

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,043 MW
Distillate	0 MW
Total TNB	2,043 MW
Total IPP	17,353 MW
Total Co-Gen	0 MW
Total System	23,398 MW

Generation Mix

Type	MWh	Percentage
Hydro	11,433	3.23 %
Gas	53,188	15.05 %
Total TNB	64,621	18.28 %
ST-Coal	219,641	62.14 %
LSS	2,781	0.79 %
Gas	65,194	18.45 %
Total IPP	287,616	81.38 %
Co-Gen	558	0.16 %
Total Co-Gen	558	0.16 %
Total Generation	352,795	99.82 %
PLTG	60	0.02 %
HVDC	-699	-0.20 %
Interconnection	-639	-0.18 %
Net Energy	353,434	100.00 %

Maximum Demand Record

Date: 5/11/2023	19,716 MW
Date: 5/11/2023	416,902 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	20:00:00 Hour
Total Set On Bus	17,826 MW
TNB Generation	3,349 MW
IPP Generation	12,798 MW
Spinning Reserve	1,667 MW
Maximum Demand	16,159 MW
Net Energy	353,434 MWH
Load Factor	91.13 %

Fuel Cost

Total Cost:	81,699,870.80 RM
Cost per Unit	23.12 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	1,299
Hydro	147
Syncon	942
Thermal	266
Total	2,654

Time Weather Temperature

Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	46
TJGS	121
Total TNB	167
CBPS	40
EMPP	162
NPRI	116
PCGP	79
PLPS	35
SPGP	193
Total IPP	624
Total Gas	791

Total Gas Required 791

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	15991	15262	14749	14178	13664	13418	13300	13137	12917	13950	14654	15137	14861	14608	14993	15218	15232	15164	14764	15043	16159	16094	15620	15272

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, July 20, 2023 8:41:01 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Wednesday

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	706	704	705	709	703	705	708	710	704	705	706	707	706	705	706	708	704	705	709	705	706	708	704	706	704
JMAH	U002	708	708	701	706	701	701	702	707	701	704	704	703	704	708	704	700	707	707	709	702	706	702	703	706	705
JMHE	U001	969	969	970	972	971	901	900	902	902	899	850	848	848	849	846	848	852	851	853	850	936	957	962	956	952
JMHE	U002	498	500	500	500	499	499	501	500	502	499	499	502	500	500	497	499	499	502	500	500	500	500	499	500	499
JMJG	U002	673	673	678	672	674	678	674	671	675	677	673	675	672	675	675	674	672	675	677	673	677	675	667	673	674
JMJG	U003	497	500	540	545	548	548	574	603	590	596	629	669	654	649	645	649	647	643	590	612	660	676	674	673	674
JMJG	U004	982	983	983	976	980	952	901	906	904	904	900	908	905	909	902	903	905	902	907	902	923	959	962	958	963
JMJG	U005	709	710	729	753	752	826	902	903	904	851	850	850	858	851	848	850	851	850	852	847	868	948	965	960	963
PKLG	U003	264	280	279	277	279	278	277	277	227	146	148	158	155	150	150	150	151	151	151	150	151	151	150	151	151
PKLG	U004	281	277	275	274	276	276	272	271	255	201	157	147	147	148	149	149	149	149	148	150	149	150	149	149	150
PKLG	U005	468	465	407	257	158	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PKLG	U006	450	449	446	449	451	446	449	446	447	447	448	445	448	450	449	449	449	447	449	451	446	449	449	447	447
TBIN	U001	700	702	701	704	694	696	702	705	696	697	697	699	603	601	599	600	602	703	699	698	701	700	697	698	699
TBIN	U003	697	694	695	694	696	695	695	695	695	694	695	693	694	694	694	699	699	696	696	694	693	696	698	695	697
TBIN	U004	983	983	982	984	982	943	903	901	904	852	851	852	854	853	851	855	852	852	853	886	963	964	964	963	965
Total ST-Coal		9585	9597	9591	9472	9364	9218	9160	9197	9106	8872	8807	8854	8753	8740	8715	8727	8747	8834	8842	8777	8954	9200	9255	9238	9234
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	306	220	220	222	221	221	221	221	222	221	221	222	222	221	221	221	221	221	221	222	222	221	222	222	221
EMPP	BLK1	688	602	468	477	411	410	409	408	406	406	412	407	417	407	401	399	403	418	412	483	515	505	577	566	401
EMPP	BLK3	686	614	477	477	411	411	411	411	406	406	412	407	413	408	401	398	404	417	412	477	511	505	582	568	401
GLGR	GT01	104	103	105	105	104	104	84	82	77	75	76	75	66	66	66	66	66	67	68	66	66	66	66	66	66
GLGR	GT02	103	103	103	103	103	103	83	81	76	75	76	75	65	66	66	66	67	67	66	67	66	66	66	66	66
GLGR	ST1C	93	94	94	93	94	93	84	83	80	79	80	80	73	70	70	70	70	71	70	70	70	70	70	70	71
NPRI	BLK1	418	328	343	331	330	326	329	331	324	325	328	325	330	326	319	319	323	333	328	332	331	330	332	331	323
NPRI	BLK2	472	325	335	326	327	322	324	323	320	319	323	319	325	320	314	314	317	326	322	327	326	326	328	325	316
PCGP	PGRG	594	599	603	602	549	393	395	397	395	395	400	396	396	389	393	393	394	401	398	545	601	600	603	594	
PLPS	GT13	125	125	125	124	124	124	124	124	124	125	124	125	124	125	124	125	124	125	124	125	125	125	124	124	125
PLPS	ST18	57	58	57	58	57	57	57	58	57	58	57	58	57	57	57	57	57	57	57	57	58	58	58	58	57
SPGP	BLK1	721	721	718	717	718	718	635	476	439	540	439	439	438	539	362	361	362	478	715	718	718	718	717	718	719
SPGP	BLK2	711	720	727	726	726	721	663	587	438	468	443	438	444	441	484	348	351	444	636	719	728	729	726	725	715
TJGS	GT1A	121	124	127	127	136	134	138	136	134	137	134	136	138	137	136	130	138	138	139	135	138	137	137	134	137
TJGS	GT1B	110	114	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TJGS	ST1C	166	166	113	73	78	80	78	78	78	78	78	79	79	79	79	79	79	79	79	79	79	79	79	79	79
TJGS	GT2A	132	132	132	132	132	132	132	133	132	132	132	133	131	132	132	132	132	132	132	132	132	132	132	132	131
TJGS	GT2B	128	128	128	128	128	128	128	128	128	128	128	128	128	129	128	128	128	128	128	128	128	128	128	128	128
TJGS	ST2C	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191
Total CCGT-Gas		5926	5467	5176	5012	4840	4668	4486	4248	4027	4157	4055	4030	4038	4103	3945	3795	3827	4092	4499	4871	5005	4985	5135	5097	
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	HY01	20	20	20	20	20	20	20	20	20	20	20	20	12	12	12	12	12	12	12	12	12	12	12	12	12
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	7
CEND	HY02	7	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	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	7
CEND	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
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	HY03	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
HTRG	HY04	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

Daily MW Generation on Wednesday

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		
KNRG	HY03	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40		
KNYR	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		
KNYR	HY02	96	98	98	98	98	98	98	97	97	98	98	98	98	97	57	99	97	100	100	100	99	100	100	97	95	
KNYR	HY03	92	93	92	91	91	90	89	89	88	89	90	91	92	93	93	56	55	92	91	91	91	90	89	89	91	
KNYR	HY04	96	99	99	99	99	98	98	98	97	99	99	98	99	99	98	99	99	99	99	99	99	99	99	99	95	
LPIA	HY01	12	12	12	12	12	12	12	12	12	12	12	12	12	13	13	13	13	13	13	13	13	13	13	13	15	
LPIA	HY02	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	13	13	
MNOR	HY01	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	18	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
PGAU	HY02	-1	18	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	18	-1	-1	-1	-1	-1	-1	
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	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	30	30	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	16	30	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	22	23	15	15	
SYPS	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	17	17	
SYPS	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	17	17	
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	HY03	-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	35	41	51	41	64	77	66	59	40	42	78	43	43	42	43	43	46	46	45	45	46	46	46	46	37	
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	86	87	-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	HY02	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Total Hydro		434	465	455	444	467	478	466	458	456	443	480	445	447	447	457	358	260	441	436	441	442	465	445	443	444	434
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
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	7	9	9	7	9	9
BKLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	2	3	1	8	6	3	12	13	
BSLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	5	5	8	14	15	11	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	13	10	15	14	23	19	22	13	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	6	11	13	10	11	12	13	20	22	
GELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	7	6	6	7	6	10	13	13	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	9	18	35	
JELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	5	7	
JSLs	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	10	10	10	18	19	21	30	26	
KDLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	10	14	19	23	38	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	5	6	7	8	14	17	15	14	
KMLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	3	4	6	9	15	10	9	
KNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	7	12	20	0	6	9	27	24	32	
KRLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	2	4	0	2	3	8	7	9	10	
MALS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5	4	2	7	19	18	22	25	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	6	10	12	21	26	13	12	
MNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	5	9	16	21	41	49	25	25	
PKLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	19	31	34	44	44	47	39	38	29	39	
SNLS	LSS4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	6	0	4	4	5	16	20	17	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8	7	12	14	19	24	22	21	26	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	8	3	15	12	10	
STLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4	6	9	9	13	8	10	
TBLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	6	16	23	14	17	15	15	14	17	

Daily MW Generation on Wednesday

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 LSS		0	0	0	0	0	0	0	0	0	0	0	0	4	30	75	111	144	171	183	219	278	364	347	408	431	426	412	404	386	346	293	205	154	104	65	17	2	0	0	0	0	0	0	0	0				
ESTL	ESTL	0	0	0	2	0	12	14	14	12	14	19	18	20	13	9	10	17	16	15	18	16	16	16	9	0	-6	-4	0	0	0	0	0	-4	-8	0	0	0	0	0	0	0	0	0	0	-2	-4	0	-5	-2
KHTC	BLK1	-27	-27	-25	-24	-22	-24	-25	-19	-16	-11	-12	-16	-13	-15	-17	-18	-15	-18	-19	-19	-17	-18	-19	-19	-20	-22	-22	-24	-21	-21	-23	-23	-21	-22	-22	-20	-20	-20	-18	-20	-19	-21	-18	-20	-14	-14	-15		
PCUF	CUFG	4	4	2	14	17	16	16	16	15	15	16	14	16	15	5	3	3	3	12	16	17	16	15	16	16	17	15	16	15	3	3	3	3	3	3	3	2	3	2	3	2	4	3	2	2	2			
PCUF	CUFK	26	26	25	26	27	26	26	25	25	25	27	25	25	26	24	25	26	25	26	25	26	26	25	26	26	25	25	25	25	25	24	26	25	26	26	25	25	25	25	26	25	22	19	16	11				
PFTZ	PFTZ	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	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	4	4	4	4	4	4			
Total Co-Gen		7	7	6	22	22	30	31	36	36	43	50	41	48	39	21	24	35	30	39	44	43	45	43	43	35	24	18	21	20	23	24	21	9	7	1	11	12	13	13	13	12	12	12	11	6	12	3	0	
Total Gen		15952	15536	15228	14950	14693	14394	14143	13939	13625	13515	13392	13370	13286	13329	13138	12908	12899	13472	13927	14277	14615	14878	15097	15099	14814	14621	14599	14767	14981	15187	15193	15235	15209	15179	15126	14908	14740	14744	15021	15758	16159	16090	16059	15909	15609	15500	15263	14971	
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			
TIE-HVDC		-29	-29	-28	-28	-29	-28	-30	-31	-31	-30	-30	-30	-30	-30	-31	-30	-28	-29	-28	-30	-28	-30	-29	-30	-29	-28	-30	-29	-29	-29	-29	-29	-30	-29	-31	-28	-29	-28	-29	-28	-27	-29	-28	-29	-28	-31			
TIE-PLTG		-10	-28	-6	-25	-27	-10	-5	-19	-8	4	4	1	16	30	31	27	10	27	5	-4	-10	-12	-10	-21	-17	9	19	7	17	4	4	12	6	-12	-9	-4	5	-10	6	26	28	12	-5	9	18	-13	19	28	
Interconnection		-39	-56	-34	-53	-56	-38	-35	-50	-39	-26	-26	-29	-14	0	1	-3	-18	-1	-23	-34	-39	-41	-40	-50	-47	-20	-9	-23	-12	-25	-25	-16	-23	-42	-38	-34	-24	-39	-22	-3	0	-15	-35	-19	-11	-42	-9	-3	
System Total		15991	15592	15262	15003	14749	14432	14178	13989	13664	13541	13418	13399	13300	13329	13137	12911	12917	13473	13950	14311	14654	14919	15137	15149	14861	14641	14608	14790	14993	15212	15218	15251	15232	15221	15164	14942	14764	14783	15043	15761	16159	16105	16094	15928	15620	15542	15272	14974	
SRev ST-Coal		121	109	204	323	431	447	448	415	471	470	484	460	528	533	548	543	527	464	464	471	481	283	236	252	258	244	250	249	229	239	244	243	240	229	248	255	247	255	240	248	193	179	196	189	191	231	275	358	
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		983	1442	1733	1549	1721	1893	2075	2313	2534	2404	2506	2531	2523	2458	2616	2766	2734	2469	2062	1690	1556	1576	1426	1464	1824	1991	2066	1948	1737	1506	1490	1429	1406	1391	1331	1502	1647	1576	1244	633	406	495	532	603	763	789	896	969	
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		-1	1	0	1	0	0	0	0	0	0	-1	-1	-2	-1	0	1	1	0	-1	-1	1	0	0	1	-1	1	0	0	0	0	0	1	0	0	0	0	1	-1	0	0	-1	-2	0	1	-2	-1	2		
Syncon		978	827	978	978	978	978	978	827	978	978	978	978	978	827	978	979	978	978	978	978	827	978	978	978	978	978	978	827	978	978	978	978	978	978	978	979	979	791	640	978	978	978	978	978	978	978			
Hydro		125	245	104	115	92	81	93	101	254	116	79	114	112	112	253	201	198	118	123	118	117	245	114	116	115	125	124	248	113	113	112	111	111	111	112	113	245	114	102	178	277	422	71	155	150	154	152	180	
S.Reserve Total		2206	2624	3019	2966	3222	3399	3594	3807	4086	3968	4046	4082	4139	4080	4244	4489	4439	4029	3626	3256	3133	2931	2754	2811	3174	3339	3418	3272	3057	2835	2824	2761	2736	2709	2669	2848	2966	2924	2564	2038	1667	1735	1775	1925	2083	2150	2300	2487	