

Daily System Generation Summary on Sunday

Sunday, April 21, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,499 MW
Distillate	0 MW
Total TNB	2,499 MW
Total IPP	15,979 MW
Total Co-Gen	0 MW
Total System	20,928 MW

Generation Mix

Type	MWh	Percentage
Hydro	5,607	1.63 %
Gas	36,794	10.71 %
Total TNB	42,401	12.34 %
ST-Coal	202,642	58.98 %
LSS	1,584	0.46 %
Gas	94,859	27.61 %
Total IPP	299,085	87.06 %
Co-Gen	1,792	0.52 %
Total Co-Gen	1,792	0.52 %
Total Generation	343,278	99.92 %
PLTG	423	0.12 %
HVDC	-699	-0.20 %
Interconnection	-276	-0.08 %
Net Energy	343,554	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:	21:30:00 Hour
Total Set On Bus	17,957 MW
TNB Generation	2,107 MW
IPP Generation	14,350 MW
Spinning Reserve	1,439 MW
Maximum Demand	16,552 MW
Net Energy	343,554 MWH
Load Factor	86.48 %

Fuel Cost

Total Cost:	62,943,852.43 RM
Cost per Unit	18.64 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	393
Hydro	247
Syncon	985
Thermal	184
Total	1,809

Time Weather Temperature

Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	50
PAKA	47
TJGS	172
Total TNB	270
CBPS	52
KLPP	72
NPRI	148
PGLA	82
PLPS	66
PTEK	12
SGRI	97
SKSP	16
YPKA	40
Total IPP	585
Total Gas	855

Total Gas Required 855

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	15214	14558	13973	13526	13302	13006	12842	12592	12001	12612	13484	13909	14142	14091	14609	14891	15028	14783	14375	14610	16190	16407	16356	16048

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Wednesday, April 24, 2019 10:33:36 AM

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

Daily MW Generation on Sunday

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	681	694	691	692	691	691	692	693	692	691	699	691	694	691	692	693	692	693	692	691	697	692	693	689	692
JMAH	U002	695	694	695	691	695	693	692	694	694	694	693	693	694	696	696	692	692	694	696	694	696	693	694	696	696
JMHE	U001	760	761	764	760	760	762	761	762	763	761	762	763	760	761	764	760	766	763	759	755	759	571	512	407	309
JMJG	U001	672	668	677	669	676	673	674	667	673	673	672	682	670	675	675	666	669	670	669	671	674	674	671	672	673
JMJG	U002	670	672	671	672	671	672	669	673	678	668	672	674	663	672	676	673	673	672	672	672	673	673	672	677	679
JMJG	U004	778	777	776	777	777	777	779	780	777	778	778	777	777	778	778	776	777	778	777	777	780	777	777	777	780
JMJG	U005	978	977	964	827	778	779	777	783	779	782	778	780	779	779	778	781	779	780	781	781	780	891	910	912	
PKLG	U003	283	283	282	282	281	281	280	281	279	282	280	260	208	207	207	184	156	157	153	275	283	284	283	281	283
PKLG	U004	263	264	262	262	262	262	263	262	260	262	262	238	206	206	205	180	155	153	162	239	260	262	263	262	263
PKLG	U005	470	470	470	470	469	469	470	470	468	470	447	410	406	405	376	362	359	357	428	472	470	470	470	470	468
PKLG	U006	482	472	465	453	463	463	465	472	465	465	458	470	474	474	466	462	455	462	456	452	459	467	488	461	
TBIN	U001	691	690	690	692	689	688	693	690	691	691	690	690	691	693	690	691	691	690	692	692	691	691	689	690	690
TBIN	U002	692	691	692	692	692	692	692	694	694	694	691	692	695	694	689	690	693	693	692	692	691	691	692	692	693
TBIN	U003	690	689	690	690	691	690	691	692	690	689	690	689	691	691	690	687	689	688	689	690	691	689	690	687	690
Total ST-Coal		8805	8802	8789	8629	8595	8592	8598	8613	8603	8603	8594	8545	8405	8419	8417	8330	8253	8246	8251	8517	8590	8606	8615	8619	8712
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	356	364	358	362	364	356	359	361	362	359	222	221	212	219	220	208	210	211	223	358	359	359	363	356	363
GLGR	GT01	67	67	70	69	68	67	66	68	68	68	67	68	68	68	68	68	68	67	67	67	66	102	101	100	
GLGR	GT02	68	68	69	67	67	68	68	68	68	68	68	67	68	68	68	68	67	68	67	68	68	103	102	103	
GLGR	ST1C	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	71	70	89	92	92	
KLPP	GT13	116	143	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	98	136	
KLPP	GT14	122	150	150	150	151	122	122	124	121	121	121	125	122	122	121	119	122	122	122	128	126	132	131	151	
KLPP	GT15	120	144	148	110	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	56	137		
KLPP	ST17	189	201	177	125	92	51	50	50	47	47	50	51	47	47	50	51	56	51	50	50	51	52	48	52	
NPRI	BLK1	506	509	511	511	511	509	505	521	500	422	405	408	498	482	326	305	304	331	364	415	475	512	511	509	
NPRI	BLK2	506	511	511	511	514	512	507	521	500	424	406	409	499	483	325	302	301	307	367	406	459	507	510	507	
PAKA	GT4A	85	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	85	84	85	84	84	92	84	
PAKA	GT4B	74	74	74	74	74	74	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	80	74	79	
PAKA	ST4C	77	77	77	77	77	77	77	77	77	77	77	77	77	76	77	77	77	77	78	78	78	79	85	80	
PCGP	PGRG	593	601	602	604	606	602	599	604	599	603	600	605	584	600	596	252	232	589	603	590	593	597	599	594	
PGLA	GT11	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	123	176		
PGLA	GT12	170	169	234	233	233	234	168	168	168	169	169	168	164	168	168	170	166	168	173	168	212	229	227	227	
PGLA	ST10	135	92	117	115	115	115	93	93	93	93	93	93	93	93	94	92	92	92	92	92	96	113	114	114	
PLPS	GT11	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	
PLPS	GT12	118	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	91	
PLPS	GT13	108	123	125	124	128	124	125	125	125	125	126	124	120	124	125	118	120	121	125	122	124	130	129	136	
PLPS	ST18	201	119	60	59	59	59	58	59	59	58	59	59	59	60	59	57	57	57	59	58	58	60	60	60	
SGRI	GT11	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	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	
SGRI	GT13	110	110	111	114	114	111	110	110	111	111	110	111	107	110	110	103	107	106	110	110	110	109	109	132	
SGRI	ST14	64	67	66	66	69	65	66	66	66	65	68	66	65	65	65	68	65	67	68	67	68	67	66	72	
SGRI	GT21	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	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	
SGRI	GT23	111	113	112	113	116	112	112	112	112	112	112	111	111	112	108	109	108	111	111	111	112	112	111	115	
SGRI	ST24	63	61	61	65	65	61	60	60	63	63	59	60	61	62	61	61	57	62	61	63	63	62	61	63	
SKSP	BLK1	322	323	324	320	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Daily MW Generation on Sunday

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	GT1A	201	215	158	233	201	223	193	145	142	143	142	143	140	143	143	136	135	140	151	141	166	209	209	211	231	217	210	220	217	230	202	208	206	211	193	181	141	179	151	220	226	212	217	223	221	221	226	227
TJGS	GT1B	194	209	151	216	195	215	180	137	133	133	134	136	127	135	134	128	128	134	143	134	157	202	206	199	213	210	204	214	207	211	193	198	204	205	184	173	132	174	146	211	211	204	209	212	208	212	214	212
TJGS	ST1C	232	242	204	226	202	234	231	182	178	178	178	178	178	179	173	177	180	180	180	187	236	239	228	233	224	227	254	231	232	238	234	245	248	236	221	185	186	191	242	241	244	244	247	244	243	243	243	
TJGS	GT2A	214	205	185	203	218	192	184	142	148	148	148	146	147	146	146	146	148	148	148	146	186	178	196	189	178	221	223	223	222	222	222	222	222	222	222	222	222	222	223	224	223	223	224	223	223	223	223	
TJGS	GT2B	212	206	185	201	215	189	183	140	144	145	145	145	144	144	145	143	146	145	145	144	184	175	195	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TJGS	ST2C	259	255	238	243	248	243	241	222	210	210	210	210	210	210	210	210	210	210	210	220	249	257	247	188	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	
YPKA	GT11	133	133	131	131	132	66	66	67	66	67	67	67	66	66	67	66	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67		
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
YPKA	ST10	58	58	58	58	58	35	34	35	35	35	34	35	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	
Total CCGT-Gas		6136	5809	5451	5535	5135	4871	4687	4486	4424	4273	4099	4113	4228	4245	3931	3494	3485	3893	4047	4235	4547	4832	4884	5077	4868	4886	4859	5152	5346	5677	5698	6103	6243	6287	6152	6032	5767	5859	6076	7039	7247	7407	7451	7575	7518	7479	7350	7350
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PTEK	GT2A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BSIA	HY02	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
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	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	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	-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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
KNRG	HY02	24	24	24	24	25	24	24	24	24	24	24	24	23	24	24	23	23	23	24	23	24	24	24	24	25	24	23	24	24	24	24	24	24	24	24	24	24	24	24	24	25	24	24	25	24	24	24	24
KNYR	HY03	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
KNYR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1																																				

Daily MW Generation on Sunday

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		
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10	9	16	20	37	42	50	54	50	56	46	18	57	53	51	46	26	33	14	12	14	6	1	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	1	5	11	16	24	30	32	32	41	43	38	45	43	28	28	26	29	22	16	11	12	5	5	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	6	29	47	78	119	148	177	183	210	211	215	229	185	228	204	187	195	133	124	97	70	66	29	4	0	0	0	0	0	0	0	0	0	0
PCUF	CUFG	35	35	38	39	37	37	38	38	38	38	38	37	38	38	38	37	38	38	37	37	37	38	37	38	39	39	37	37	37	37	39	38	38	38	39	38	38	38	34	35	36	36	36	39	38	37	38	37	
PCUF	CUFK	43	42	45	42	42	42	44	43	43	44	43	43	42	42	44	43	44	43	44	42	42	44	43	42	41	42	40	34	26	25	26	25	27	25	26	33	39	40	40	31	23	23	23	22	22	38	42	44	
Total Co-Gen		78	77	83	81	79	79	82	81	81	82	81	81	79	80	81	81	82	81	81	79	82	80	80	81	77	71	63	62	65	63	65	63	65	71	77	78	74	66	59	59	59	59	61	60	75	80	81		
Total Gen		15176	14846	14481	14403	13968	13722	13525	13337	13266	13116	12932	12897	12867	12902	12610	12065	12001	12411	12604	13094	13511	13845	13910	14228	14055	14146	14092	14427	14597	14744	14887	15067	15003	15121	14780	14639	14395	14413	14633	15698	16160	16394	16354	16518	16356	16274	16002	15762	
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	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-30	-29	-29	-29	-29	-29	-29	-30	-29	-29	-29	-29	-29	-30	-30	-29	-29	-30	-30	-30	-30	-29	-29	-30	-30	-28	-28	-29	-29	-29	-29	-29	-29	
TIE-PLTG		-9	-20	-48	56	24	2	28	49	-7	1	-45	-17	54	36	47	27	28	52	21	40	57	56	31	21	-59	-48	30	3	18	54	26	36	5	36	27	104	49	57	53	-38	-2	-23	-24	-5	29	34	-16	16	
Interconnection		-38	-49	-77	27	-5	-28	-1	20	-36	-28	-74	-46	25	8	18	-3	0	23	-8	12	27	26	1	-8	-87	-77	1	-26	-12	24	-4	7	-25	7	-3	74	20	29	23	-68	-30	-51	-53	-34	0	5	-46	-13	
System Total		15214	14895	14558	14376	13973	13750	13526	13317	13302	13144	13006	12943	12842	12894	12592	12068	12001	12388	12612	13082	13484	13819	13909	14236	14142	14223	14091	14453	14609	14720	14891	15060	15028	15114	14783	14565	14375	14384	14610	15766	16190	16445	16407	16552	16356	16269	16048	15775	
SRev ST-Coal		95	98	111	197	183	187	179	169	175	179	185	235	290	271	272	282	289	292	293	263	189	175	166	161	180	183	184	181	154	220	206	338	409	391	404	405	148	167	157	69	104	89	145	93	132	106	92	145	
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	0	
SRev CCGT-Gas		886	1070	774	537	865	579	763	964	1026	1177	1351	1337	1222	1205	1519	1956	1965	1557	1403	1215	903	618	566	373	294	441	601	461	410	224	486	435	295	251	386	506	771	819	1089	497	508	348	304	180	237	276	405	405	
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	
SRev Co-Gen		-6	-5	-11	-9	-7	-7	-10	-9	-9	-10	-9	-9	-7	-8	-9	-9	-10	-9	-9	-7	-7	-10	-8	-8	-8	-9	-5	1	9	10	7	9	7	9	7	1	-5	-6	-2	6	13	13	11	12	-3	-8	-9		
Syncon		1115	1115	1115	1115	1115	964	1115	1115	1115	1115	1115	1115	1115	1115	964	1115	1115	1203	1203	1203	1203	1117	1117	1029	1029	1117	928	1117	966	1016	1117	1117	1016	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	1117	
Hydro		142	141	141	141	140	270	141	142	141	141	141	141	144	141	269	145	147	147	144	147	144	144	144	238	196	233	181	231	178	309	140	138	211	195	162	161	161	180	144	339	117	401	402	434	400	484	397	139	
S.Reserve Total		2232	2419	2130	1981	2296	1993	2188	2381	2448	2602	2783	2819	2764	2724	3015	3489	3506	3190	3034	2821	2432	2044	1985	1793	1691	1877	2078	1802	1868	1729	1855	2037	2039	1862	2076	2190	2192	2277	2537	1875	1825	1718	1687	1439	1601	1683	1705	1837	