Konlis tanggal 31 Januari 2017

Periode II	KONDISI KELISTRIKAN 17.00 - 22.00 DM (KW)	BP (KW)
Total Sistem Bangka	**164,706**	**118,172**
Surplus/Defisit	**46,534**	**-**
Total Sistem Interkoneksi	**139,700**	**96,300**
Surplus/Defisit	**43,400**	**-**
PLTU Unit 1	-	**-**
PLTU Unit 2	13,000	**12,600**
MPP #1	25,000	**19,000**
MPP #2	25,000	**18,000**
PLTD Merawang	26,300	**18,900**
PLTU Listrindo	3,400	**3,400**
Sewatama	22,000	**6,700**
Kertabumi I	20,000	**13,900**
Kertabumi II	5,000	**3,800**
Sub Sistem Koba - Toboali	**16,950**	**16,600**
Surplus/Defisit	**350**	**-**
PLTD Toboali	8,900	**8,750**
PLTD Koba	8,050	**7,850**
Total Sistem Isolated	**25,006**	**21,872**
Surplus/Defisit	**3,134**	**-**
PLTD Mentok	7,800	**5,147**
PLTD Jebus	-	**-**
Pongok	128	**70**
Celagen	128	**55**

Konlis tanggal 31 Maret 2017

ARUS PER PENYULANG BEBAN PUNCAK MALAM PUKUL 19.00 WIB							
Penyulang	Pembangkit/GI	R	S	T	Arus rata-rata		Beban (kW)
Berok (KB1)	PLTD KOBA	39	37	38	38	38	1,118
Nibung(KB2)		64	65	64	64	64	1,892
Terentang (KB3)		39	39	37	38	38	1,127
Dara(KB4)		95	93	98	95	95	2,804
Beriga (KB5)		34	35	35	35	34	1,020
Kulur (KB6)	GI KOBA	43	42	42	42	42	1,245
Padang Mulia (KB7)		22	22	22	22	22	647
INC PLTD 1		55	55	55	55	55	1,618
Palas (PY 1)		54	52	53	53	53	1,559
Paku (PY 2)		84	84	88	85	85	2,510
Kota (TB1)	TOBOALI	93	96	96	95	95	2,794
Rindik (TB2)		31	33	33	32	32	951
Bikang (TB3)		14	15	14	14	14	422
Sadai (TB4)		72	70	71	71	71	2,088
Suka damai (TB5)		32	31	33	32	32	941

		DIgSILENT PowerFactory 14.1.3	Project:
			Date: 7/24/2017

Load Flow Calculation		Complete System Report: Voltage Profiles, Grid Interchange
AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for
Consider Reactive Power Limits	No	Nodes 1.00 kVA
		Model Equations 0.10 %

Grid: singlelinediagram	System Stage: singlelinediagr	Study Case: Study Case	Annex: / 1

	rtd.V [kV]	Bus - voltage [p.u.]	[kV]	[deg]	Voltage - Deviation [%] -10 -5 0 +5 +10
Terminal(1)	20.00	0.972	19.44	-1.11	
Terminal(2)	20.00	0.934	18.68	-1.89	
Terminal(3)	20.00	0.969	19.38	-1.17	
Terminal(5)	20.00	0.983	19.66	-0.90	
Terminal(7)	20.00	0.983	19.66	-0.90	
Terminal(8)	20.00	0.981	19.61	-0.94	
Terminal(9)	20.00	0.977	19.55	-1.01	
Terminal(13)	20.00	0.970	19.41	-0.63	
Terminal(14)	20.00	0.970	19.39	-0.64	
Terminal(16)	20.00	0.981	19.62	0.53	
Toboali	20.00	0.985	19.70	-0.86	
TJ Labu	20.00	0.929	18.57	-2.00	
Suka Damai	20.00	0.982	19.63	-0.92	
Tangit	20.00	0.976	19.51	-1.04	
Kepoh	20.00	0.967	19.34	-1.22	
Nangka-KP Jawa	20.00	0.968	19.36	-0.46	

Grid: singlelinediagram	System Stage: singlelinediagr	Study Case: Study Case	Annex: / 2

	rtd.V [kV]	Bus - voltage [p.u.]	[kV]	[deg]	Voltage - Deviation [%] -10 -5 0 +5 +10
Air Bara-Mangka	20.00	0.968	19.37	-0.33	
koba	20.00	0.991	19.83	0.98	
PLTD Toboali	6.30	1.000	6.30	0.00	
terminal	20.00	1.037	20.74	2.79	
PLTD Koba	6.30	1.000	6.30	1.77	
GI Koba	150.00	1.000	150.00	4.30	

Load Flow Calculation — Complete System Report: Voltage Profiles, Grid Interchange

AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence	No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for	
Consider Reactive Power Limits	No	Nodes	1.00 kVA
		Model Equations	0.10 %

Grid: singlelinediagram — System Stage: singlelinediagr — Study Case: Study Case — Annex: / 3

Volt. Level [kV]	Generation [MW] / [Mvar]	Motor Load [MW] / [Mvar]	Load [MW] / [Mvar]	Compensation [MW] / [Mvar]	External Infeed [MW] / [Mvar]	Interchange to	Power Interchange [MW] / [Mvar]	Total Losses [MW] / [Mvar]	Load Losses [MW] / [Mvar]	Noload Losses [MW] / [Mvar]
6.30	13.97	0.00	0.00	0.00	0.00			0.00	0.00	0.00
	9.81	0.00	0.00	0.00	0.00			0.00	0.00	0.00
						20.00 kV	13.97	0.03	0.03	0.00
							9.81	0.32	0.32	0.00
20.00	0.00	0.00	20.71	0.00	0.00			0.22	0.22	0.00
	0.00	0.00	12.83	0.00	0.00			0.27	0.27	0.00
						6.30 kV	-13.94	0.03	0.03	0.00
							-9.48	0.32	0.32	0.00
						150.00 kV	-6.99	0.01	0.01	0.00
							-3.63	0.24	0.24	0.00
150.00	0.00	0.00	0.00	0.00	7.00			0.00	0.00	0.00
	0.00	0.00	0.00	0.00	3.87			0.00	0.00	0.00
						20.00 kV	7.00	0.01	0.01	0.00
							3.87	0.24	0.24	0.00
Total:	13.97	0.00	20.71	0.00	7.00		0.00	0.26	0.26	0.00
	9.81	0.00	12.83	0.00	3.87		0.00	0.84	0.84	0.00

Load Flow Calculation		Complete System Report: Voltage Profiles, Grid Interchange
AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence	No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for	
Consider Reactive Power Limits	No	Nodes	1.00 kVA
		Model Equations	0.10 %

Total System Summary	Study Case: Study Case	Annex: / 4

	Generation [MW] / [Mvar]	Motor Load [MW] / [Mvar]	Load [MW] / [Mvar]	Compensation [MW] / [Mvar]	External Infeed [MW] / [Mvar]	Inter Area Flow [MW] / [Mvar]	Total Losses [MW] / [Mvar]	Load Losses [MW] / [Mvar]	Noload Losses [MW] / [Mvar]
\Andry Yuliansyah\skripsi\Network Model\Network Data\singlelinediagram									
	13.97	0.00	20.71	0.00	7.00	0.00	0.26	0.26	0.00
	9.81	0.00	12.83	0.00	3.87	0.00	0.84	0.84	0.00
Total:									
	13.97	0.00	20.71	0.00	7.00		0.26	0.26	0.00
	9.81	0.00	12.83	0.00	3.87		0.84	0.84	0.00

		DIgSILENT PowerFactory 14.1.3	Project:
			Date: 7/24/2017

Load Flow Calculation		Complete System Report: Voltage Profiles, Grid Interchange
AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for
Consider Reactive Power Limits	No	Nodes 1.00 kVA
		Model Equations 0.10 %

Grid: singlelinediagram	System Stage: singlelinediagr	Study Case: Study Case	Annex: / 1

	rtd.V [kV]	Bus - voltage [p.u.]	[kV]	[deg]	Voltage - Deviation [%] -10 -5 0 +5 +10
Terminal(1)	20.00	0.977	19.55	-1.04	
Terminal(2)	20.00	0.962	19.23	-1.48	
Terminal(3)	20.00	0.974	19.49	-1.10	
Terminal(5)	20.00	0.983	19.66	-0.90	
Terminal(7)	20.00	0.983	19.66	-0.89	
Terminal(8)	20.00	0.981	19.61	-0.94	
Terminal(9)	20.00	0.978	19.55	-1.00	
Terminal(13)	20.00	0.970	19.41	-0.62	
Terminal(14)	20.00	0.970	19.39	-0.63	
Terminal(16)	20.00	0.981	19.62	0.53	
Toboali	20.00	0.985	19.70	-0.85	
TJ Labu	20.00	0.957	19.13	-1.59	
Suka Damai	20.00	0.982	19.64	-0.92	
Tangit	20.00	0.976	19.52	-1.04	
Kepoh	20.00	0.967	19.34	-1.21	
Mangka-KP Jawa	20.00	0.968	19.36	-0.46	

Grid: singlelinediagram	System Stage: singlelinediagr	Study Case: Study Case	Annex: / 2

	rtd.V [kV]	Bus - voltage [p.u.]	[kV]	[deg]	Voltage - Deviation [%] -10	-5	0	+5	+10
Air Bara-Mangka	20.00	0.969	19.37	-0.32					
koba	20.00	0.991	19.83	0.99					
PLTD Toboali	6.30	1.000	6.30	0.00					
terminal	20.00	1.037	20.74	2.80					
PLTD Koba	6.30	1.000	6.30	1.78					
GI Koba	150.00	1.000	150.00	4.31					

Load Flow Calculation — Complete System Report: Voltage Profiles, Grid Interchange

AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence	No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for	
Consider Reactive Power Limits	No	Nodes	1.00 kVA
		Model Equations	0.10 %

Grid: singlelinediagram — System Stage: singlelinediagr — Study Case: Study Case — Annex: / 3

Volt. Level [kV]	Generation [MW] / [Mvar]	Motor Load [MW] / [Mvar]	Load [MW] / [Mvar]	Compen-sation [MW] / [Mvar]	External Infeed [MW] / [Mvar]	Interchange to	Power Interchange [MW] / [Mvar]	Total Losses [MW] / [Mvar]	Load Losses [MW] / [Mvar]	Noload Losses [MW] / [Mvar]
6.30	13.92	0.00	0.00	0.00	0.00			0.00	0.00	0.00
	9.76	0.00	0.00	0.00	0.00			0.00	0.00	0.00
						20.00 kV	13.92	0.03	0.03	0.00
							9.76	0.32	0.32	0.00
20.00	0.00	0.00	20.71	0.00	0.00			0.18	0.18	0.00
	0.00	0.00	12.83	0.00	0.00			0.23	0.23	0.00
						6.30 kV	-13.90	0.03	0.03	0.00
							-9.44	0.32	0.32	0.00
						150.00 kV	-6.99	0.01	0.01	0.00
							-3.62	0.24	0.24	0.00
150.00	0.00	0.00	0.00	0.00	7.00			0.00	0.00	0.00
	0.00	0.00	0.00	0.00	3.86			0.00	0.00	0.00
						20.00 kV	7.00	0.01	0.01	0.00
							3.86	0.24	0.24	0.00
Total:	13.92	0.00	20.71	0.00	7.00		0.00	0.21	0.21	0.00
	9.76	0.00	12.83	0.00	3.86		0.00	0.79	0.79	0.00

Load Flow Calculation — Complete System Report: Voltage Profiles, Grid Interchange

AC Load Flow, balanced, positive sequence		Automatic Model Adaptation for Convergence	No
Automatic Tap Adjust of Transformers	No	Max. Acceptable Load Flow Error for	
Consider Reactive Power Limits	No	Nodes	1.00 kVA
		Model Equations	0.10 %

Total System Summary — Study Case: Study Case — Annex: / 4

	Generation [MW] / [Mvar]	Motor Load [MW] / [Mvar]	Load [MW] / [Mvar]	Compensation [MW] / [Mvar]	External Infeed [MW] / [Mvar]	Inter Area Flow [MW] / [Mvar]	Total Losses [MW] / [Mvar]	Load Losses [MW] / [Mvar]	Noload Losses [MW] / [Mvar]
\Andry Yuliansyah\skripsi\Network Model\Network Data\singlelinediagram									
	13.92	0.00	20.71	0.00	7.00	0.00	0.21	0.21	0.00
	9.76	0.00	12.83	0.00	3.86	0.00	0.79	0.79	0.00
Total:									
	13.92	0.00	20.71	0.00	7.00		0.21	0.21	0.00
	9.76	0.00	12.83	0.00	3.86		0.79	0.79	0.00