

Daily System Generation Summary on Monday

Monday, December 24, 2018

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,441 MW
Distillate	0 MW
Total TNB	2,441 MW
Total IPP	15,904 MW
Total Co-Gen	65 MW
Total System	21,784 MW

Generation Mix

Type	MWh	Percentage
Hydro	17,223	4.96 %
Gas	39,471	11.37 %
Total TNB	56,694	16.33 %
ST-Coal	201,288	57.96 %
LSS	753	0.22 %
Gas	86,376	24.87 %
Total IPP	288,417	83.05 %
Co-Gen	1,334	0.38 %
Total Co-Gen	1,334	0.38 %
Total Generation	346,445	99.76 %
PLTG	-222	-0.06 %
HVDC	-609	-0.18 %
Interconnection	-831	-0.24 %
Net Energy	347,276	100.00 %

Maximum Demand Record

Date: 8/15/2018	18,338 MW
Date: 8/15/2018	388,524 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:30:00 Hour
Total Set On Bus	17,609 MW
TNB Generation	3,671 MW
IPP Generation	12,865 MW
Spinning Reserve	1,019 MW
Maximum Demand	16,573 MW
Net Energy	347,276 MWH
Load Factor	87.31 %

Fuel Cost

Total Cost:	63,324,547.28 RM
Cost per Unit	19.75 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	287
Hydro	582
Syncon	338
Thermal	192
Total	1,399

Time	Weather	Temperature
Afternoon	Hot	35
Morning	Sunny	25

Gas Usage

Station	(mmscfd)
GLGR	55
SRDG	17
TJGS	214
Total TNB	286
CBPS	52
KLPP	71
NPRI	148
PGLA	55
PKLG	2
PLPS	93
PTEK	30
SGRI	70
SKSP	41
Total IPP	563
Total Gas	848

Alternate Fuel Usage

Station	(mmscfd)
Total	0

Total Gas Required 848

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	13627	13087	12566	12213	11912	11815	11835	12190	12787	14464	15345	15918	15892	15701	16121	16489	16548	16360	15264	15307	16012	15648	15137	14791

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, December 27, 2018 9:50:24 AM

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

Daily MW Generation on Monday

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	690	688	694	687	695	692	693	691	692	693	694	692	693	693	693	693	693	694	692	695	693	693	692	689	694	689	692	692	694	693																			
JMAH	U002	694	694	696	693	696	693	692	692	693	697	692	694	695	691	694	693	695	692	696	687	698	693	696	695	692	694	697	695	695	693	693																		
JMHE	U001	512	515	513	515	514	513	514	513	513	512	514	513	515	511	515	660	763	762	761	760	758	763	757	759	757	0	0	0	0	0	0																		
JMJG	U001	674	673	670	671	664	670	672	672	672	672	671	672	671	671	674	672	674	672	671	669	670	678	674	671	670	612	667	675	675	669	669	671																	
JMJG	U002	672	676	672	670	673	670	672	672	671	671	671	673	672	671	678	677	676	673	672	671	669	684	671	672	673	621	675	677	679	672	672	671																	
JMJG	U004	902	816	785	785	786	785	785	785	785	785	785	786	782	785	785	786	867	953	979	983	982	977	974	977	979	978	980	981	980	981	981	976																	
JMJG	U005	901	804	780	785	777	783	782	778	779	783	777	782	781	781	779	779	778	777	890	980	979	979	980	981	980	981	980	980	979	980	979	977																	
PKLG	U003	285	284	284	283	290	285	281	279	284	282	283	283	285	282	281	282	282	282	282	282	282	285	283	278	281	280	280	283	280	282	280	277																	
PKLG	U004	284	282	282	280	281	282	281	283	279	280	279	281	281	280	279	280	279	280	281	281	281	279	281	281	281	279	273	275	278	278	280	280	281																
TBIN	U001	687	690	688	689	689	687	689	690	690	685	687	689	689	689	689	689	688	688	689	687	686	689	689	688	688	690	688	687	690	687	688	688	689																
TBIN	U002	687	691	691	689	688	692	692	690	691	690	497	631	691	696	690	690	690	690	691	689	690	687	689	689	688	687	693	686	687	690	689	689	693																
TBIN	U003	691	690	690	689	690	691	691	689	690	691	689	689	691	692	692	690	690	693	692	690	690	690	692	691	688	690	690	693	686	690	691	691	690																
TBIN	U004	902	810	801	801	804	803	802	803	803	803	804	803	802	803	802	890	951	951	952	953	951	951	953	952	952	953	953	952	953	953	952	952	953																
Total ST-Coal		8581	8313	8246	8237	8247	8246	8246	8239	8240	8242	8044	8188	8246	8245	8247	8250	8388	8491	8770	9004	9015	9053	9034	9032	9028	8897	8277	8266	8271	8265	8265	8271	8273	8264	8275	8261	8266	8275	8268	8278	8266	8268	8265	8272	8262	8257	8229	8222	
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	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	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	359	365	360	361	362	359	356	243	223	223	222	221	226	222	220	236	365	362	361	365	364	361	358	354	329	360	365	365	362	363	361	358	363	357	368	359	366	363	365	355	363	358	357	354	363	359	357		
GLGR	GT01	103	104	104	103	67	68	68	68	70	68	69	70	68	69	69	68	70	85	106	103	104	103	103	102	102	103	103	102	102	103	103	102	101	102	103	103	104	103	103	103	105	102	104	104	90				
GLGR	GT02	106	105	105	106	67	68	68	69	69	69	69	69	68	68	69	69	69	85	105	105	104	105	105	104	105	105	104	105	105	105	104	104	105	105	105	105	105	105	105	105	105	107	107	105	106	106	91		
GLGR	ST1C	92	93	92	92	75	71	70	71	70	70	70	71	70	70	69	70	76	91	92	93	92	92	92	92	93	94	93	93	93	93	93	93	93	93	93	93	93	93	93	93	91	92	92	91	92	87			
KLPP	GT13	120	149	127	121	104	69	70	70	70	68	69	69	69	69	75	75	74	92	136	129	145	144	146	121	121	148	146	146	147	147	148	147	148	147	148	147	142	148	136	141	128	146	139	134					
KLPP	GT15	126	156	141	129	82	77	78	79	79	77	80	80	80	78	84	85	85	118	141	144	150	150	154	126	126	154	152	152	153	153	153	150	150	143	153	152	152	153	151	145	147	140	154	147	145				
KLPP	ST17	121	133	122	119	107	87	84	84	86	87	85	91	87	91	89	89	91	103	132	131	135	135	136	123	122	134	136	136	135	135	132	136	136	127	132	132	140	136	136	136	131	135	131	135	135	126			
NPRI	BLK1	522	531	521	492	484	474	385	395	334	322	336	338	329	348	364	334	505	500	495	497	496	503	497	491	488	455	488	497	499	485	486	488	514	515	510	512	512	517	514	515	509	515	503	515	502	514	512	514	
NPRI	BLK2	527	535	515	500	488	476	385	398	332	322	335	338	328	350	380	336	507	506	498	500	500	506	500	494	490	457	493	501	506	493	494	497	515	517	513	515	514	521	518	516	511	517	507	518	506	517	514	514	
PCGP	PGRG	500	507	503	367	361	358	364	365	365	355	363	363	360	364	374	372	372	504	500	501	506	506	498	497	473	501	507	508	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499			
PGLA	GT12	227	233	215	164	181	172	167	179	170	165	170	207	194	187	215	217	183	213	205	220	218	219	210	180	164	195	209	213	214	207	206	198	212	213	204	226	227	226	229	229	228	230	228	232	231	232	233	231	
PGLA	ST10	112	114	100	98	103	94	94	94	91	91	94	96	95	106	106	103	101	106	106	108	111	108	97	100	102	108	108	109	105	103	106	106	97	116	116	116	115	115	116	115	116	116	115	116	115	113			
PLPS	GT11	129	69	67	66	67	67	68	66	64	67	67	67	67	71	68	69	126	131	140	140	144	145	142	135	127	132	136	137	131	135	135	133	131	135	133	136	134	133	130	134	131	134	129	134	135	133			
PLPS	GT12	139	68	65	65	64	64	65	65	63	59	64	64	63	63	68	68	68	96	139	144	143	148	151	149	140	130	137	141	141	136	139	138	138	137	134	139	137	142	137	138	138	138	133	138	134	139	138	139	
PLPS	GT13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	82	142	143	142	143	142	132	122	129	133	132	126	130	131	131	129	126	130	130	134	130	129	128	129	127	130	126	129	130	129		
PLPS	ST18	144	97	96	95	94	94	95	92	93	92	94	95	95	95	97	99	96	122	179	217	216	216	218	218	215	209	212	214	212	211	213	212	212	213	212	213	212	213	213	213	212	212	211	213	213	213			
SGRI	GT21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	133	130	130	130	131	130	129	129	131	131	131	130	131	131	116	119	129	131	127	131	128	132	131	130	113	111	111	115			
SGRI	GT22	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	0	0	0	0	0
SGRI	GT23	0	0	0	0	0	0	0	0	24	47	49	49	25	25	43	54	107	140	136	144	144	140	144	144	136	132	139	139	143	135	136	133	140	141	119	122	132	143	131	140	130	141	134	132	115	115	114	68	
SGRI	ST24	0	0	0	0	0	0	0	0	0	0	0	0	11	30	31	52	67																																

Daily MW Generation on Monday

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
PTEK	GT2B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRDG	GT04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRDG	GT05	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 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
BSIA	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
BSIA	HY02	11	11	11	11	11	11	11	11	11	11	11	11	11	10	11	11	11	11	11	12	12	12	12	12
BSIA	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CEND	HY01	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
CEND	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	7	7	7	7	7	7	7	7	7
CEND	HY03	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
CEND	HY04	7	7	7	7	7	7	7	7	7	7	7	7	6	7	6	0	0	0	0	0	0	0	0	0
HTRG	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	63	86	125	125	63	125	124	125	126
HTRG	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	64	125	125	125	64	125	125	125	125
KNRG	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
KNRG	HY02	25	26	26	26	25	25	26	26	25	26	26	26	26	25	26	25	26	25	25	23	24	25	24	25
KNRG	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNYR	HY01	58	60	59	58	57	58	58	58	57	59	58	59	62	62	61	60	60	58	61	64	61	58	57	47
KNYR	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNYR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	0	0	0	0	0	0
KNYR	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LPJA	HY01	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	21	22	22	22	16	16	25	20	21
LPJA	HY02	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	20	16	16	16	11	11	14	14	14
MNOR	HY01	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	7	7	8	8	8	8	8	8	8
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	21	80	80	79	24	20	20	80	78
PGAU	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	79	81	81	20	27	20	20	20	20
PGAU	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PGAU	HY04	21	21	21	21	21	21	22	21	22	22	22	22	21	21	21	21	21	22	21	23	111	112	112	112
SIHY	HY01	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	32	51	51	51	51	51	51	51
SIHY	HY03	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31	51	51	51	51	51	51	51
SYPS	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
SYPS	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SYPS	HY03	25	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SYPS	HY04	25	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TMGR	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	31	36	37	37	37	37	37	37	37
TMGR	HY02	38	38	38	39	38	39	39	39	38	40	40	40	40	40	39	39	38	38	38	38	38	38	38	38
TMGR	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TMGR	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	86	85	65	179	183	183	178	178	180
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	88	87	66	91	187	185	181	182	183
UPIA	HY01	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
UPIA	HY02	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Hydro		323	264	263	213	212	211	212	214	213	211	216	215	216	238	219	241	217	215	279	278	428	663	804	1037
Total Distillate		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	9	13	15	20	21	22	17	25	23
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	13	21	26	29	37	39	42	44	21
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	13	22	30	36	43	42	41	15	24
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	27	44	64	77	92	100	102	74	93

Daily MW Generation on Monday

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		
PCUF	CUFG	32	30	30	30	31	29	28	28	28	28	28	29	28	27	28	28	28	29	27	25	25	24	25	25	25	22	22	24	24	24	24	25	24	23	22	24	24	24	24	27	26	26	26	23	23	15	15	18	
PCUF	CUFK	30	31	31	29	32	31	31	29	32	30	30	31	30	31	30	31	29	30	29	31	30	29	29	29	31	29	29	30	29	30	31	30	29	31	30	30	28	30	30	30	29	29	30	31	30	32	32	30	
Total Co-Gen		62	61	61	59	63	60	59	57	60	58	58	60	58	58	59	57	59	56	56	55	53	54	54	56	51	51	54	53	54	55	55	53	54	52	54	52	54	54	57	55	55	56	54	53	47	47	48		
Total Gen		13606	13284	13041	12724	12488	12334	12109	12032	11822	11706	11725	11799	11792	12009	12203	12182	12824	13656	14422	14878	15271	15598	15882	16029	15851	15670	15660	15826	16111	16394	16459	16540	16539	16590	16412	15795	15238	14989	15245	15971	15956	15773	15547	15451	15097	14879	14735	14556	
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	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		31	31	30	-28	-29	-29	-29	-29	-28	-28	-29	-29	-28	-30	-30	-28	-28	-29	-29	-29	-31	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-30	-29	-29	-29	-30	-28	-28	-30	-28	-30	-28	-30	-30	-30			
TIE-PLTG		-36	-95	-60	-64	-32	-57	-59	-31	-46	-23	-45	-1	0	30	59	59	82	8	2	-29	-29	-71	9	-12	5	31	4	12	35	-9	15	44	36	61	97	44	19	-77	-17	-10	-13	-75	-56	-76	6	-64	-10	-10	
Interconnection		-5	-64	-30	-92	-62	-87	-88	-60	-74	-52	-74	-30	-28	2	29	30	53	-20	-27	-59	-58	-102	-20	-41	-25	2	-25	-17	6	-38	-14	14	6	32	67	14	-10	-106	-46	-39	-41	-103	-86	-104	-24	-91	-40	-40	
System Total		13627	13364	13087	12832	12566	12437	12213	12108	11912	11774	11815	11845	11835	12022	12190	12168	12787	13692	14464	14952	15345	15716	15918	16086	15892	15684	15701	15859	16121	16448	16489	16542	16548	16573	16360	15796	15264	15111	15307	16026	16012	15891	15648	15570	15137	14986	14791	14612	
SRev ST-Coal		382	378	381	397	374	382	387	386	386	385	448	443	382	384	72	69	16	220	372	200	189	151	170	172	176	298	177	188	183	189	189	183	181	190	179	193	188	179	186	176	188	186	189	183	193	198	226	173	
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	0	0	67	112	39	14	11	11	10	10	11	131	152	5	3	4	38	37	36	38	-2	0	0		
SRev CCGT-Gas		342	336	511	632	881	1030	1255	1325	1678	1792	1580	1651	1715	1945	1734	1782	1262	692	418	355	211	170	160	322	391	455	271	221	212	289	271	294	229	209	354	258	210	155	206	176	235	171	260	216	343	272	277	397	
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	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	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
SRev Co-Gen		3	4	4	6	2	5	6	8	5	7	7	5	7	7	7	6	8	6	9	9	10	12	11	11	9	14	14	11	12	11	10	10	12	11	13	11	13	11	11	8	10	10	9	11	12	18	18	17	
Syncon		1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	1114	963	1114	963	1114	1114	1114	1013	459	459	85	85	0	101	101	101	0	0	0	0	0	0	151	971	1047	860	169	84	169	457	644	644	770	770	770
Hydro		301	260	261	261	262	263	262	260	261	263	258	259	259	388	255	384	257	259	296	297	257	569	428	719	798	1374	780	629	567	619	617	621	660	600	739	813	360	345	534	619	730	860	618	493	583	557	557	510	
S.Reserve Total		2142	2092	2271	2410	2633	2794	3024	3093	3444	3561	3407	3472	3477	3687	3182	3204	2657	2291	2209	1975	1680	1361	1228	1309	1459	2141	1343	1217	1187	1147	1101	1119	1093	1020	1295	1437	1873	1889	1802	1151	1251	1434	1570	1583	1813	1813	1848	1967	