

Project: CENDANA
 Location: SEBERANG ULU II, PALEMBANG
 Contract:
 Engineer: QURATUL AINI H
 Filename: 100% Malam

ETAP
 12.6.0H

Study Case: LF

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 Revision: Base
 Config.: Normal

Branch Losses Summary Report

CKT / Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
Cable5	-3.935	-2.588	3.941	2.590	5.4	2.8	80.4	80.5	0.10
Cable5a	3.891	2.558	-3.886	-2.556	4.2	2.2	80.4	80.3	0.08
T U.286 / PDX066	0.044	0.029	-0.043	-0.026	1.9	2.9	80.4	75.5	4.85
Cable2	-0.231	-0.152	0.231	0.152	0.0	0.0	80.3	80.3	0.00
Cable3	0.142	0.094	-0.142	-0.094	0.0	0.0	80.3	80.3	0.00
T U.408/PD0337	0.089	0.059	-0.085	-0.053	3.9	5.8	80.3	75.4	4.85
T U.90/PD0089	0.142	0.094	-0.136	-0.084	6.2	9.4	80.3	75.4	4.85
Cable6	-3.652	-2.402	3.655	2.404	2.8	1.5	80.2	80.3	0.06
Cable7	0.280	0.184	-0.280	-0.184	0.0	0.0	80.2	80.2	0.00
Cable8	3.195	2.101	-3.192	-2.099	2.9	1.5	80.2	80.2	0.07
T U.001/PD0001	0.178	0.117	-0.170	-0.105	7.8	11.7	80.2	75.4	4.86
Cable45	2.436	1.603	-2.435	-1.602	1.7	0.9	80.5	80.4	0.05
Cable86	0.782	0.515	-0.782	-0.515	0.0	0.0	80.5	80.5	0.00
Cable87	2.873	1.891	-2.873	-1.890	0.6	0.3	80.5	80.5	0.02
SKTM1	-2.508	-1.650	2.508	1.650	0.1	0.1	80.5	80.5	0.00
SKTM3	-2.508	-1.650	2.508	1.650	0.1	0.1	80.5	80.5	0.00
SKTM4	-2.508	-1.650	2.508	1.650	0.1	0.1	80.5	80.5	0.00
SKTM6	-2.508	-1.650	2.508	1.650	0.1	0.1	80.5	80.5	0.00
T U.168/PD0163	0.280	0.184	-0.268	-0.166	12.3	18.5	80.2	75.4	4.86
Cable10	3.049	2.006	-3.047	-2.004	2.6	1.4	80.2	80.1	0.06
T U.530/PD0445	0.142	0.094	-0.136	-0.084	6.3	9.4	80.2	75.3	4.86
Cable12	2.958	1.946	-2.955	-1.945	2.5	1.3	80.1	80.0	0.06
T U.420/PD0347	0.089	0.059	-0.085	-0.053	3.9	5.9	80.1	75.2	4.87
Cable13	2.813	1.851	-2.810	-1.849	2.8	1.4	80.0	80.0	0.07
T U.136/PD0132	0.142	0.094	-0.136	-0.084	6.3	9.4	80.0	75.2	4.87
Cable14	2.632	1.732	-2.631	-1.731	2.0	1.0	80.0	79.9	0.06
T U.19/PD0019	0.178	0.117	-0.170	-0.105	7.9	11.8	80.0	75.1	4.88
Cable15	2.488	1.638	-2.488	-1.637	0.2	0.1	79.9	79.9	0.01
T U.520/PD0437	0.142	0.094	-0.136	-0.084	6.3	9.5	79.9	75.0	4.88
Cable16	0.285	0.188	-0.285	-0.187	0.0	0.0	79.9	79.9	0.00
Cable19	2.061	1.356	-2.060	-1.356	0.7	0.3	79.9	79.9	0.02
T U.132/PD0128	0.142	0.094	-0.136	-0.084	6.3	9.5	79.9	75.0	4.88
Cable18	0.142	0.094	-0.142	-0.094	0.0	0.0	79.9	79.9	0.00
T U.417/PD0345	0.142	0.094	-0.136	-0.084	6.3	9.5	79.9	75.0	4.88
T U.133/PD0129	0.142	0.094	-0.136	-0.084	6.3	9.5	79.9	75.0	4.88

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CKT / Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
Cable22	1.918	1.262	-1.917	-1.261	1.3	0.7	79.9	79.8	0.05
T U.113/PD0109	0.142	0.094	-0.136	-0.084	6.3	9.5	79.9	75.0	4.88
Cable25	1.739	1.144	-1.738	-1.144	1.1	0.6	79.8	79.8	0.05
T U.494/PD2	0.178	0.117	-0.170	-0.105	7.9	11.9	79.8	74.9	4.89
Cable26	0.222	0.147	-0.222	-0.147	0.0	0.0	79.8	79.8	0.00
Cable28	1.515	0.997	-1.515	-0.997	0.2	0.1	79.8	79.8	0.01
T U.226/PD0221	0.222	0.147	-0.213	-0.132	9.9	14.8	79.8	74.9	4.89
Cable29	1.426	0.938	-1.426	-0.938	0.4	0.2	79.8	79.8	0.02
T U.190/PD0185	0.089	0.059	-0.085	-0.053	4.0	5.9	79.8	74.9	4.89
Cable30	1.337	0.880	-1.337	-0.880	0.1	0.1	79.8	79.7	0.01
T U.494/PD0416	0.089	0.059	-0.085	-0.053	4.0	5.9	79.8	74.9	4.89
Cable31	0.044	0.028	-0.044	-0.028	0.0	0.0	79.7	79.7	0.00
Cable33	1.293	0.852	-1.293	-0.851	0.1	0.1	79.7	79.7	0.01
Cable32	0.021	0.013	-0.021	-0.013	0.0	0.0	79.7	79.7	0.00
T U.256/PDX051	0.022	0.015	-0.021	-0.013	1.0	1.5	79.7	74.9	4.89
T U.02/PD2	0.021	0.013	-0.021	-0.013	0.1	0.2	79.7	79.2	0.57
Cable34	1.115	0.734	-1.115	-0.734	0.2	0.1	79.7	79.7	0.01
T U.02/PD0002	0.178	0.117	-0.170	-0.105	7.9	11.9	79.7	74.8	4.89
Cable35	0.973	0.640	-0.973	-0.640	0.1	0.1	79.7	79.7	0.01
T U.87/PD0086	0.142	0.094	-0.136	-0.084	6.3	9.5	79.7	74.8	4.89
Cable37	0.830	0.546	-0.830	-0.546	0.1	0.1	79.7	79.7	0.01
T U.165/PD0161	0.142	0.094	-0.136	-0.084	6.3	9.5	79.7	74.8	4.89
Cable38	0.608	0.400	-0.608	-0.400	0.1	0.0	79.7	79.7	0.01
T U.34/PD0034	0.222	0.147	-0.213	-0.132	9.9	14.9	79.7	74.8	4.90
Cable40	0.385	0.253	-0.385	-0.253	0.0	0.0	79.7	79.7	0.00
T U.153/PD0149	0.222	0.147	-0.213	-0.132	9.9	14.9	79.7	74.8	4.90
Cable39	0.207	0.136	-0.207	-0.136	0.0	0.0	79.7	79.7	0.01
T U.243/PD0236	0.178	0.117	-0.170	-0.105	7.9	11.9	79.7	74.8	4.90
T U.3/PD0003	0.207	0.136	-0.199	-0.123	8.6	12.9	79.7	75.1	4.55
Cable46	0.178	0.117	-0.178	-0.117	0.0	0.0	80.4	80.4	0.00
Cable47	2.115	1.392	-2.113	-1.391	1.3	0.6	80.4	80.4	0.04
T U.409/PD0338	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.6	4.84
T U.49/PD0049	0.178	0.117	-0.170	-0.105	7.8	11.7	80.4	75.6	4.84
Cable48	0.814	0.536	-0.813	-0.535	0.1	0.1	80.4	80.4	0.01
Cable49	1.211	0.797	-1.210	-0.797	0.8	0.4	80.4	80.3	0.05
T U.410/PD0339	0.089	0.059	-0.085	-0.053	3.9	5.8	80.4	75.5	4.85
Cable50	0.351	0.231	-0.351	-0.231	0.0	0.0	80.4	80.4	0.01

Data 4.2 Hasil ETAP Beban Puncak Malam

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CKT / Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
Cable51	0.462	0.304	-0.462	-0.304	0.0	0.0	80.4	80.4	0.01
Cable52	0.178	0.117	-0.178	-0.117	0.0	0.0	80.4	80.4	0.00
Cable53	0.284	0.187	-0.284	-0.187	0.0	0.0	80.4	80.4	0.00
T U.430/PD0357	0.178	0.117	-0.170	-0.105	7.8	11.7	80.4	75.5	4.85
Cable54	-0.142	-0.094	0.142	0.094	0.0	0.0	80.4	80.4	0.00
T U.316/PD0276	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
Cable95	-0.364	-0.240	0.364	0.240	0.0	0.0	80.4	80.4	0.00
SKTM.GIANT	0.364	0.240	-0.364	-0.240	0.0	0.0	80.4	80.4	0.00
Cable56	0.209	0.138	-0.209	-0.138	0.0	0.0	80.4	80.4	0.01
T U.114/PD0110	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
Cable57	0.067	0.044	-0.067	-0.044	0.0	0.0	80.4	80.4	0.00
T U.122/PD0118	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
Cable58	0.044	0.029	-0.044	-0.029	0.0	0.0	80.4	80.4	0.00
T U.270/PDX057	0.022	0.015	-0.021	-0.013	1.0	1.5	80.4	75.5	4.85
Cable59	0.022	0.015	-0.022	-0.015	0.0	0.0	80.4	80.4	0.00
T U.320/PDX079	0.022	0.015	-0.021	-0.013	1.0	1.5	80.4	75.5	4.85
T U.378/PDX116	0.022	0.015	-0.021	-0.013	1.0	1.5	80.4	75.5	4.85
Cable60	0.178	0.117	-0.178	-0.117	0.0	0.0	80.3	80.3	0.00
Cable62	0.855	0.562	-0.854	-0.562	0.2	0.1	80.3	80.3	0.02
T U.108/PD01042	0.178	0.117	-0.170	-0.105	7.8	11.7	80.3	75.5	4.85
Cable61	0.089	0.059	-0.089	-0.059	0.0	0.0	80.3	80.3	0.00
T U.521/PD0438	0.089	0.059	-0.085	-0.053	3.9	5.8	80.3	75.5	4.85
T U.284/PD0261	0.089	0.059	-0.085	-0.053	3.9	5.8	80.3	75.5	4.85
Cable64	1.333	0.877	-1.332	-0.877	0.7	0.4	80.3	80.3	0.04
Cable65	-0.656	-0.432	0.657	0.432	0.2	0.1	80.3	80.3	0.03
T U.115/PD0111	0.178	0.117	-0.170	-0.105	7.8	11.7	80.3	75.5	4.85
Cable66	1.243	0.818	-1.243	-0.818	0.1	0.1	80.3	80.3	0.01
T U.402/PD0332	0.089	0.059	-0.085	-0.053	3.9	5.9	80.3	75.4	4.86
Cable67	1.154	0.760	-1.153	-0.759	1.0	0.5	80.3	80.2	0.07
T U.522/PD0439	0.089	0.059	-0.085	-0.053	3.9	5.9	80.3	75.4	4.86
Cable68	1.064	0.701	-1.064	-0.700	0.6	0.3	80.2	80.2	0.04
TU.394/PD0324	0.089	0.059	-0.085	-0.053	3.9	5.9	80.2	75.3	4.86
Cable69	0.975	0.642	-0.974	-0.642	0.4	0.2	80.2	80.1	0.03
T U.547/PD0596	0.089	0.059	-0.085	-0.053	3.9	5.9	80.2	75.3	4.86
Cable70	0.885	0.583	-0.885	-0.583	0.2	0.1	80.1	80.1	0.01
T U.489/PD0411	0.089	0.059	-0.085	-0.053	3.9	5.9	80.1	75.3	4.87
Cable71	0.863	0.568	-0.863	-0.568	0.2	0.1	80.1	80.1	0.01

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CKT / Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
T U.302/PDX075	0.022	0.015	-0.021	-0.013	1.0	1.5	80.1	75.2	4.87
Cable72	0.721	0.475	-0.721	-0.475	0.1	0.1	80.1	80.1	0.01
T U.221/PD0216	0.142	0.094	-0.136	-0.084	6.3	9.4	80.1	75.2	4.87
Cable73	0.578	0.381	-0.578	-0.381	0.1	0.0	80.1	80.1	0.01
T U.157/PD0153	0.142	0.094	-0.136	-0.084	6.3	9.4	80.1	75.2	4.87
Cable74	0.489	0.322	-0.489	-0.322	0.1	0.1	80.1	80.1	0.02
T U.393/PD0323	0.089	0.059	-0.085	-0.053	3.9	5.9	80.1	75.2	4.87
Cable75	0.267	0.176	-0.267	-0.176	0.0	0.0	80.1	80.0	0.00
T U.63/PD0063	0.222	0.146	-0.213	-0.132	9.8	14.7	80.1	75.2	4.87
Cable76	0.178	0.117	-0.178	-0.117	0.0	0.0	80.0	80.0	0.01
T U.484/PD0406	0.089	0.059	-0.085	-0.053	3.9	5.9	80.0	75.2	4.87
Cable77	0.000	0.000	0.000	0.000			80.0	80.0	0.00
T U.196/PD0191	0.178	0.117	-0.170	-0.105	7.9	11.8	80.0	75.2	4.87
T U.150/PD0146	0.000	0.000	0.000	0.000			80.0	80.0	0.00
Cable78	-0.746	-0.491	0.746	0.491	0.2	0.1	80.3	80.4	0.02
T U.115/PD3	0.089	0.059	-0.085	-0.053	3.9	5.8	80.3	75.5	4.85
Cable79	-0.888	-0.584	0.888	0.585	0.3	0.1	80.4	80.4	0.02
T U.54/PD0054	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
Cable43	0.560	0.369	-0.560	-0.369	0.0	0.0	80.4	80.4	0.00
Cable80	-1.813	-1.193	1.813	1.193	0.5	0.2	80.4	80.4	0.02
Cable81	-1.955	-1.287	1.956	1.287	0.7	0.4	80.4	80.4	0.03
T U.66/PD066	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.6	4.85
Cable82	-2.134	-1.404	2.134	1.404	0.2	0.1	80.4	80.4	0.01
Cable83	0.178	0.117	-0.178	-0.117	0.0	0.0	80.4	80.4	0.00
T U.233/PD0227	0.178	0.117	-0.170	-0.105	7.8	11.7	80.4	75.6	4.84
Cable84	-2.312	-1.521	2.313	1.522	0.7	0.4	80.4	80.5	0.02
T U.536/PD0585	0.178	0.117	-0.170	-0.105	7.8	11.6	80.4	75.6	4.84
Cable85	0.560	0.369	-0.560	-0.369	0.0	0.0	80.5	80.5	0.01
T U.348/PDX015	0.560	0.369	-0.535	-0.332	24.4	36.7	80.5	75.6	4.84
CableU14	0.560	0.369	-0.560	-0.369	0.0	0.0	80.5	80.5	0.00
T U.211/PD0206	0.222	0.146	-0.213	-0.132	9.7	14.5	80.5	75.6	4.84
T U.14/PD0014	0.560	0.369	-0.535	-0.332	24.4	36.7	80.5	75.6	4.84
T U.228/PDX007	0.560	0.369	-0.535	-0.332	24.5	36.7	80.4	75.5	4.85
Cable88	0.364	0.240	-0.364	-0.240	0.0	0.0	80.4	80.4	0.00
Cable89	0.222	0.146	-0.222	-0.146	0.0	0.0	80.4	80.4	0.00
T U.517/PD0434	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
T U.10/PD0010	0.222	0.146	-0.213	-0.132	9.7	14.6	80.4	75.5	4.85

Data 4.2 Hasil ETAP Beban Puncak Malam

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	MW	Mvar	MW	Mvar	kW	kvar	From	To	
T U.263/PD0249	0.142	0.094	-0.136	-0.084	6.2	9.3	80.4	75.5	4.85
SKTM DARI GI	10.194	6.771	-10.033	-6.599	161.3	171.7	82.0	80.5	1.54
					641.0	850.6			

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