.07	1	1	0	-35.00	0	0.3198
53	SUTT 150 kV Tallasa-Punagaya	53	-5.58274	119.57510	-			-		1.10	1	1	0	-35.00	0	0.3198
54	SUTT 150 kV Tallasa-Punagaya	54	-5.58460	119.57790	0,95			-		0.76	1	1	0	-35.00	0	0.3198
55	SUTT 150 kV Tallasa-Punagaya	55	-5.58628	119.58030	-			-		0.71	1	1	0	-35.00	0	0.3198
56	SUTT 150 kV Tallasa-Punagaya	56	-5.58802	119.58290	0,99			-		0.72	0	0	0	0.00	0	0.0000
57	SUTT 150 kV Tallasa-Punagaya	57	-5.58947	119.58500	-			-		0.41	0	0	0	0.00	0	0.0000
58	SUTT 150 kV Punagaya-Jeneponto	58	-5.59134	119.58790						0.11	0	0	0	0.00	0	0.0000
59	SUTT 150 kV Punagaya-Jeneponto	59	-5.59325	119.59070						1.53	1	1	0	-121.00	0	0.3198
60	SUTT 150 kV Punagaya-Jeneponto	60	-5.59504	119.59340						4.76	1	1	0	-121.00	0	0.3198
61	SUTT 150 kV Punagaya-Jeneponto	61	-5.59655	119.59570						1.23	1	1	0	-121.00	0	0.3198
62	SUTT 150 kV Punagaya-Jeneponto	62	-5.59808	119.59800						2.24	1	1	0	-121.00	0	0.3198
63	SUTT 150 kV Punagaya-Jeneponto	63	-5.60004	119.60090						0.69	1	1	0	-28.00	0	0.3198
64	SUTT 150 kV Punagaya-Jeneponto	64	-5.60190	119.60370						0.85	1	1	0	-28.00	0	0.3198
65	SUTT 150 kV Punagaya-Jeneponto	65	-5.60359	119.60620						0.52	0	0	0	0.00	0	0.0000
66	SUTT 150 kV Punagaya-Jeneponto	66	-5.60534	119.60880						1.23	0	0	0	0.00	0	0.0000
67	SUTT 150 kV Punagaya-Jeneponto	67	-5.60677	119.61100						0.70	0	0	0	0.00	0	0.0000

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
68	SUTT 150 kV Punagaya-Jeneponto	68	-5.60849	119.61350						1.30	0	0	0	0.00	0	0.0000
69	SUTT 150 kV Punagaya-Jeneponto	69	-5.61024	119.61620						1.11	0	0	0	0.00	0	0.0000
70	SUTT 150 kV Punagaya-Jeneponto	70	-5.61188	119.61860						0.57	0	0	0	0.00	0	0.0000
71	SUTT 150 kV Punagaya-Jeneponto	71	-5.61347	119.62110						0.59	0	0	0	0.00	0	0.0000
72	SUTT 150 kV Punagaya-Jeneponto	72	-5.61511	119.62360						0.22	0	0	0	0.00	0	0.0000
73	SUTT 150 kV Punagaya-Jeneponto	73	-5.61681	119.62620						0.47	0	0	0	0.00	0	0.0000
74	SUTT 150 kV Punagaya-Jeneponto	74	-5.61792	119.62790						0.56	0	0	0	0.00	0	0.0000
75	SUTT 150 kV Punagaya-Jeneponto	75	-5.61967	119.63060						0.35	0	0	0	0.00	0	0.0000
76	SUTT 150 kV Punagaya-Jeneponto	76	-5.61985	119.63310						0.41	1	1	0	-51.00	0	0.3198
77	SUTT 150 kV Punagaya-Jeneponto	77	-5.62009	119.63600						0.29	1	1	0	-51.00	0	0.3198
78	SUTT 150 kV Punagaya-Jeneponto	78	-5.62035	119.63920						0.59	1	1	0	-51.00	0	0.3198
79	SUTT 150 kV Punagaya-Jeneponto	79	-5.62064	119.64240						0.28	1	1	0	-51.00	0	0.3198
80	SUTT 150 kV Punagaya-Jeneponto	80	-5.62083	119.64550						0.32	1	1	0	-51.00	0	0.3198
81	SUTT 150 kV Punagaya-Jeneponto	81	-5.62113	119.64860						0.43	2	1	1	-51.00	60	0.6396
82	SUTT 150 kV Punagaya-Jeneponto	82	-5.62141	119.65190						0.58	1	0	1	0.00	60	0.3198
83	SUTT 150 kV Punagaya-Jeneponto	83	-5.62161	119.65460						0.34	1	0	1	0.00	60	0.3198
84	SUTT 150 kV Punagaya-Jeneponto	84	-5.62186	119.65780						0.42	1	0	1	0.00	60	0.3198
85	SUTT 150 kV Punagaya-Jeneponto	85	-5.62211	119.66140						0.12	1	0	1	0.00	60	0.3198
86	SUTT 150 kV Punagaya-Jeneponto	86	-5.62240	119.66450						0.23	0	0	0	0.00	0	0.0000
87	SUTT 150 kV Punagaya-Jeneponto	87	-5.62264	119.66820						0.30	0	0	0	0.00	0	0.0000
88	SUTT 150 kV Punagaya-Jeneponto	88	-5.62289	119.67130						0.18	0	0	0	0.00	0	0.0000
89	SUTT 150 kV Punagaya-Jeneponto	89	-5.62308	119.67450						0.28	0	0	0	0.00	0	0.0000
90	SUTT 150 kV Punagaya-Jeneponto	90	-5.62332	119.67700						0.22	0	0	0	0.00	0	0.0000
91	SUTT 150 kV Punagaya-Jeneponto	91	-5.62353	119.67970						0.25	0	0	0	0.00	0	0.0000
92	SUTT 150 kV Punagaya-Jeneponto	92	-5.62372	119.68260						0.16	0	0	0	0.00	0	0.0000
93	SUTT 150 kV Punagaya-Jeneponto	93	-5.62397	119.68540						0.20	1	1	0	-115.00	0	0.3198
94	SUTT 150 kV Punagaya-Jeneponto	94	-5.62585	119.68780						0.20	1	1	0	-115.00	0	0.3198
95	SUTT 150 kV Punagaya-Jeneponto	95	-5.62759	119.68980						0.21	1	1	0	-115.00	0	0.3198
96	SUTT 150 kV Punagaya-Jeneponto	96	-5.62963	119.69220						0.18	1	1	0	-115.00	0	0.3198
97	SUTT 150 kV Punagaya-Jeneponto	97	-5.63156	119.69460						0.15	1	1	0	-115.00	0	0.3198
98	SUTT 150 kV Punagaya-Jeneponto	98	-5.63359	119.69700						0.19	1	1	0	-115.00	0	0.3198
99	SUTT 150 kV Punagaya-Jeneponto	99	-5.63535	119.69900						0.43	1	1	0	-25.00	0	0.3198
100	SUTT 150 kV Punagaya-Jeneponto	100	-5.63703	119.70100						0.21	1	1	0	-25.00	0	0.3198
101	SUTT 150 kV Punagaya-Jeneponto	101	-5.63894	119.70330						0.28	2	2	0	-68.50	0	0.6396
102	SUTT 150 kV Punagaya-Jeneponto	102	-5.64081	119.70560						0.37	2	2	0	-68.50	0	0.6396

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
103	SUTT 150 kV Punagaya-Jeneponto	103	-5.64298	119.70810						0.42	3	3	0	-64.67	0	0.9593
104	SUTT 150 kV Punagaya-Jeneponto	104	-5.64457	119.71000						0.46	3	3	0	-39.33	0	0.9593
105	SUTT 150 kV Punagaya-Jeneponto	105	-5.64639	119.71220						0.35	3	3	0	-39.33	0	0.9593
106	SUTT 150 kV Punagaya-Jeneponto	106	-5.64849	119.71480						0.50	4	4	0	-43.50	0	1.2791
107	SUTT 150 kV Punagaya-Jeneponto	107	-5.65027	119.71690						0.23	3	3	0	-43.00	0	0.9593
108	SUTT 150 kV Punagaya-Jeneponto	108	-5.65224	119.71920						0.27	2	2	0	-56.50	0	0.6396
109	SUTT 150 kV Punagaya-Jeneponto	109	-5.65426	119.72160						0.25	1	1	0	-56.00	0	0.3198
110	SUTT 150 kV Punagaya-Jeneponto	110	-5.65504	119.72400						0.19	2	2	0	-35.00	0	0.6396
111	SUTT 150 kV Punagaya-Jeneponto	111	-5.65607	119.72700						0.25	2	2	0	-35.00	0	0.6396
112	SUTT 150 kV Punagaya-Jeneponto	112	-5.65715	119.73010						0.24	2	2	0	-21.00	0	0.6396
113	SUTT 150 kV Punagaya-Jeneponto	113	-5.65802	119.73270						0.18	6	5	1	-20.60	42	1.9187
114	SUTT 150 kV Punagaya-Jeneponto	114	-5.65941	119.73600						0.23	8	7	1	-18.71	42	2.5582
115	SUTT 150 kV Punagaya-Jeneponto	115	-5.66048	119.73920						0.45	7	6	1	-19.00	42	2.2384
116	SUTT 150 kV Punagaya-Jeneponto	116	-5.66130	119.74150						1.65	6	5	1	-20.00	42	1.9187
117	SUTT 150 kV Punagaya-Jeneponto	117	-5.66217	119.74410						0.42	7	6	1	-18.83	42	2.2384
118	SUTT 150 kV Punagaya-Jeneponto	118	-5.66286	119.74630						0.63	4	3	1	-15.33	42	1.2791
119	SUTT 150 kV Punagaya-Jeneponto	119	-5.66362	119.74840						0.28	4	2	2	-14.00	38.5	1.2791
120	SUTT 150 kV Punagaya-Jeneponto	120	-5.66445	119.75090						0.50	2	1	1	-13.00	35	0.6396
121	SUTT 150 kV Punagaya-Jeneponto	121	-5.66533	119.75350						0.29	2	1	1	-13.00	35	0.6396
122	SUTT 150 kV Punagaya-Jeneponto	122	-5.66635	119.75640						0.79	3	2	1	-18.50	35	0.9593
123	SUTT 150 kV Punagaya-Jeneponto	123	-5.66618	119.75900						0.51	3	2	1	-24.00	35	0.9593
124	SUTT 150 kV Punagaya-Jeneponto	124	-5.66606	119.76150						0.67	3	2	1	-24.00	35	0.9593
125	SUTT 150 kV Punagaya-Jeneponto	125	-5.66588	119.76470						0.56	3	3	0	-29.33	0	0.9593
126	SUTT 150 kV Punagaya-Jeneponto	126	-5.66573	119.76790						1.08	4	3	1	-29.33	43	1.2791
127	SUTT 150 kV Punagaya-Jeneponto	127	-5.66564	119.77100						0.62	4	3	1	-29.33	43	1.2791
128	SUTT 150 kV Punagaya-Jeneponto	128	-5.66556	119.77350						0.51	4	3	1	-58.67	43	1.2791
129	SUTT 150 kV Punagaya-Jeneponto	129	-5.66540	119.77690						0.35	3	2	1	-76.00	43	0.9593
130	SUTT 150 kV Punagaya-Jeneponto	130	-5.66529	119.78020						0.34	3	1	2	-40.00	45.5	0.9593
131	SUTT 150 kV Punagaya-Jeneponto	131	-5.66568	119.78337							2	0	2	0.00	45.5	0.6396

Lampiran 30 Data Eksisting Transmisi Tello – Panakukang

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Panakukang-Tello	1	-5.15036	119.47000						0.102	5	4	1	-56	68.00	1.599
2	SUTT 150 kV Panakukang-Tello	2	-5.15110	119.46775						0.082	3	2	1	-56.5	68.00	0.959
3	SUTT 150 kV Panakukang-Tello	3	-5.15220	119.46466						1.131	3	2	1	-56.5	68.00	0.959
4	SUTT 150 kV Panakukang-Tello	4	-5.15272	119.46184						0.175	5	4	1	-49.25	68.00	1.599
5	SUTT 150 kV Panakukang-Tello	5	-5.15342	119.45882						0.048	5	4	1	-49.25	85.00	1.599
6	SUTT 150 kV Panakukang-Tello	6	-5.15402	119.45590						0.158	5	4	1	-40	85.00	1.599
7	SUTT 150 kV Panakukang-Tello	7	-5.15469	119.45291						0.275	5	4	1	-53.25	85.00	1.599
8	SUTT 150 kV Panakukang-Tello	8	-5.15530	119.45009					0.98	0.203	5	4	1	-57.75	85.00	1.599
9	SUTT 150 kV Panakukang-Tello	9	-5.15823	119.44961						0.036	4	4	0	-61	0.00	1.279
10	SUTT 150 kV Panakukang-Tello	10	-5.16161	119.44928						0.053	1	1	0	-54	0.00	0.32
11	SUTT 150 kV Panakukang-Tello	11	5° 9'50.19"S	119.26595						0.045	1	1	0	-54	0.00	0.32
12	SUTT 150 kV Panakukang-Tello	12	5° 9'51.81"S	119.26476						0.03	2	2	0	-29	0.00	0.64

Lampiran 31 Data Eksisting Transmisi Tello – Sungguminasa

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	Tello-Sungguminasa	1	-5.14807	119.47450						0.05	6	5	1	-57.6	68.00	1.9187
2	Tello-Sungguminasa	2	-5.14753	119.47755						0.01	7	6	1	-55	68.00	2.2384
3	Tello-Sungguminasa	3	-5.14822	119.48033						0.63	9	8	1	-51.75	68.00	2.8780
4	Tello-Sungguminasa	4	-5.14911	119.48273						0.17	10	10	0	-49.9	0.00	3.1978
5	Tello-Sungguminasa	5	-5.15138	119.48457			R,T & R2,T2			1.56	9	9	0	-50.3333	0.00	2.8780
6	Tello-Sungguminasa	6	-5.15460	119.48534			R,T & R2,T2			0.38	7	7	0	-52.7143	0.00	2.2384
7	Tello-Sungguminasa	7	-5.15728	119.48600			R,T & R2,T2			0.15	5	5	0	-51.6	0.00	1.5989
8	Tello-Sungguminasa	8	-5.15904	119.48552						0.1	4	4	0	-48.5	0.00	1.2791
9	Tello-Sungguminasa	9	-5.16116	119.48490						0.89	1	1	0	-44	0.00	0.3198
10	Tello-Sungguminasa	10	-5.16258	119.48341						1.19	0	0	0	0	0.00	0.0000
11	Tello-Sungguminasa	11	-5.16506	119.48095						0.98	0	0	0	0	0.00	0.0000
12	Tello-Sungguminasa	12	-5.16758	119.47945						0.06	2	2	0	-81	0.00	0.6396
13	Tello-Sungguminasa	13	-5.16932	119.47838						0.83	1	1	0	-31	0.00	0.3198
14	Tello-Sungguminasa	14	-5.17158	119.47864						0.18	2	2	0	-93.5	0.00	0.6396
15	Tello-Sungguminasa	15	-5.17378	119.47862			R,T & R2, T2			0.05	3	3	0	-96.3333	0.00	0.9593
16	Tello-Sungguminasa	16	-5.17630	119.47850			R,T & R2, T2			0.24	6	5	1	-77.2	106.00	1.9187
17	Tello-Sungguminasa	17	-5.17938	119.47787			R,T & R2			0.09	7	6	1	-77.6667	106.00	2.2384
18	Tello-Sungguminasa	18	-5.18193	119.47733						0.16	7	6	1	-77.6667	106.00	2.2384
19	Tello-Sungguminasa	19	-5.18483	119.47674						0.10	8	5	3	-87	74.00	2.5582
20	Tello-Sungguminasa	20	-5.18819	119.47614						0.16	6	3	3	-59	74.00	1.9187
21	Tello-Sungguminasa	21	-5.19160	119.47538			T & R2, T2			0.18	4	2	2	-68.5	58.00	1.2791
22	Tello-Sungguminasa	22	-5.19510	119.47470			R T			0.16	3	1	2	-80	58.00	0.9593
23	Tello-Sungguminasa	23	-5.19862	119.47405			R , T & R2, T2			0.11	5	3	2	-57	58.00	1.5989
24	Tello-Sungguminasa	24	-5.20168	119.47390						0.13	3	3	0	-57	0.00	0.9593
25	Tello-Sungguminasa	25	-5.20347	119.47382						0.75	4	4	0	-67	0.00	1.2791
26	Tello-Sungguminasa	26	-5.20608	119.47253						0.89	4	4	0	-67	0.00	1.2791
27	Tello-Sungguminasa	27	-5.20851	119.47121						0.28	9	7	2	-53.7143	44.50	2.8780
28	Tello-Sungguminasa	28	-5.21023	119.47033						0.24	10	8	2	-52.25	44.50	3.1978
29	Tello-Sungguminasa	29	-5.21150	119.46966						0.22	11	9	2	-48.8889	44.50	3.5175
30	Tello-Sungguminasa	30	-5.21299	119.46734			R,T & R2, T2			0.38	10	8	2	-40.875	44.50	3.1978
31	Tello-Sungguminasa	31	-5.21471	119.46618			R,T & R2, T2			0.09	9	7	2	-42.5714	44.50	2.8780
32	Tello-Sungguminasa	32	-5.21758	119.46527			R,T & R2, T2			0.41	11	9	2	-49.7778	44.50	3.5175

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
33	Tello-Sungguminasa	33	-5.21998	119.46417						0.07	10	7	3	-44.4286	50.33	3.1978
34	Tello-Sungguminasa	34	-5.22241	119.46312			R,T & R2, T2			0.34	7	5	2	-50	53.50	2.2384
35	Tello-Sungguminasa	35	-5.22576	119.46359			R,T & R2, T2			0.06	7	5	2	-49.8	41.50	2.2384
36	Tello-Sungguminasa	36	-5.22847	119.46366			R,T & R2, T2			0.14	6	4	2	-56.75	41.50	1.9187
37	Tello-Sungguminasa	37	-5.23059	119.46304						0.22	6	4	2	-56.75	41.5	1.9187

Lampiran 32 Data Eksisting Transmisi Tello – Tello Lama

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	Tello-Tello Lama	1	-5.14725	119.47278						0.0478	5	4	1	-56.75	21.00	1.5989
2	Tello-Tello Lama	2	-5.14644	119.47215						0.0202	4	3	1	-40.3333	21.00	1.2791
3	Tello-Tello Lama	3	-5.14530	119.47114						0.1093	3	2	1	-38.5	21.00	0.9593
4	Tello-Tello Lama	4	-5.14321	119.46974						0.2598	6	5	1	-62.6	21.00	1.9187
5	Tello-Tello Lama	5	-5.14083	119.46808						0.0582	8	8	0	-70	0.00	2.5582
6	Tello-Tello Lama	6	-5.13848	119.46629						0.3536	7	7	0	-77	0.00	2.2384
7	Tello-Tello Lama	7	-5.13608	119.46452						0.0946	5	5	0	-84.8	0.00	1.5989
8	Tello-Tello Lama	8	-5.13364	119.46280						0.2902	4	4	0	-89.5	0.00	1.2791
9	Tello-Tello Lama	9	-5.13062	119.46077						0.0657	3	3	0	-89.6667	0.00	0.9593
10	Tello-Tello Lama	10	-5.12813	119.45915						0.3113	3	3	0	-46.3333	0.00	0.9593
11	Tello-Tello Lama	11	-5.12530	119.45742						0.2247	4	4	0	-43.75	0.00	1.2791
12	Tello-Tello Lama	12	-5.12229	119.45536						0.038	4	4	0	-43.75	0.00	1.2791
13	Tello-Tello Lama	13	-5.11950	119.45344						0.0421	6	6	0	-48.6667	0.00	1.9187
14	Tello-Tello Lama	14	-5.11680	119.45235						0.2109	3	3	0	-51	0.00	0.9593
15	Tello-Tello Lama	15	-5.11379	119.44991						0.1518	6	6	0	-58	0.00	1.9187
16	Tello-Tello Lama	16	-5.11192	119.44672						0.0896	6	6	0	-57.3333	0.00	1.9187
17	Tello-Tello Lama	17	-5.11021	119.44375						0.41	4	4	0	-64.5	0.00	1.2791
18	Tello-Tello Lama	18	-5.10991	119.44041						0.33	3	3	0	-59.3333	0.00	0.9593
19	Tello-Tello Lama	19	-5.11030	119.43830						0.18	2	2	0	-53	0.00	0.6396

Lampiran 33 Data Eksisting Transmisi Tuppu – Polmas

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
1	SUTT 150 kV Tuppu - Polmas	1	-3.52102	119.53357							44	38	6	-40.0263	54.67	14.0701
2	SUTT 150 kV Tuppu - Polmas	2	-3.52145	119.53107						0.78	44	38	6	-38.9474	54.67	14.0701
3	SUTT 150 kV Tuppu - Polmas	3	-3.52199	119.52788						1.19	45	39	6	-38.2051	54.67	14.3899
4	SUTT 150 kV Tuppu - Polmas	4	-3.52250	119.52477						1.18	45	39	6	-38.4872	54.67	14.3899
5	SUTT 150 kV Tuppu - Polmas	5	-3.52303	119.52162						1.13	48	41	7	-41.8293	65.43	15.3492
6	SUTT 150 kV Tuppu - Polmas	6	-3.52353	119.51858						1.17	53	45	8	-46.6889	67.25	16.9481
7	SUTT 150 kV Tuppu - Polmas	7	-3.52404	119.51547						0.93	55	46	9	-46.4783	66.56	17.5876
8	SUTT 150 kV Tuppu - Polmas	8	-3.52451	119.51270						1.32	54	44	10	-51.2273	64.60	17.2679
9	SUTT 150 kV Tuppu - Polmas	9	-3.52500	119.50937						0.47	55	45	10	-51.8444	64.60	17.5876
10	SUTT 150 kV Tuppu - Polmas	10	-3.52431	119.50661						1.32	59	50	9	-53.46	66.78	18.8667
11	SUTT 150 kV Tuppu - Polmas	11	-3.52325	119.50260						0.63	59	50	9	-54.18	54.56	18.8667
12	SUTT 150 kV Tuppu - Polmas	12	-3.52031	119.50049						1.17	57	50	7	-55.16	55.14	18.2272
13	SUTT 150 kV Tuppu - Polmas	13	-3.51773	119.49867						0.59	54	47	7	-49.8723	58.00	17.2679
14	SUTT 150 kV Tuppu - Polmas	14	-3.51523	119.49686						1.09	52	45	7	-51.5556	58.00	16.6283
15	SUTT 150 kV Tuppu - Polmas	15	-3.51266	119.49505						1.07	52	45	7	-50.8667	55.71	16.6283
16	SUTT 150 kV Tuppu - Polmas	16	-3.51003	119.49317						0.83	50	44	6	-48.7727	53.00	15.9888
17	SUTT 150 kV Tuppu - Polmas	17	-3.50746	119.49138						0.36	45	39	6	-49.4615	51.33	14.3899
18	SUTT 150 kV Tuppu - Polmas	18	-3.50508	119.48972						1.40	41	34	7	-49	51.71	13.1108
19	SUTT 150 kV Tuppu - Polmas	19	-3.50258	119.48792						1.20	43	37	6	-49.027	49.83	13.7503
20	SUTT 150 kV Tuppu - Polmas	20	-3.50016	119.48617						1.29	41	35	6	-47.2857	49.83	13.1108
21	SUTT 150 kV Tuppu - Polmas	21	-3.49756	119.48437						1.29	40	35	5	-45.0857	46.00	12.7910
22	SUTT 150 kV Tuppu - Polmas	22	-3.49494	119.48248						0.59	39	34	5	-45.0294	46.00	12.4712
23	SUTT 150 kV Tuppu - Polmas	23	-3.49277	119.48091						0.17	40	35	5	-45.2857	46.00	12.7910
24	SUTT 150 kV Tuppu - Polmas	24	-3.49067	119.47935						0.41	41	36	5	-43.25	46.00	13.1108
25	SUTT 150 kV Tuppu - Polmas	25	-3.48859	119.47781						0.71	40	37	3	-42.0811	36.67	12.7910
26	SUTT 150 kV Tuppu - Polmas	26	-3.48656	119.47638						1.12	39	37	2	-41.7838	39.50	12.4712
27	SUTT 150 kV Tuppu - Polmas	27	-3.48452	119.47485						0.68	36	34	2	-40.4412	39.50	11.5119
28	SUTT 150 kV Tuppu - Polmas	28	-3.48315	119.47254						0.43	34	32	2	-39.3125	39.50	10.8724
29	SUTT 150 kV Tuppu - Polmas	29	-3.48184	119.47045						0.23	34	31	3	-38.9677	44.00	10.8724
30	SUTT 150 kV Tuppu - Polmas	30	-3.48055	119.46822						1.13	35	31	4	-40.2258	43.00	11.1921
31	SUTT 150 kV Tuppu - Polmas	31	-3.47905	119.46578						0.51	36	30	6	-41.5667	44.00	11.5119
32	SUTT 150 kV Tuppu - Polmas	32	-3.47736	119.46288						0.91	37	32	5	-43.8125	47.80	11.8317
33	SUTT 150 kV Tuppu - Polmas	33	-3.47555	119.45987						0.11	36	31	5	-42.7097	47.80	11.5119

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
34	SUTT 150 kV Tuppu - Polmas	34	-3.47394	119.45717						0.81	37	33	4	-40.5758	46.25	11.8317
35	SUTT 150 kV Tuppu - Polmas	35	-3.47233	119.45446						1.10	39	34	5	-41.8824	52.80	12.4712
36	SUTT 150 kV Tuppu - Polmas	36	-3.47071	119.45175						0.64	39	33	6	-39.8485	51.33	12.4712
37	SUTT 150 kV Tuppu - Polmas	37	-3.46906	119.44893						0.31	42	36	6	-37.58	51.3333	13.4306
38	SUTT 150 kV Tuppu - Polmas	38	-3.46720	119.44583						0.30	41	36	5	-40.14	45.8	13.1108
39	SUTT 150 kV Tuppu - Polmas	39	-3.46508	119.44382						1.57	45	40	5	-42.78	45.8	14.3899
40	SUTT 150 kV Tuppu - Polmas	40	-3.46315	119.44190						0.78	48	43	5	-45.35	45.8	15.3492
41	SUTT 150 kV Tuppu - Polmas	41	-3.46172	119.44054						1.21	49	45	4	-45.91	47.25	15.6690
42	SUTT 150 kV Tuppu - Polmas	42	-3.45943	119.43832						0.20	50	46	4	-51.15	47.25	15.9888
43	SUTT 150 kV Tuppu - Polmas	43	-3.45735	119.43629						0.33	50	46	4	-51.70	47.25	15.9888
44	SUTT 150 kV Tuppu - Polmas	44	-3.45671	119.43395						0.76	42	39	3	-51.67	45.3333	13.4306
45	SUTT 150 kV Tuppu - Polmas	45	-3.45616	119.43188						0.69	40	39	1	-50.56	44	12.7910
46	SUTT 150 kV Tuppu - Polmas	46	-3.45530	119.42885						1.21	38	37	1	-44.54	44	12.1515
47	SUTT 150 kV Tuppu - Polmas	47	-3.45435	119.42563						0.48	33	32	1	-43.25	44	10.5526
48	SUTT 150 kV Tuppu - Polmas	48	-3.45379	119.42325						0.36	33	31	2	-42.58	66	10.5526
49	SUTT 150 kV Tuppu - Polmas	49	-3.45269	119.42094						0.75	30	28	2	-42.75	66	9.5933
50	SUTT 150 kV Tuppu - Polmas	50	-3.45197	119.41914						1.39	34	32	2	-40.50	66	10.8724
51	SUTT 150 kV Tuppu - Polmas	51	-3.45085	119.41684						1.10	37	32	5	-41.94	45	11.8317
52	SUTT 150 kV Tuppu - Polmas	52	-3.44959	119.41422						0.94	34	29	5	-42.79	44	10.8724
53	SUTT 150 kV Tuppu - Polmas	53	-3.44835	119.41152						0.14	32	27	5	-42.70	44	10.2328
54	SUTT 150 kV Tuppu - Polmas	54	-3.44711	119.40879						0.40	36	31	5	-43.10	34.8	11.5119
55	SUTT 150 kV Tuppu - Polmas	55	-3.44579	119.40599						0.93	35	30	5	-44.30	34.8	11.1921
56	SUTT 150 kV Tuppu - Polmas	56	-3.44447	119.40319						0.30	34	29	5	-44.14	34.8	10.8724
57	SUTT 150 kV Tuppu - Polmas	57	-3.44353	119.40008						0.97	33	28	5	-44.29	34.8	10.5526
58	SUTT 150 kV Tuppu - Polmas	58	-3.44253	119.39700						0.49	36	30	6	-43.63	32.5	11.5119
59	SUTT 150 kV Tuppu - Polmas	59	-3.44170	119.39433						0.44	40	33	7	-44.18	38	12.7910
60	SUTT 150 kV Tuppu - Polmas	60	-3.44107	119.39061						1.66	38	31	7	-43.10	38	12.1515
61	SUTT 150 kV Tuppu - Polmas	61	-3.44087	119.38811						0.55	38	30	8	-42.13	42	12.1515
62	SUTT 150 kV Tuppu - Polmas	62	-3.44045	119.38547						2.03	40	33	7	-42.55	42.4286	12.7910
63	SUTT 150 kV Tuppu - Polmas	63	-3.43993	119.38147						1.30	39	33	6	-40.55	40.8333	12.4712
64	SUTT 150 kV Tuppu - Polmas	64	-3.43943	119.37836						0.75	35	29	6	-35.72	40.8333	11.1921
65	SUTT 150 kV Tuppu - Polmas	65	-3.43895	119.37532						1.02	34	29	5	-37.00	34.8	10.8724
66	SUTT 150 kV Tuppu - Polmas	66	-3.43866	119.37336						0.80	32	27	5	-35.11	34.8	10.2328
67	SUTT 150 kV Tuppu - Polmas	67	-3.43819	119.37021		4.68				1.68	32	26	6	-35.65	40.1667	10.2328
68	SUTT 150 kV Tuppu - Polmas	68	-3.43772	119.36701						0.78	30	26	4	-35.42	45.25	9.5933
69	SUTT 150 kV Tuppu - Polmas	69	-3.43721	119.36391						0.94	30	26	4	-39.88	44.75	9.5933

No	Nama Transmisi	No Tower	LATITUDE	LONGITUDE	DG	I-GRASS	TLA	Counterpoise	MRG	HASIL UKUR PENTANAHAN (Ohm)	Count	Count (-)	Count (+)	Min. kA	Max. kA	Density
70	SUTT 150 kV Tuppu - Polmas	70	-3.43485	119.36153						1.25	29	25	4	-37.48	44.75	9.2735
71	SUTT 150 kV Tuppu - Polmas	71	-3.43251	119.35936						1.32	30	26	4	-38.54	44.75	9.5933
72	SUTT 150 kV Tuppu - Polmas	72	-3.43021	119.35716						0.81	31	27	4	-37.74	44.75	9.9130
73	SUTT 150 kV Tuppu - Polmas	73	-3.42822	119.35531						2.04	33	29	4	-39.31	44.75	10.5526
74	SUTT 150 kV Tuppu - Polmas	74	-3.42633	119.35345						1.10	35	31	4	-37.23	44.75	11.1921
75	SUTT 150 kV Tuppu - Polmas	75	-3.42402	119.35128						0.39	35	31	4	-36.68	44.75	11.1921
76	SUTT 150 kV Tuppu - Polmas	76	-3.42208	119.34944						0.82	35	31	4	-38.16	44.75	11.1921
77	SUTT 150 kV Tuppu - Polmas	77	-3.41971	119.34716						1.25	37	31	6	-44.55	52.3333	11.8317
78	SUTT 150 kV Tuppu - Polmas	78	-3.41739	119.34491		1.88				0.32	37	32	5	-43.19	48.2	11.8317
79	SUTT 150 kV Tuppu - Polmas	79	-3.41493	119.34261		3.93				0.24	37	33	4	-42.42	43.5	11.8317
80	SUTT 150 kV Tuppu - Polmas	80	-3.41244	119.34031						1.02	36	31	5	-42.55	44.2	11.5119
81	SUTT 150 kV Tuppu - Polmas	81	-3.40998	119.33793						0.41	36	31	5	-45.06	44.2	11.5119
82	SUTT 150 kV Tuppu - Polmas	82	-3.40773	119.33573						1.94	38	33	5	-46.36	44.2	12.1515
83	SUTT 150 kV Tuppu - Polmas	83	-3.40537	119.33348						0.66	37	32	5	-46.09	44.2	11.8317
84	SUTT 150 kV Tuppu - Polmas	84	-3.40427	119.33070						0.47	41	36	5	-43.22	44.2	13.1108
85	SUTT 150 kV Tuppu - Polmas	85	-3.40317	119.32774						0.55	47	42	5	-36.10	44.2	15.0294
86	SUTT 150 kV Tuppu - Polmas	86	-3.40204	119.32464						1.38	46	41	5	-35.02	44.2	14.7097
87	SUTT 150 kV Tuppu - Polmas	87	-3.40253	119.32280						1.38	52	48	4	-34.58	44.25	16.6283
88	SUTT 150 kV Tuppu - Polmas	88	-3.40304	119.32099						0.99						

Lampiran 34 Dokumentasi Validasi Lapangan