

Daily System Generation Summary on Friday

Friday, November 15, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,367 MW
Distillate	0 MW
Total TNB	2,367 MW
Total IPP	15,739 MW
Total Co-Gen	0 MW
Total System	20,063 MW

Generation Mix

Type	MWh	Percentage
Hydro	15,505	4.37 %
Gas	22,239	6.28 %
Total TNB	37,744	10.65 %
ST-Coal	196,565	55.46 %
LSS	1,526	0.43 %
Gas	117,633	33.19 %
Total IPP	315,724	89.09 %
Co-Gen	1,105	0.31 %
Total Co-Gen	1,105	0.31 %
Total Generation	354,573	100.05 %
PLTG	-553	-0.16 %
HVDC	723	0.20 %
Interconnection	170	0.05 %
Net Energy	354,403	100.00 %

Maximum Demand Record

Date: 4/18/2019	18,566 MW
Date: 4/18/2019	391,845 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	11:30:00 Hour
Total Set On Bus	17,835 MW
TNB Generation	2,085 MW
IPP Generation	14,377 MW
Spinning Reserve	1,327 MW
Maximum Demand	16,526 MW
Net Energy	354,403 MWH
Load Factor	89.35 %

Fuel Cost

Total Cost:	65,829,791.59 RM
Cost per Unit	18.47 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	457
Hydro	564
Syncon	625
Thermal	108
Total	1,754

Time Weather Temperature

Afternoon	Rainy	32
Morning	Rainy	26

Gas Usage

Station	(mmscfd)
GLGR	50
TJGS	110
Total TNB	160
CBPS	54
KLPP	99
MPSS	3
NPRI	79
PGLA	113
PLPS	95
PTEK	6
SGB3	83
SGRI	111
SKSP	50
YPKA	75
Total IPP	769
Total Gas	929

Total Gas Required 929

Alternate Fuel Usage

Station	(mmscfd)
Total	0

Hourly System MW Generation

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
System Total	14389	13674	13271	12931	12692	12472	12791	12891	13269	14584	15737	16383	16324	15757	15874	16359	16235	15946	15285	15664	15805	15559	15225	14731

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, December 05, 2019 8:37:24 AM

(Ir. Shanmugam Thoppalan)
Pengurus Besar Kanan
Jabatan Sistem Operasi

Daily MW Generation on Friday

Station	Unit	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
JMAH	U001	696	692	689	693	692	692	691	691	690	693	692	694	692	693	693	692	691	693	693	691	691	694	693	692	693
JMHE	U001	817	780	781	784	781	784	780	779	782	779	782	843	779	781	782	785	778	983	980	981	979	980	980	981	982
JMJG	U001	546	546	551	541	497	499	496	497	500	497	491	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JMJG	U003	668	663	662	659	662	666	666	663	664	662	661	666	658	665	664	679	656	666	668	667	668	664	662	677	664
JMJG	U004	916	827	785	782	781	782	779	783	782	782	782	783	785	782	782	780	783	885	961	962	960	959	959	959	963
JMJG	U005	889	780	778	778	780	782	780	780	778	777	779	781	782	778	780	782	778	864	991	982	975	978	980	979	977
PKLG	U003	282	283	284	285	285	286	285	285	282	283	283	283	283	283	283	280	281	280	277	285	286	285	281	281	282
PKLG	U004	281	281	283	282	280	279	279	278	285	278	278	278	278	278	278	278	280	285	276	282	282	282	281	281	283
PKLG	U005	469	467	465	468	469	468	468	466	466	468	468	468	468	468	468	468	466	467	466	467	466	466	466	466	466
TBIN	U001	689	691	690	690	691	687	690	689	688	690	691	692	689	691	689	690	691	689	690	689	690	689	688	690	691
TBIN	U002	694	693	693	695	693	694	694	694	693	695	693	693	695	695	695	692	692	696	696	693	693	693	692	697	689
TBIN	U003	691	692	688	693	690	690	690	692	691	692	690	695	692	691	690	693	692	689	689	690	691	691	692	691	690
TBIN	U004	941	849	783	781	782	783	785	782	782	783	783	783	782	783	781	781	783	852	940	982	982	981	982	982	985
Total ST-Coal		8579	8244	8132	8131	8083	8092	8083	8079	8083	8079	8073	7659	7583	7589	7584	7604	7574	8045	8335	8371	8349	8364	8363	8377	8357
Total ST-Oil		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CBPS	BLK2	364	362	358	354	360	362	362	357	358	364	357	370	364	362	354	361	354	362	354	361	359	362	357	362	361
GLGR	GT01	68	67	67	66	68	67	68	67	68	69	0	0	0	0	41	91	106	107	106	106	107	102	103	103	103
GLGR	GT02	68	68	69	68	67	68	68	68	68	69	106	105	106	105	97	108	108	108	108	108	108	103	104	104	104
GLGR	ST1C	71	71	71	71	71	71	71	71	71	71	30	45	48	48	45	40	90	96	96	96	95	94	93	94	83
KLPP	GT13	113	134	135	135	134	134	134	109	73	73	77	72	134	133	124	128	125	136	133	131	131	132	133	133	124
KLPP	GT14	0	0	0	0	0	0	0	0	0	0	0	0	29	62	141	135	122	147	151	151	153	155	154	130	
KLPP	GT15	129	155	155	155	155	154	154	122	92	83	85	91	89	153	153	155	145	135	122	146	149	150	150	153	
KLPP	ST17	145	135	135	131	131	131	131	119	107	90	90	90	91	134	134	161	200	192	188	200	204	202	204	204	
MPSS	GT02	89	87	86	86	89	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MPSS	ST01	37	36	34	34	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NPRI	BLK1	518	514	507	504	514	511	514	507	515	514	514	514	514	514	514	514	515	503	515	514	515	515	515	511	515
PCGP	PGRG	607	603	588	582	603	593	452	442	455	601	602	638	604	603	590	607	582	602	578	605	603	603	602	600	598
PGLA	GT11	216	207	209	182	215	203	211	207	220	168	167	176	190	211	181	180	173	210	177	216	211	212	212	212	208
PGLA	GT12	233	225	223	196	233	219	228	223	236	184	184	190	207	229	197	195	188	227	193	231	228	228	228	227	232
PGLA	ST10	238	233	231	219	231	236	236	224	229	201	203	209	216	230	222	208	205	237	220	238	237	239	236	236	
PLPS	GT11	128	127	124	123	116	115	115	69	69	69	68	74	68	121	133	137	132	136	110	140	136	139	132	139	
PLPS	GT12	0	0	0	0	0	0	0	0	0	0	0	0	0	53	153	139	115	143	140	132	137	144	135	139	
PLPS	GT13	125	125	123	120	111	113	111	111	68	66	66	71	67	115	126	131	108	136	131	136	129	137	128	132	112
PLPS	ST18	140	140	138	138	138	133	133	127	94	92	93	92	94	131	140	142	208	210	198	212	213	211	210	209	
SGB3	GT31	112	110	109	111	114	113	114	110	114	113	114	113	113	114	108	111	108	116	140	140	140	140	137	138	
SGB3	GT32	120	117	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112	142	142	142	
SGB3	GT33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	71	143	141	142	142	141	138	141	
SGB3	ST34	148	138	106	68	64	67	67	65	65	66	68	66	66	66	65	64	72	75	151	151	177	218	220	220	
SGRI	GT11	114	110	110	110	110	110	110	110	110	109	110	109	110	109	110	106	109	109	110	109	110	109	138	136	
SGRI	GT12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	116	116	115	139	139	139	110	
SGRI	ST14	65	65	65	65	65	65	66	66	66	65	66	66	67	65	66	65	65	69	135	136	132	146	147	147	
SGRI	GT21	114	113	113	113	113	112	113	112	112	113	112	113	113	113	113	112	113	112	112	113	112	125	132	132	
SGRI	GT22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	67	111	111	111	141	141	141	
SGRI	ST24	64	61	61	61	62	63	63	63	63	63	64	63	63	63	63	63	59	68	105	132	130	134	147	141	
SKSP	BLK1	308	307	218	219	225	250	236	217	252	218	219	230	265	220	259	226	219	227	288	333	325	330	306	330	
TJGS	GT1A	223	224	225	219	226	223	224	223	227	204	193	233	229	150	200	135	186	223	221	226	222	226	223	225	

Daily MW Generation on Friday

		Unit		0000	0100		0200		0300		0400		0500		0600		0700		0800		0900		1000		1100		1200		1300		1400		1500		1600		1700		1800		1900		2000		2100		2200		2300				
TJGS	GT1B	216	218	214	214	218	217	217	218	217	194	186	216	218	146	197	125	180	220	211	215	217	215	217	217	216	217	216	214	217	214	216	217	217	217	219	211	218	218	214	216	214	220	217	217	213	218	217	217				
TJGS	ST1C	246	246	246	242	242	242	242	242	242	226	226	234	245	210	239	172	204	243	243	246	246	246	246	246	246	246	246	246	249	249	246	246	246	246	246	243	243	243	243	246	246	246	246	245	244	244	244					
TJGS	GT2B	79	174	205	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
YPKA	GT11	132	132	130	129	66	65	66	65	66	66	66	71	66	65	66	66	125	125	125	125	125	125	125	125	125	125	125	129	129	127	129	130	128	128	127	126	66	65	127	127	124	66	130	68	114	115	116	115				
YPKA	GT12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	125	125	125	125	125	125	125	125	125	125	125	125	129	130	130	130	130	131	129	127	67	64	129	128	126	67	137	67	116	76	0	0				
YPKA	ST10	54	54	53	51	33	30	31	30	30	30	30	30	30	30	30	30	125	125	125	125	125	125	125	125	125	125	125	125	123	124	125	124	125	124	123	123	80	76	118	122	121	69	124	79	112	64	49	49				
YPKA	GT21	126	125	123	122	65	65	65	65	65	65	65	69	65	65	65	65	65	125	125	125	125	125	125	125	125	125	125	123	125	123	125	125	125	124	125	122	65	65	88	128	126	65	65	97	99	131	133					
YPKA	ST20	58	58	57	56	39	37	37	37	37	36	37	37	37	37	37	37	60	60	60	60	60	60	60	60	60	60	60	59	60	59	60	60	60	60	60	58	37	38	43	60	59	38	37	38	46	46	62	63				
Total CCGT-Gas		5468	5541	5311	5059	4914	4776	4639	4446	4388	4283	4156	4394	4415	4546	4715	4665	5337	5772	5735	6464	6435	6587	6725	6782	6722	6480	6353	6304	6540	6634	6785	6798	6616	6771	6702	6594	6246	6020	6524	6628	6500	6185	6256	6335	6163	5947	5726	5422				
PTEK	GT1A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	68	71	52	0	0	0	0	0	0	0	0	0	0	0	0					
PTEK	GT1B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107	97	81	103	103	69	70	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total OCGT-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107	97	81	103	183	137	141	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
BSIA	HY02	12	12	11	11	12	12	12	11	12	11	12	12	12	11	12	11	12	11	12	12	21	21	21	21	21	21	21	21	21	21	21	21	10	12	12	11	12	12	12	12	12	12	12	12	12	12	12	12				
CEND	HY01	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
CEND	HY02	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
CEND	HY03	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
CEND	HY04	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
HTRG	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	64	64	64	64	64	63	62	-1	-1	-1	-1	64	64	64	-1	-1	-1	64	124	63	125	63	62	-1	-1	-1	-1	-1	-1	-1		
HTRG	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	63	63	63	63	64	-1	-1	-1	63	63	63	63	63	-1	-1	-1	-1	-1	64	65	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
KNRG	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35	24	24	24	0	0	0	0	23	23	23	23	23	23	23	23	23	23	35	35	34	35	35	34	34	34	34	34	34	34		
KNRG	HY02	37	37	36	37	21	21	21	20	21	21	21	22	22	21	20	21	20	21	20	23	35	23	23	23	23	24	24	24	23	23	23	23	23	23	23	23	23	23	36	35	35	35	35	35	35	35	35	35	35	35		
KNRG	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35	23	23	23	8	0	0	0	23	23	24	23	23	24	23	23	23	35	35	35	35	35	35	35	35	35	35	35	35	35		
KNYR	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	58	58	58	60	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KNYR	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	60	59	58	58	-1	-1	-1	-1	94	94	98	98	98	98	98	59	59	98	98	98	98	98	98	98	98	98	97	98	98	98	98	98	98	97	98	98	98	98	98		
KNYR	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	95	99	99	99	99	98	99	99	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
KNYR	HY04	60	61	58	57	57	58	58	59	58	57	57	70	100	99	98	98	54	60	57	59	59	100	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
LP1A	HY01	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	20	20	20	20	20	18	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19			
LP1A	HY02	20	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			
MNOR	HY01	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	7	7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
PGAU	HY01	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
PGAU	HY03	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	21	-1	-1	-1	-1	-1	-1	-1	-1	10	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
PGAU	HY04	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
SIHY	HY01	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	51	51	30	50	50	50	50	30	30	30	30	30	50	50	50	31	31	31	31	31	51	51	51	51	51	31	31	31	31	31	31	31
SIHY	HY02	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50	30	50	50	50	50	50	50	30	30	30	30	30	50	50	50	31	31	31	31	31	50	50	50	50	50	30	30	30	30	30	30	30	30
SYPS	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	17	25	25	25	25	17	17	17	17	17	17</																				

Daily MW Generation on Friday

Station	Unit	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JSLs	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PCUF	CUFG	22	22	22	22	23	23	22	22	22	22	26	22	23	22	21	22	22	20	20	22	19	20	22	19	20
PCUF	CUFK	24	23	24	25	27	24	24	25	22	26	26	23	24	24	26	27	25	24	24	25	25	26	25	24	
Total Co-Gen		46	45	46	47	49	47	47	47	44	48	48	52	45	47	46	50	50	47	46	46	46	48	47	46	44
Total Gen		14380	14058	13712	13457	13274	13144	12979	12780	12724	12618	12485	12330	12803	12910	12898	12784	13290	14321	14607	15409	15732	16184	16384	16508	16305
TIE-EGAT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TIE-HVDC		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
TIE-PLTG		-40	-12	7	9	-28	-28	18	-5	1	-30	-18	-212	-17	-24	-23	-17	-9	-20	-7	-70	-36	8	-29	-47	
Interconnection		-9	18	38	39	3	3	48	25	32	0	13	-182	12	6	7	13	21	10	23	-40	-5	38	1	-18	
System Total		14389	14040	13674	13418	13271	13141	12931	12755	12692	12618	12472	12512	12791	12904	12891	12771	13269	14311	14584	15449	15737	16146	16383	16526	16324
SRev ST-Coal		360	461	458	413	463	459	460	463	460	462	473	449	464	454	459	443	469	355	148	112	134	119	120	106	126
SRev OCGT-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev CCGT-Gas		687	600	798	791	762	825	706	899	957	1212	1234	996	975	794	828	1151	656	455	669	384	416	412	274	217	
SRev ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev Co-Gen		19	20	19	18	16	18	18	18	21	17	17	13	20	18	19	15	15	18	19	19	19	17	18	19	
Syncon		928	928	928	1115	964	964	1115	1115	1115	1115	1115	1115	388	388	762	699	1203	1052	1203	1203	1016	489	489	302	
Hydro		315	274	279	281	424	423	291	293	292	293	293	276	468	500	301	547	293	415	315	373	351	596	588	683	
S.Reserve Total		2309	2283	2482	2618	2629	2689	2590	2788	2845	3099	3132	2849	2315	2154	2369	2855	2636	2295	2354	2091	1936	1635	1488	1327	