

Project: SUB Sistem Cirata  
 Location:  
 Contract:  
 Engineer: Ichsan Dachy  
 Filename: tes

**ETAP**

12.6.0H

Study Case: LF

Page: 13  
 Date: 02-08-2017  
 SN:  
 Revision: Kontingensi 1  
 Config.: kontingensi

**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	
Line16	-126.139	-38.658	127.887	42.774	1748.0	4115.4	88.0	90.1	2.09
IBT - II	437.658	242.122	-436.207	-169.588	1450.7	72534.1	100.0	93.6	6.43
IBT-1	437.658	242.122	-436.207	-169.588	1450.7	72534.1	100.0	93.6	6.43
Line19	-101.589	-33.333	102.093	35.075	504.7	1741.3	89.1	90.1	1.01
Line20	8.435	3.611	-8.428	-4.134	6.6	-522.4	89.1	89.0	0.13
Line18	-43.991	-15.990	44.231	15.663	240.5	-327.1	89.0	90.1	1.14
Line10	220.606	60.083	-216.408	-42.039	4198.0	18044.6	93.6	90.1	3.46
Line7	237.045	155.713	-231.377	-130.748	5668.7	24964.7	93.6	87.5	6.06
Line11	294.142	80.475	-288.544	-55.714	5597.3	24761.6	93.6	90.1	3.46
Line6	-129.532	-47.459	130.341	50.682	808.8	3223.4	86.2	87.5	1.29
Line8	3.657	0.961	-3.657	-1.423	0.6	-461.5	86.2	86.2	0.03
Line9	3.657	0.961	-3.657	-1.423	0.6	-461.5	86.2	86.2	0.03
Line27	-42.565	-12.736	42.715	12.707	150.4	-28.8	84.7	85.2	0.50
Line28	-42.565	-12.736	42.715	12.707	150.4	-28.8	84.7	85.2	0.50
Line21	-54.143	5.071	55.075	-4.739	931.8	332.1	89.0	90.1	1.14
Line22	-54.143	5.071	55.075	-4.739	931.8	332.1	89.0	90.1	1.14
Line23	117.752	42.831	-116.240	-37.086	1511.8	5745.3	89.0	86.4	2.60
Line24	117.752	42.831	-116.240	-37.086	1511.8	5745.3	89.0	86.4	2.60
Line25	-76.804	-22.630	77.447	23.797	642.7	1167.2	85.2	86.4	1.20
Line26	-76.804	-22.630	77.447	23.797	642.7	1167.2	85.2	86.4	1.20
Line14	-18.103	-18.114	18.215	16.481	112.0	-1633.2	90.1	91.5	1.41
Line15	-18.103	-18.114	18.215	16.481	112.0	-1633.2	90.1	91.5	1.41
Line29	-16.707	5.603	16.732	-6.133	25.5	-529.6	90.1	90.1	0.00
Line30	-16.707	5.603	16.732	-6.133	25.5	-529.6	90.1	90.1	0.00
					28423.8	230252.8			

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### Alert Summary Report

#### % Alert Settings

<u>Loading</u>	<u>Critical</u>	<u>Marginal</u>
Bus	100.0	95.0
Cable	100.0	95.0
Reactor	100.0	95.0
Line	100.0	95.0
Transformer	100.0	95.0
Panel	100.0	95.0
Protective Device	100.0	95.0
Generator	100.0	95.0
Inverter/Charger	100.0	95.0
<u>Bus Voltage</u>		
OverVoltage	105.0	102.0
UnderVoltage	95.0	98.0
<u>Generator Excitation</u>		
OverExcited (Q Max.)	100.0	95.0
UnderExcited (Q Min.)	100.0	

#### Critical Report

<u>Device ID</u>	<u>Type</u>	<u>Condition</u>	<u>Rating/Limit</u>	<u>Unit</u>	<u>Operating</u>	<u>% Operating</u>	<u>Phase Type</u>
BDGUTR 1	Bus	Under Voltage	150.00	kV	132.03	88.0	3-Phase
BDGUTR 2	Bus	Under Voltage	150.00	kV	132.03	88.0	3-Phase
CB9	HV CB	Overload	10.00	Amp	1,166.63	11666.3	3-Phase
CBBAT 1	Bus	Under Voltage	150.00	kV	133.65	89.1	3-Phase
CBBAT 2	Bus	Under Voltage	150.00	kV	133.65	89.1	3-Phase
CBBRU 1	Bus	Under Voltage	150.00	kV	133.45	89.0	3-Phase
CBBRU 2	Bus	Under Voltage	150.00	kV	133.45	89.0	3-Phase
CIRATA 1	Bus	Under Voltage	150.00	kV	140.36	93.6	3-Phase
CIRATA 2	Bus	Under Voltage	150.00	kV	140.36	93.6	3-Phase
CKPAY 1	Bus	Under Voltage	150.00	kV	129.33	86.2	3-Phase
CKPAY 2	Bus	Under Voltage	150.00	kV	129.33	86.2	3-Phase
DWUAN 1	Bus	Under Voltage	150.00	kV	127.00	84.7	3-Phase
DWUAN 2	Bus	Under Voltage	150.00	kV	127.00	84.7	3-Phase
BBANR	Generator	OverExcited	95.81	Mvar	95.81	100.0	3-Phase
BBANR	Generator	UnderExcited	36.83	Mvar	36.83	100.0	3-Phase

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<u>Device ID</u>	<u>Type</u>	<u>Condition</u>	<u>Rating/Limit</u>	<u>Unit</u>	<u>Operating</u>	<u>% Operating</u>	<u>Phase Type</u>
JTLHR 1	Bus	Under Voltage	150.00	kV	133.45	89.0	3-Phase
JTLHR 2	Bus	Under Voltage	150.00	kV	133.45	89.0	3-Phase
KSBRU 1	Bus	Under Voltage	150.00	kV	127.75	85.2	3-Phase
KSBRU 2	Bus	Under Voltage	150.00	kV	127.75	85.2	3-Phase
LGDAR 1	Bus	Under Voltage	150.00	kV	135.16	90.1	3-Phase
LGDAR 2	Bus	Under Voltage	150.00	kV	135.16	90.1	3-Phase
PBRAN 1	Bus	Under Voltage	150.00	kV	129.28	86.2	3-Phase
PBRAN 2	Bus	Under Voltage	150.00	kV	129.28	86.2	3-Phase
PDLRG 1	Bus	Under Voltage	150.00	kV	135.17	90.1	3-Phase
PDLRG 2	Bus	Under Voltage	150.00	kV	135.17	90.1	3-Phase
PTUHA 1	Bus	Under Voltage	150.00	kV	137.28	91.5	3-Phase
PTUHA 2	Bus	Under Voltage	150.00	kV	137.28	91.5	3-Phase
PWKTA	Bus	Under Voltage	150.00	kV	131.27	87.5	3-Phase
TTJBR 1	Bus	Under Voltage	150.00	kV	129.55	86.4	3-Phase
TTJBR 2	Bus	Under Voltage	150.00	kV	129.55	86.4	3-Phase

### Marginal Report

<u>Device ID</u>	<u>Type</u>	<u>Condition</u>	<u>Rating/Limit</u>	<u>Unit</u>	<u>Operating</u>	<u>% Operating</u>	<u>Phase Type</u>
GEN JILHR	Generator	Overload	150.00	MW	146.00	97.3	3-Phase