

Daily System Generation Summary on Friday

Friday, February 08, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,516 MW
Distillate	0 MW
Total TNB	2,516 MW
Total IPP	15,838 MW
Total Co-Gen	55 MW
Total System	21,488 MW

Generation Mix

Type	MWh	Percentage
Hydro	12,181	3.61 %
Gas	38,713	11.46 %
Total TNB	50,894	15.06 %
ST-Coal	177,863	52.64 %
LSS	1,366	0.40 %
Gas	105,477	31.22 %
Total IPP	284,706	84.27 %
Co-Gen	1,437	0.43 %
Total Co-Gen	1,437	0.43 %
Total Generation	337,037	99.76 %
PLTG	-123	-0.04 %
HVDC	-694	-0.21 %
Interconnection	-817	-0.24 %
Net Energy	337,854	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	17,113 MW
TNB Generation	2,667 MW
IPP Generation	12,949 MW
Spinning Reserve	1,434 MW
Maximum Demand	15,770 MW
Net Energy	337,854 MWH
Load Factor	89.27 %

Fuel Cost

Total Cost:	66,827,990.16 RM
Cost per Unit	20.57 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	282
Hydro	748
Syncon	470
Thermal	270
Total	1,770

Time	Weather	Temperature
Afternoon	Hot	35
Morning	Sunny	25

Gas Usage

Station	(mmscfd)
GLGR	54
TJGS	217
Total TNB	272
CBPS	5
KLPP	116
NPRI	154
PGLA	111
PKLG	8
PLPS	100
SGRI	79
SKSP	32
YPKA	56
Total IPP	661
Total Gas	933
Total Gas Required	933

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	13978	13403	13015	12576	12330	12085	12017	12177	12359	13669	14381	14891	15005	14668	14869	15511	15696	15600	14580	14300	15354	15289	14964	14910

Prepared By: Abu Bakar bin K.K. Ibrahim

Checked By: -Select Name-

Printed on: Saturday, February 09, 2019 1:18:51 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	693	691	695	691	693	692	692	693	693	691	692	691	692	693	693	694	662	631	635	648	647	647	649	647	647	646	647	647	672	671	672	671	672	671	673	673	665	662	658	656	655	655	659	656	658	693	693		
JMAH	U002	694	693	695	695	693	695	692	694	694	692	695	695	692	693	693	693	662	635	637	647	650	648	648	649	648	649	648	648	674	673	674	674	672	673	674	663	664	657	656	657	658	658	658	658	694	692			
JMHE	U001	511	512	511	511	511	512	511	511	511	510	512	512	765	765	933	952	1000	1001	999	1000	999	1000	999	999	998	997	998	997	997	996	999	996	999	999	997	998	998	999	999	998	998	999	998	998	760	764			
JMJG	U001	631	628	629	627	628	625	628	628	627	634	625	626	626	629	627	612	627	643	685	668	668	671	666	667	663	668	667	667	668	667	666	668	669	665	666	668	665	667	667	666	668	667	666	672	664				
JMJG	U002	671	671	667	673	670	673	673	672	674	671	672	672	677	671	669	671	674	676	672	667	672	673	671	673	672	672	672	669	671	671	676	670	684	674	667	676	668	674	679	678	672	673	669	673	677	670	671		
JMJG	U003	665	665	665	665	665	664	663	664	669	663	667	662	663	663	662	666	663	658	664	657	666	661	662	660	664	665	658	662	662	662	663	662	664	663	664	657	667	662	666	665	663	664	661	662	660	666	662		
JMJG	U004	933	933	932	932	933	876	817	790	790	791	791	791	790	789	789	789	791	839	896	953	973	968	967	970	967	968	968	968	967	969	969	967	967	967	969	967	968	968	968	967	969	968	969	969	966	969			
JMJG	U005	796	642	442	398	265	215	107	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					
TBIN	U001	690	690	689	690	690	690	692	690	689	690	691	687	690	690	692	689	688	691	690	689	691	689	690	690	690	690	689	692	691	689	690	689	688	689	691	689	687	689	690	690	692	690	693	677	690	689	690		
TBIN	U003	694	694	691	691	692	691	690	693	696	691	693	692	695	692	692	691	694	693	689	691	691	692	687	688	692	692	694	688	689	692	692	688	690	692	692	691	690	690	692	690	692	690	693	677	690	689	690		
TBIN	U004	932	931	930	933	932	935	864	804	802	800	803	804	801	803	801	803	802	802	878	952	954	953	952	952	952	952	952	952	952	951	953	952	952	953	952	952	953	951	952	954	953	952	952	953	952	952	953		
Total ST-Coal		7910	7750	7546	7506	7372	7268	7029	6839	6843	6829	6851	6832	6837	6830	6827	6835	7088	7075	7316	7413	7584	7606	7598	7593	7603	7601	7591	7594	7589	7594	7651	7644	7640	7658	7647	7639	7643	7626	7629	7625	7617	7616	7616	7617	7599	7617	7449	7448	
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		
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		
CBPS	BLK2	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	17	17	88	88	59	59	66	66	66	66	73	80	160	234	373	
GLGR	GT01	104	106	105	104	104	104	103	104	98	66	70	69	68	69	68	67	72	104	104	105	104	103	103	104	103	103	103	103	103	103	103	103	103	104	103	104	68	68	105	105	104	104	103	103	103	105	105		
GLGR	GT02	104	104	104	104	105	105	105	105	97	68	69	68	67	68	68	68	74	105	104	105	105	104	104	104	104	104	103	104	104	104	104	103	104	104	104	103	68	68	106	104	104	104	104	104	104	104	104		
GLGR	ST1C	92	92	93	92	92	92	93	92	91	70	70	70	70	70	70	70	92	92	92	93	93	93	94	94	93	93	94	93	93	94	93	94	94	93	94	76	71	89	94	93	94	93	93	93	93	93			
KLPP	GT13	148	147	149	147	147	145	148	148	148	113	112	113	70	106	138	142	147	142	140	141	144	142	141	141	142	144	142	142	144	144	144	146	145	145	147	147	132	117	130	141	141	142	141	136	140	133	137	127	
KLPP	GT14	154	155	155	154	153	153	156	155	155	156	123	124	79	83	114	148	154	144	154	157	152	157	153	152	150	151	154	154	153	152	153	154	153	153	153	141	125	143	155	155	151	154	145	150	143	150	143		
KLPP	GT15	157	157	153	153	154	154	153	154	156	154	122	122	80	80	116	145	149	153	150	151	150	152	152	148	149	148	152	148	149	150	149	150	146	150	146	150	148	139	123	135	151	150	149	145	144	148	142	144	136
KLPP	ST17	202	202	202	202	202	202	202	203	203	184	184	168	143	163	195	199	203	199	199	198	198	200	200	200	200	198	198	198	198	200	200	198	199	199	199	194	182	190	198	199	199	199	194	198	194	194	198		
NPRI	BLK1	514	520	523	518	523	517	513	482	457	469	488	499	524	524	511	491	329	512	509	511	510	515	509	508	509	509	509	508	511	509	511	508	517	501	500	503	505	509	509	509	509	509	509	509	508	509	508		
NPRI	BLK2	511	512	532	524	530	523	521	485	461	474	500	502	531	534	510	494	328	516	511	513	511	517	514	512	512	511	511	511	512	512	512	514	511	520	505	503	505	508	512	511	512	512	511	511	511	510	511		
PCGP	PGRG	591	597	605	604	605	600	590	607	604	599	602	602	603	605	602	595	602	609	604	602	600	608	604	601	604	602	602	602	605	604	603	605	601	616	593	589	594	599	602	602	606	601	600	603	606	601	601		
PGLA	GT11	189	181	217	187	202	197	202	199	207	209	204	202	218	217	211	206	202	218	212	213	206	215	211	213	207	205	191	211	208	217	206	216	215	219	196	190	188	205	208	213	213	211	204	204	211	209	210	196	
PGLA	GT12	192	185	220	191	206	201	204	202	210	211	207	206	222	221	216	209	205	222	214	216	210	218	212	215	210	211	194	214	212	220	210	217	218	222	198	193	192	208	213	215	215	214	209	207	212	212	214	201	
PGLA	ST10	222	212	238	227	225	226	233	233	231	235	235	236	239	234	227	223	237	239	235	242	241	241	238	226	239	232	238	243	243	245	245	231	215	223	233	238	242	242	238	236	236	238	234	234	231				
PLPS	GT11	133	137	138	139	138	138	134	137	137	115	115	60	62	70	115	116	136	133	133	133	133	133	134	132	133	132	134	133	135	133	133	133	137	130	131	133	134	134	133	133	133	133	133	133	133	134	133		
PLPS	GT12	138	142	73	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			
PLPS	GT13	131	133	135	134	134	135	131	135	135	112	112	61	59	71	69	113	111	132	130	128	129	129	131	130	129	129	129	131	130	131	131	129	134	128	126	132	130	132	130	129	130	129	130	129	129	130	129		
PLPS	ST18	212	211	199	140	141	140	142	140	140	131	132	89																																					

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	
PKLG	GT08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	94	94	95	95	0	0	0	0	0
PKLG	GT09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	97	97	97	99	98	0	0	0	0
Total OCGT-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	195	191	191	194	193	98	0	0	0
BSIA	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	11	11	11	12	12	0	0	0
BSIA	HY02	23	23	23	23	23	20	20	20	20	20	20	21	20	12	11	11	11	11	11	11	11	11	23	23	23
BSIA	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	12	12	0	0	0
CEND	HY01	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
CEND	HY02	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
CEND	HY03	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HTRG	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-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	-1	-1	-1	-1	-1
KNRG	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	22	23	23	23	23	33	33	34
KNRG	HY02	35	35	35	35	35	35	35	35	35	35	35	25	20	21	20	21	20	21	21	21	21	21	34	34	0
KNRG	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	22	22	21	0	0	0	
KNYR	HY02	58	56	59	58	57	57	57	58	58	59	60	64	61	59	60	61	59	60	60	66	63	99	62	61	59
KNYR	HY03	-1	-1	-1	98	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	60	60	66	99	-1	-1	-1
LPIA	HY01	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	12	11	11
LPIA	HY02	10	10	10	10	10	10	10	10	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
MNOR	HY01	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	5	7	7	7	7	7	7	3
PGAU	HY01	-1	-1	-1	-1	20	21	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
PGAU	HY02	-1	-1	-1	-1	20	21	-1	-1	-1	-1	-1	-1	-1	-1	19	21	21	21	21	21	21	21	21	21	21
PGAU	HY04	22	21	22	21	21	21	21	22	21	22	21	22	21	22	22	21	20	21	21	21	21	21	21	21	21
SIHY	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
SIHY	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	0
SIHY	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	0
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	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	0
SYPS	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	0
SYPS	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	0
TMGR	HY01	33	33	33	82	36	36	35	36	36	36	36	36	36	36	36	64	63	63	64	64	64	64	64	64	31
TMGR	HY03	0	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	63	63	63	63	63	63	63	63	63	32
TMGR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	64	64	64	64	64	64	33	33	61	-1
UJLI	HY01	87	89	92	-1	-1	-1	-1	-1	-1	-1	-1	182	141	-1	-1	-1	-1	-1	-1	-1	-1	92	93	92	92
UJLI	HY02	-1	-1	-1	91	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	94	94	94	93	95	94	-1	-1	-1	-1
UPIA	HY01	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
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	5
Total Hydro		308	307	314	498	262	264	237	240	239	239	240	242	241	430	384	223	216	197	353	467	497	499	532	562	560
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	0
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	8	12	16	20	22	24	25	27	28	28
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	9	14	19	23	28	29	31	37	15	12
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	13	20	27	32	36	39	42	45	34	33
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	18	27	35	41	47	50	50	50	36	44
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	15	21	28	33	38	41	44	46	46	47
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	10	25	63	94	125	149	171	183	192	205	159	164
PCUF	CUFG	22	23	24	23	24	23	23	25	22	23	24	25	25	22	22	23	22	23	23	21	22	21	21	22	21
PCUF	CUFK	29	41	40	40	41	41	39	41	40	41	41	39	40	41	40	41	40	39	37	37	38	34	35	35	37
Total Co-Gen		51	64	64	63	65	64	62	66	62	63	64	65	64	63	65	62	63	63	61	60	60	59	56	56	56

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																									
Total Gen		13976	13792	13366	13278	12982	12854	12567	12359	12298	12095	12049	11962	11991	12146	12148	12210	12308	13098	13600	13952	14302	14596	14825	14957	14968	14868	14646	14717	14824	15088	15474	15608	15649	15674	15569	15037	14539	14200	14251	14855	15309	15298	15255	15107	14926	14865	14860	14533	
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	0	0
TIE-HVDC		-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-30	-30	-29	-29	-28	-28	-29	-29	-29	-29	-29	-29	-28	-28	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-29	-29	-28	-28
TIE-PLTG		35	-12	0	40	4	69	28	-42	5	19	0	-8	12	6	8	11	-14	-35	-32	-16	-41	-59	-29	-21	0	13	14	6	-8	-52	-1	4	-10	-59	6	17	-4	-34	-13	-41	-9	2	2	19	-1	-8	-14	-2	
Interconnection		6	-42	-29	11	-25	40	-1	-71	-24	-11	-28	-36	-18	-23	-21	-19	-43	-63	-61	-46	-71	-88	-58	-49	-29	-17	-15	-23	-38	-81	-29	-24	-39	-88	-23	-12	-33	-63	-42	-69	-38	-27	-26	-9	-30	-36	-42	-30	
System Total		13978	13842	13403	13275	13015	12822	12576	12438	12330	12114	12085	12006	12017	12177	12177	12237	12359	13169	13669	14006	14381	14692	14891	15014	15005	14893	14668	14747	14869	15176	15511	15640	15696	15770	15600	15057	14580	14271	14300	14931	15354	15332	15289	15124	14964	14909	14910	14571	
SRev ST-Coal		331	336	340	243	252	273	387	287	284	296	278	296	289	298	298	293	75	305	372	361	246	274	282	287	277	279	289	286	291	286	189	236	240	222	233	241	237	254	251	255	263	264	264	263	281	263	181	182	
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	0	0	0	-2	-3	1	1	1	-2	-1	-1	0	0	0	0	0	0	0	0	0	0	0	
SRev CCGT-Gas		337	373	407	279	209	234	253	278	338	528	598	669	755	781	732	644	1040	309	288	319	307	262	175	267	272	287	326	264	382	287	271	212	199	146	352	489	519	632	524	276	271	302	347	374	329	460	319	404	
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	0
SRev LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	1	-1	-4	-5	-1	-2	-4	9	3	3	24	26	-7	1	-28	-23	-15	-4	-3	1	0	0	0	0	0	1	1	1	1	
SRev Co-Gen		4	-9	-9	-8	-10	-9	-7	-11	-7	-8	-9	-10	-9	-8	-10	-7	-9	-11	-7	-8	-8	-6	-5	-5	-4	-1	-1	-1	-4	-2	1	0	-1	-3	-2	-2	-2	-2	-2	-2	-1	-2	-1	-2	-4	-2	-2	-4	-5
Syncon		928	928	928	913	899	899	1050	1050	1050	1050	1050	1050	1050	863	863	1050	1050	1201	1029	691	540	540	540	540	540	727	813	813	727	727	439	252	252	252	252	540	813	1115	1201	626	252	252	252	353	504	504	353	813	
Hydro		381	382	375	105	541	539	415	412	413	413	412	410	411	409	455	429	436	304	320	544	665	663	693	727	729	635	677	676	644	645	777	867	853	852	756	811	686	368	308	616	747	725	723	746	650	618	749	598	
S.Reserve Total		1981	2010	2041	1532	1891	1936	2098	2016	2078	2279	2329	2415	2496	2343	2338	2409	2593	2213	2103	2008	1849	1829	1780	1915	1912	2023	2213	2141	2143	2065	1700	1561	1545	1442	1566	2063	2248	2364	2283	1772	1531	1542	1584	1732	1763	1844	1599	1993	