

Daily System Generation Summary on Monday

Monday, September 16, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,339 MW
Distillate	0 MW
Total TNB	2,339 MW
Total IPP	14,923 MW
Total Co-Gen	0 MW
Total System	19,904 MW

Generation Mix

Type	MWh	Percentage
Hydro	7,757	2.48 %
Gas	40,291	12.89 %
Total TNB	48,048	15.37 %
ST-Coal	169,719	54.31 %
LSS	1,516	0.49 %
Gas	91,017	29.12 %
Total IPP	262,252	83.91 %
Co-Gen	1,105	0.35 %
Total Co-Gen	1,105	0.35 %
Total Generation	311,405	99.64 %
PLTG	-437	-0.14 %
HVDC	-687	-0.22 %
Interconnection	-1,124	-0.36 %
Net Energy	312,529	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:	21:00:00 Hour
Total Set On Bus	16,724 MW
TNB Generation	2,440 MW
IPP Generation	12,439 MW
Spinning Reserve	1,807 MW
Maximum Demand	14,988 MW
Net Energy	312,529 MWH
Load Factor	86.88 %

Fuel Cost

Total Cost:	57,441,810.62 RM
Cost per Unit	18.43 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	648
Hydro	299
Syncon	1,045
Thermal	394
Total	2,386

Time	Weather	Temperature
Afternoon	Haze	33
Morning	Haze	28

Gas Usage

Station	(mmcsfd)
GLGR	49
PGPS	27
TJGS	206
Total TNB	283
CBPS	52
KLPP	72
NPRI	76
PGLA	107
PLPS	78
SGB3	46
SGRI	44
SKSP	49
YPKA	31
Total IPP	554
Total Gas	837

Total Gas Required 837

Alternate Fuel Usage

Station	(mmcsfd)
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	14053	13445	12929	12495	12174	11981	11965	11632	11157	11558	12254	12649	12818	12874	13025	13210	13290	13141	13012	13690	14927	14988	14683	14461

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, October 10, 2019 3:38:56 PM

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

		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	692	693	693	691	695	693	691	694	694	693	697	692	692	691	692	691	690	696	693	692	693	692	694	689	692	692	694	692	692	693	692	694	693	695	692	694	690	694	694	693	702	693	694	694	696					
JMAH	U002		696	697	687	695	691	694	694	694	695	694	696	694	694	695	694	694	689	697	693	695	694	696	695	695	694	694	695	692	694	693	696	694	691	695	694	693	694	690	694	694	693	702	693	694	694	696					
JMHE	U001		901	906	892	849	852	850	849	780	781	776	781	780	777	780	777	781	781	778	780	781	781	860	860	860	859	862	860	860	860	859	860	853	957	954	951	953	950	949	950	949	948	948	953	952							
JMUG	U001		670	662	658	659	662	665	668	665	666	667	666	666	657	665	666	662	662	662	662	652	666	668	632	633	632	626	633	629	634	632	628	631	629	629	634	629	634	634	630	631	633	631	632	635	629	628	685	670	676		
JMJG	U003		660	662	662	666	662	662	664	661	660	658	662	663	664	663	662	666	654	660	660	660	660	657	659	656	659	660	658	662	660	655	660	654	662	657	660	653	652	657	659	654	657	651	655	657	655						
JMUG	U004		905	906	878	857	858	857	811	791	792	791	790	791	791	791	789	787	790	791	789	790	791	791	785	785	786	785	785	862	862	865	864	865	867	864	863	864	863	958	952	956	954	954	953	954	955	952	955				
JMUG	U005		902	903	856	848	851	851	799	779	782	779	779	782	782	778	778	782	779	780	779	780	782	781	777	782	777	782	782	822	861	860	861	862	863	860	859	862	857	921	956	950	953	951	951	952	952	947	952	953			
PKLG	U003		282	284	282	280	281	282	285	281	283	283	282	280	282	280	284	279	282	281	281	284	287	285	283	282	284	282	280	281	279	281	282	282	279	282	281	284	283	281	283	282	279	282	279	283	282	284	279	285			
PKLG	U004		255	255	254	255	255	254	255	251	255	254	254	253	253	254	254	255	255	256	256	255	256	255	254	256	255	256	255	254	255	254	255	254	240	207	204	205	205	206	205	206	205	206	205	205	205	204	206				
PKLG	U005		471	470	471	470	470	471	471	468	470	469	469	387	358	358	361	441	473	471	472	470	471	472	470	470	470	471	471	470	468	469	469	468	471	470	470	473	471	470	468	471	470	470	470	471	470	468					
TBIN	U004		902	902	884	852	853	852	814	803	804	805	803	804	802	804	802	803	802	803	801	803	805	803	804	803	803	845	864	863	863	862	863	863	863	861	902	902	902	902	903	903	903	903	902	902	904	908					
Total ST-Coal			7334	7339	7217	7124	7126	7133	7003	6864	6884	6870	6875	6795	6754	6758	6758	6837	6876	6854	6857	6881	6886	6834	6834	6836	6829	6843	6827	7074	7128	7124	7127	7129	7115	7088	7065	7094	7071	7370	7370	7391	7386	7391	7396	7385	7397	7379	7438	7426	7443		
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			
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		357	370	362	362	354	353	352	361	354	363	360	362	358	359	309	223	209	210	218	357	357	357	356	362	362	357	363	349	359	361	358	351	360	360	362	361	363	362	362	361	361	365	362	365	362	359	358	357			
GLGR	GT01		100	101	96	101	86	87	88	69	69	69	71	70	68	68	68	70	70	69	71	69	70	68	86	85	86	85	87	102	72	68	68	69	69	68	69	68	67	69	70	93	103	101	100	100	100	100	101	100			
GLGR	GT02		101	101	97	101	85	88	88	69	69	69	69	70	69	69	69	69	69	69	69	69	69	68	85	85	85	85	102	71	68	68	68	68	68	68	69	68	68	68	69	95	101	101	101	100	101	101	101	101			
GLGR	ST1C		88	88	85	89	82	82	82	70	70	70	70	70	70	70	70	69	69	70	69	69	70	81	81	81	81	81	89	78	71	70	70	70	71	71	71	71	71	71	71	82	90	90	90	90	89	89					
KLPP	GT13		136	135	138	139	141	140	137	120	121	123	120	121	121	115	118	112	114	119	119	119	118	119	127	111	108	110	101	106	110	110	106	109	109	109	109	109	109	112	121	134	133	133	134	136	135	136	133	136			
KLPP	GT14		154	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	142	114	114	115	118	117	115	114	121	132	149	149	153	155	157	156	157	156	155					
KLPP	GT15		151	151	151	151	103	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	101	117	113	116	116	118	118	120	120	118	118	118	121	134	149	151	150	154	154	154	154	156	156		
KLPP	ST17		203	180	136	136	128	95	56	50	54	50	50	50	50	50	51	50	52	50	52	52	52	54	53	59	46	105	120	120	112	189	184	184	186	186	188	188	186	189	188	201	203	203	202	202	202	202	202	202			
NPRI	BLK2		507	520	505	511	501	494	494	505	504	505	505	510	502	505	495	416	404	410	420	507	506	509	509	509	511	508	506	496	505	509	507	512	509	510	507	504	508	512	511	514	512	509	512	501	508	510	505				
PCGP	PGRG		602	620	599	611	596	585	585	597	601	605	601	605	595	603	585	497	459	585	600	597	597	598	598	605	602	595	597	584	592	596	599	596	601	603	602	602	598	600	608	602	605	603	605	605	602	599	599	595			
PGLA	GT11		214	218	214	217	213	209	210	214	213	215	194	218	212	198	162	168	161	162	172	164	162	215	208	214	216	194	212	163	186	183	205	194	214	214	215	211	210	165	180	222	222	221	223	223	222	221	222	221			
PGLA	GT12		222	226	222	224	220	217	218	222	221	221	203	225	218	206	169	175	168	169	178	172	169	222	214	221	222	201	218	168	194	190	214	201	222	221	221	218	215	170	185	229	230	229	230	229	229	227	230	228			
PGLA	ST10		239	241	239	239	236	236	236	238	238	241	231	235	233	226	205	209	202	206	208	206	212	231	236	240	237	228	230	215	221	219	231	226	238	238	238	237	239	206	211	248	248	248	246	248	246	246	244				
PGPS	GT3A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	77	87	88	88	88	88	88	88							
PGPS	GT3B		95	73	94	95	94	95	95	72	71	72	71	72	71	71	71	71	71	71	71	72	71	71	71	72	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	87	88	88	88	88	88	88					
PGPS	ST3C		43	34	44	44	44	44	44	31	31	31	31	31	31	30	30	30	30	30	31	31	31	31	31	31	31	31	31	32	32	32	32	32	32	32	32	32	31	31	31	29	86	85	84	84	84	84	83	83	42		
PLPS	GT11		141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	75	141	139	143	145	142	143	140	115	131				
PLPS	GT12		144	153	153	154	150	148	150	153	121	66	63	64	63	64	60	64	56	60	63	60	63	120	1																												

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		
TJGS	ST2C	258	258	258	258	258	258	258	258	258	258	249	237	211	211	211	211	237	261	261	261	261	261	261	261	261	
YPKA	GT11	114	123	124	123	123	123	123	123	66	66	66	67	66	66	67	66	67	66	66	124	125	66	66	66	66	
YPKA	GT12	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	ST10	48	52	51	52	51	51	51	51	32	32	32	32	32	32	31	32	32	32	32	32	32	32	32	32	32	
Total CCGT-Gas		6502	6147	5905	5839	5521	5363	5253	5231	5037	4969	4815	4915	4777	4757	4439	3947	3821	3980	4079	4358	4718	5039	5148	5322	5249	
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	
BSIA	HY02	13	13	13	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	-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	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
KNYR	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	97	96	96	96	95	96	96	96	96	96	96	96	96	96	96	
KNYR	HY03	0	0	0	0	0	0	0	0	0	0	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	
KNYR	HY04	61	63	60	62	57	56	56	59	59	62	58	61	61	97	96	97	94	96	96	96	96	96	96	96	96	96
MNOR	HY01	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
PGAU	HY01	-1	-1	21	-1	-1	-1	-1	-1	18	-1	-1	-1	-1	-1	21	-1	-1	-1	-1	-1	21	-1	-1	-1	-1	
PGAU	HY02	-1	-1	-1	-1	-1	-1	-1	21	-1	-1	-1	-1	-1	7	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	
PGAU	HY04	3	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	
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	-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	
TMGR	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	
TMGR	HY04	31	31	31	31	30	28	29	31	31	31	31	31	29	31	27	28	31	31	31	31	31	31	28	29	34	
UJLI	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	
UJLI	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	
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	5	
Total Hydro		147	149	168	148	142	140	140	168	146	168	145	147	342	385	374	376	368	394	375	375	375	397	375	375	397	
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	1	1	3	8	9	9	20	15	10	20	11	15	17	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	7	10	18	25	17	21	23	22	7	20	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	25	20	20	20	30	25	25	25	20	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	6	8	20	12	11	6	10	19	34	46	50	40		
JSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	3	6	10	15	21	26	17	25	19	22	29	28		
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	2	10	13	10	27	16	31	22	26	47	34	42		
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	4	8	11	16	19	24	15	16	29	24	19	30		
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	10	15	20	19	32	33	25	32	29		
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	7	11	11	19	21	39	32	30	21	10		
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	4	29	52	94	102	169	177	196	198	236	250	218		
PCUF	CUFG	25	24	25	25	26	25	25	26	27	26	26	25	25	26	24	2	2	1	4	3	0	0	0	0	0	
PCUF	CUFK	19	19	19	19	21	39	39	39	38	40	39	39	37	38	38	39	38	38	40	39	39	40	38	39		

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	
Total Co-Gen		44	43	44	44	47	64	64	65	65	66	65	64	62	64	62	41	39	40	43	41	39	38	38	40	39	39	40	38	39	39	40	39	35	33	33	33	34	33	34	32	34	34	38	61	61	59	61	61
Total Gen		14027	13678	13334	13155	12836	12700	12460	12328	12132	12073	11900	11921	11935	11964	11633	11205	11133	11320	11448	11757	12187	12485	12591	12771	12750	12749	12792	12923	12951	13106	13147	13065	13209	13208	13107	13052	13023	12970	13685	14621	14829	14850	14917	14855	14701	14695	14436	14241
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		-29	-29	-29	-29	-29	-30	-30	-29	-29	-29	-29	-29	-29	-30	-30	-29	-29	-29	-29	-29	-29	-29	-30	-30	-29	-29	-30	-30	0	-29	-30	-30	-30	-30	-30	-30	-29	-29	-30	-30	-29	-29	-29	-29	-28	-28	-29	
TIE-PLTG		7	-62	-78	-84	-60	0	-1	12	-8	-40	-47	-36	2	30	34	-13	8	48	-77	-53	-33	-2	-25	-36	-34	-39	-49	-36	-41	-11	-30	-42	-49	-62	-2	-6	43	1	28	-10	-65	8	-39	-12	50	4	7	25
Interconnection		-22	-91	-107	-113	-89	-30	-31	-18	-38	-69	-77	-65	-27	0	4	-42	-20	19	-106	-83	-63	-31	-54	-65	-64	-68	-78	-66	-70	-11	-59	-72	-78	-91	-31	-35	14	-29	-2	-40	-95	-21	-68	-41	21	-25	-22	-4
System Total		14053	13773	13445	13272	12929	12734	12495	12350	12174	12146	11981	11989	11965	11967	11632	11251	11157	11305	11558	11844	12254	12520	12649	12840	12818	12821	12874	12993	13025	13121	13210	13140	13290	13302	13141	13090	13012	13002	13690	14664	14927	14874	14988	14899	14683	14723	14461	14248
SRev ST-Coal		343	338	383	403	400	396	427	457	442	449	447	412	451	445	443	368	446	467	475	451	449	457	448	451	452	438	452	401	390	392	389	390	406	411	429	436	449	320	299	304	299	294	305	293	311	302	314	297
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev CCGT-Gas		285	443	512	300	413	571	456	478	672	740	894	794	932	952	1270	1762	1888	1729	1630	1351	991	670	561	387	490	498	601	767	916	819	784	856	650	616	635	675	664	1372	1127	295	243	225	159	166	168	206	395	526
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	
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	
SRev Co-Gen		21	22	21	21	18	1	1	0	0	-1	0	1	3	1	3	24	26	25	22	24	-4	-3	-3	-5	-4	-4	-5	-3	-4	-4	-5	-4	0	2	2	2	1	2	1	3	1	1	27	4	4	6	4	4
Syncon		1203	1203	1052	1203	1203	1203	1052	1203	1052	1203	1203	1102	951	1102	1102	1102	951	1102	1102	1102	951	1102	1102	951	1102	1102	1102	951	1102	1102	951	1102	951	1102	1102	1102	1203	1052	1052	1102	1102	951	1016	1016	1016	951	1203	
Hydro		279	277	409	278	284	286	286	409	280	409	281	280	286	394	254	251	259	384	252	252	252	381	252	252	381	251	253	255	384	249	249	381	248	382	251	251	249	320	412	445	278	277	370	295	295	331	456	285
S.Reserve Total		2131	2283	2377	2205	2318	2457	2373	2396	2597	2649	2825	2690	2774	2743	3072	3507	3721	3556	3481	3180	2790	2456	2360	2187	2270	2285	2403	2522	2637	2558	2519	2574	2406	2362	2419	2466	2465	3217	2891	2099	1923	1899	1812	1774	1794	1861	2120	2315