

Daily System Generation Summary on Thursday

Thursday, November 21, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,324 MW
Distillate	0 MW
Total TNB	2,324 MW
Total IPP	16,111 MW
Total Co-Gen	0 MW
Total System	19,967 MW

Generation Mix

Type	MWh	Percentage
Hydro	10,859	2.98 %
Gas	29,748	8.16 %
Total TNB	40,607	11.14 %
ST-Coal	193,983	53.20 %
ST-Gas	3,093	0.85 %
LSS	2,050	0.56 %
Gas	124,534	34.15 %
Total IPP	323,660	88.76 %
Co-Gen	719	0.20 %
Total Co-Gen	719	0.20 %
Total Generation	364,986	100.09 %
PLTG	-381	-0.10 %
HVDC	721	0.20 %
Interconnection	340	0.09 %
Net Energy	364,646	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:	16:30:00 Hour
Total Set On Bus	18,950 MW
TNB Generation	2,085 MW
IPP Generation	15,088 MW
Spinning Reserve	1,748 MW
Maximum Demand	17,209 MW
Net Energy	364,646 MWH
Load Factor	88.29 %

Fuel Cost

Total Cost:	66,951,457.39 RM
Cost per Unit	18.24 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	473
Hydro	325
Syncon	920
Thermal	161
Total	1,879

Time	Weather	Temperature
Afternoon	Hot	35
Morning	Sunny	25

Gas Usage

Station	(mmcsfd)
GLGR	53
PAKA	27
PGPS	38
SRDG	2
TJGS	108
Total TNB	229
CBPS	54
KLPP	102
MPSS	45
NPRI	137
PGLA	111
PLPS	95
SGB3	90
SGRI	145
YPKA	47
PKLG	31
Total IPP	858
Total Gas	1,087
Total Gas Required	1,087

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	14397	13658	13264	12865	12578	12646	12895	12956	13457	15162	16045	16631	16563	16307	16943	17177	17127	16706	15952	16182	16700	16394	15848	15509

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, December 05, 2019 8:42:45 AM

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

Daily MW Generation on Thursday

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	695	691	694	693	691	692	692	693	692	693	692	693	693	693	693	692	691	691	689	692	693	692	691	694	691	691	689	692	692	692	692	694																			
JMHE	U001	318	322	321	321	318	313	313	311	366	499	556	747	751	749	749	782	780	899	976	979	980	981	983	982	980	983	981	976	982	981	983	983	980	980	981	980	981	981	977	978	981	977	978	978	978	979					
JMJG	U001	670	668	666	667	668	667	665	587	343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
JMJG	U003	662	665	662	662	669	657	663	665	665	661	660	656	665	666	660	669	660	666	660	672	656	660	679	657	673	662	675	671	669	670	660	667	673	662	667	667	679	666	668	668	669	667	666	668	665	668	664	662			
JMJG	U004	947	861	782	781	782	779	781	782	783	782	782	782	783	783	783	920	963	962	958	961	958	958	956	957	960	960	958	959	960	958	962	958	960	961	962	962	962	958	961	958	958	961	959	886	804						
JMJG	U005	956	793	780	782	778	780	780	779	780	780	779	780	779	779	780	780	778	782	873	945	975	987	975	980	983	981	978	975	982	978	978	977	977	974	975	974	975	973	977	973	977	976	976	973	974	974	977	975			
PKLG	U003	284	285	282	284	283	284	282	281	281	284	281	282	280	281	281	283	281	283	283	284	283	281	283	284	283	281	283	282	281	283	282	283	281	283	282	280	281	282	279	280	282	283	282	282	281	281	281	281			
PKLG	U004	279	280	280	280	281	276	278	279	279	279	282	282	281	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	281	281				
PKLG	U005	465	460	462	463	463	460	462	459	463	462	463	462	452	462	458	462	462	463	463	462	462	460	463	466	462	464	466	466	464	467	462	467	462	467	468	468	468	468	468	468	465	464	468	468	466	468	468				
TBIN	U001	688	689	686	691	689	690	687	690	685	689	689	690	690	689	689	687	687	690	688	689	690	691	688	689	689	690	689	689	687	690	690	688	689	690	690	690	690	689	690	687	688	688	689	690	689	687	688	687			
TBIN	U002	692	696	692	693	692	691	692	695	688	693	694	697	693	695	691	692	692	692	694	693	692	686	693	690	692	690	692	695	691	691	693	689	693	693	692	689	689	691	691	696	690	690	693	695	695	691	681	692			
TBIN	U003	690	691	690	693	692	690	690	691	691	689	690	692	694	691	691	690	690	691	688	691	688	691	689	690	690	689	689	690	692	692	692	690	690	691	692	688	691	691	689	689	691	692	686	689	689	691	691	691			
TBIN	U004	969	882	792	783	783	783	782	782	781	783	781	783	783	782	783	785	782	782	872	961	981	982	983	983	982	982	983	982	983	982	983	983	984	982	983	984	982	981	982	983	981	983	982	982	981	984	981	981			
Total ST-Coal		8315	7983	7789	7793	7789	7765	7765	7696	7493	7296	7349	7544	7550	7543	7540	7551	7569	7579	8013	8300	8340	8351	8371	8348	8367	8336	8366	8369	8361	8358	8354	8354	8369	8354	8358	8356	8373	8363	8359	8365	8353	8347	8346	8359	8355	8350	8275	8195			
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				
PKLG	U001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	27	50	65	105	146	164	247	282	289	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	
Total ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	27	50	65	105	146	164	247	282	289	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	
CBPS	BLK2	362	362	361	361	365	358	359	359	357	359	361	358	362	365	358	358	362	360	362	360	361	362	358	360	355	357	360	360	359	355	356	356	355	361	354	361	358	358	358	360	357	359	361	355	352	359	355	359			
GLGR	GT01	68	67	66	68	68	66	68	68	68	67	68	68	69	69	69	68	69	104	99	100	111	111	112	111	110	111	110	109	98	99	99	99	99	98	99	99	99	88	86	99	98	99	99	99	99	99	99	99	99	99	99
GLGR	GT02	69	69	69	68	69	68	68	68	68	68	68	68	69	68	68	67	67	105	100	100	112	111	111	111	110	110	109	109	109	100	100	100	100	100	100	100	100	100	87	88	100	100	100	100	98	67	68	68	68	68	
GLGR	ST1C	70	70	70	70	70	70	70	71	71	70	71	70	71	71	70	71	88	91	91	99	101	102	101	101	101	101	101	101	91	91	91	91	91	91	91	91	91	87	80	91	91	91	91	91	91	91	91	91	91	91	
KLPP	GT13	126	135	135	135	134	135	107	101	102	102	102	134	133	134	133	134	134	131	129	132	132	134	134	129	133	129	132	134	134	134	129	133	128	133	132	133	133	134	135	133	133	133	124	112	119	113	122				
KLPP	GT14	135	116	0	0	0	0	0	0	0	0	0	0	0	0	44	156	154	146	141	154	150	152	153	138	156	138	142	157	149	154	149	140	156	141	149	155	155	157	153	152	151	143	136	127	129	127	137				
KLPP	GT15	140	153	154	154	153	153	118	113	112	113	113	115	113	155	154	151	153	151	145	143	152	150	150	151	140	151	139	143	154	151	153	149	143	151	144	153	150	150	151	151	152	152	147	135	126	129	129	137			
KLPP	ST17	198	198	138	133	132	132	115	116	115	115	116	116	117	133	133	133	200	200	196	200	200	204	200	200	196	200	196	201	204	200	200	200	200	196	200	204	200	200	200	200	200	200	200	196	192	192	190	196			
MPSS	GT01	90	87	87	87	91	87	87	87	88	84	84	88	89	91	87	86	88	106	88	104	86	86	101	100	101	85	86	102	99	100	99	100	100	99	69	71	70	88	105	104	103	86	71	71	71	72	72				
MPSS	GT02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	103	86	86	101	100	99	87	88	100	101	101	99	99	100	99	99	73	73	73	89	103	103	104	88	75	73	72	75	74			
MPSS	ST01	36	35	35	35	36	36	35	35	35	34	34	36	37	37	35	34	46	38	112	84	83	104	105	105	87	85	104	106	105	105	105	105	105	105	105	70	68	68	75	108	109	108	94	67	67	66	66	66			
NPRI	BLK1	514	514	512	515	518	511	511	511	517	513	515	511	515	518	514	515	517	516	515	509	515	509	510	511	508	513	515	515	515	511	510	511	510	514	508	515	514	515	515	514	512	512	510	509	500	512	505	508			
NPRI	BLK2	117	118	118	180	215	230	340	350	350	346	349	349	348	349	348	349	350	349	349	349	298	296	196	196	280	280	329	345	370	430	451	514	523	529	524	525	527	337	348	347	349	347	347	347	347	347	347	346	349		
PAKA	GT4B	75	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	80	80	80	80	80	80	79	80	80	79	80					
PAKA																																																				

Daily MW Generation on Thursday

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			
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	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				
Total Hydro		541	541	543	544	447	351	210	210	214	370	370	209	210	250	273	212	222	411	205	214	352	349	478	478	387	390	352	350	435	885	768	735	736	611	516	409	273	298	307	724	702	698	663	631	562	588	586	591		
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	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	0	0	1	4	6	12	14	19	21	23	25	25	26	26	26	26	23	19	21	21	21	11	8	3	2	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	3	5	8	13	17	32	18	18	27	30	23	22	18	16	13	14	17	14	7	4	2	1	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	3	3	21	11	12	43	43	33	48	32	11	11	21	11	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	7	15	23	30	34	40	44	46	49	50	50	52	50	48	35	46	15	31	35	22	16	9	3	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	3	6	9	11	11	21	25	19	24	16	9	7	8	7	10	12	35	11	17	8	4	1	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	2	6	13	19	27	31	35	38	40	42	44	45	45	43	42	39	35	32	26	21	15	8	3	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	1	3	7	10	20	9	6	32	44	46	6	14	8	24	9	21	20	17	11	6	4	2	1	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	3	11	11	11	20	48	26	44	48	44	28	48	54	45	38	16	11	14	10	9	5	1	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	2	7	14	21	29	28	30	41	42	42	43	44	35	38	37	35	33	29	24	17	10	5	2	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	6	36	80	116	176	180	245	290	321	336	307	271	252	270	235	232	166	193	156	111	74	38	14	0	0	0	0	0	0	0	0	0	0	0	0
PCUF	CUFG	23	24	23	22	22	22	23	23	24	23	23	23	24	23	24	22	22	21	21	22	21	21	20	20	21	24	24	23	22	21	22	24	25	26	26	28	28	28	28	26	31	30	29	32	32	31	32	37	46	
PCUF	CUFK	25	6	5	4	5	5	5	4	6	5	4	6	5	5	6	6	5	5	5	5	4	5	4	6	6	7	6	5	5	5	3	5	3	2	0	0	2	4	5	3	4	3	4	3	4	4	4	5		
Total Co-Gen		48	30	28	26	27	27	28	27	30	28	27	29	29	28	30	28	27	26	26	27	25	26	24	26	27	31	30	28	27	26	27	30	29	28	28	28	28	30	30	36	33	33	35	36	34	36	41	51		
Total Gen		14370	13971	13661	13425	13239	13138	12908	12776	12619	12657	12636	12719	12886	13166	12950	13016	13456	14604	15188	15794	16033	16367	16624	16728	16574	16447	16350	16589	16936	17184	17184	17082	17129	17202	16786	16464	15971	15721	16172	16698	16715	16561	16418	16219	15884	15763	15525	15187		
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		
TIE-HVDC		29	30	30	30	30	30	30	31	31	30	30	30	30	30	30	30	29	29	30	30	31	31	30	30	29	29	29	29	31	31	30	30	30	31	31	30	30	30	29	29	30	30	31	31	30	30				
TIE-PLTG		-56	-45	-27	-19	-55	14	13	-1	10	-6	-41	4	-39	-32	-37	18	-31	15	-4	4	-42	-73	-37	-58	-20	18	13	-35	-36	4	-22	-27	-28	-36	50	-7	-12	-64	-40	-17	-15	0	-5	28	13	-4	-1	6		
Interconnection		-27	-15	3	11	-25	44	43	30	41	25	-10	34	-9	-2	-6	48	-1	45	26	33	-12	-43	-7	-28	11	48	43	-6	-7	34	7	3	2	-7	80	24	19	-35	-10	13	15	29	24	58	43	28	30	36		
System Total		14397	13986	13658	13414	13264	13094	12865	12746	12578	12632	12646	12685	12895	13168	12956	12968	13457	14559	15162	15761	16045	16410	16631	16756	16563	16399	16307	16595	16943	17150	17177	17079	17127	17209	16706	16440	15952	15756	16182	16685	16700	16532	16394	16161	15848	15749	15509	15165		
SRev ST-Coal		178	382	396	380	383	407	406	426	379	368	312	370	362	371	374	367	373	468	415	183	143	132	112	135	116	147	117	114	122	125	129	129	114	129	125	127	110	120	124	118	130	136	137	124	128	133	136	152		
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	4	-1	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SRev CCGT-Gas		742	791	754	1043	1129	1170	1288	1370	1331	1250	1323	1276	1116	824	1062	1118	949	417	672	562	637	471	389	330	525	598	710	431	218	441	348	351	436	225	534	497	820	876	417	347	323	416	519	677	928	1111	1276	1330		
SRev ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	31	31	33	5	4	-14	42	7	0	1	1	1	1	1	1	1	1	0	41	38	38	38	38	40	41	38	38	36	36	38	38	38		
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		17	35	37	39	38	38	37	38	35	37	38	36	36	37	35	37	38	39	39	38	40	39	41	39	38	34	35	37	38	39	38	38	35	36	37	37	37	37	35	35	29	32	32	30	29	31	29	24	14	
Syncon		976	976	976	976	976	976	1077	1077	1077	850	850	1077	1077	1077	976	1077	1077	789	1077	1077	1077	1077	976	976	1077	1077	951	951	850	489	762	762	762	850	789	789	890	739	1077	825	976	976	976	976	976	976	976	976		
Hydro		245	245	243	242	239	235	275	275	271	342	342	276	275	235	313	273	263	355	273	279	291	294	316	316	306	303	342	344	360	471	315	348	347	509	429	325	310	436	325	410	281	285	281	228	255	315	317	312		
S.Reserve Total		2158	2429	2406	2680	2765	2826	3083	3186	3093	2847	2865	3035	2866	2544	2760	2901	2731	2099	2509	2144	2192	1999	1876	1803	2062	2160	2156	1878	1589	1566	1593	1629	1699	1748	1953	1813	2205	2244	2016	1769	1783	1883	1981	2070	2354	2602	2767	2822		