

Daily System Generation Summary on Thursday

Thursday, July 13, 2023

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	16,435 MW
Total Co-Gen	0 MW
Total System	22,480 MW

Generation Mix

Type	MWh	Percentage
Hydro	15,856	4.15 %
Gas	55,262	14.45 %
Total TNB	71,118	18.60 %
ST-Coal	214,689	56.14 %
LSS	5,901	1.54 %
Gas	91,062	23.81 %
Total IPP	311,652	81.49 %
Co-Gen	597	0.16 %
Total Co-Gen	597	0.16 %
Total Generation	383,367	100.24 %
PLTG	382	0.10 %
HVDC	534	0.14 %
Interconnection	916	0.24 %
Net Energy	382,451	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:	16:30:00 Hour
Total Set On Bus	18,981 MW
TNB Generation	3,991 MW
IPP Generation	14,001 MW
Spinning Reserve	969 MW
Maximum Demand	17,984 MW
Net Energy	382,451 MWH
Load Factor	88.61 %

Fuel Cost

Total Cost:	93,990,459.16 RM
Cost per Unit	24.49 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	400
Hydro	495
Syncon	392
Thermal	117
Total	1,404

Time	Weather	Temperature
Afternoon	Sunny	34
Morning	Rainy	28

Gas Usage

Station	(mmscfd)
GLGR	30
TJGS	139
Total TNB	169
CBPS	47
EMPP	282
KLPP	37
NPRI	135
PCGP	82
SPGP	198
Total IPP	781
Total Gas	949
Total Gas Required	949

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	15524	14701	14199	13810	13465	13257	13539	13693	14020	15537	16367	16892	16728	16489	17307	17730	17934	17849	16672	16551	17730	17756	17248	16858

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Friday, July 14, 2023 10:03:24 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

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	706	702	691	706	705	706	706	706	703	704	707	709	706	704	706	707	706	705	706	708	706	707	705	705	706
JMAH	U002	701	706	702	707	702	703	705	707	709	706	704	706	703	710	703	706	705	701	706	703	707	701	707	698	705
JMHE	U001	983	899	899	896	845	849	852	852	853	849	851	850	852	851	848	852	849	954	974	972	975	976	972	973	974
JMHE	U002	503	499	500	499	500	500	501	501	501	500	498	499	500	501	497	501	497	500	499	498	500	502	500	496	501
JMJG	U002	679	670	663	671	673	663	674	669	668	671	665	671	671	674	672	668	667	670	672	673	673	673	673	673	673
JMJG	U003	586	589	571	598	612	596	593	601	597	593	596	599	595	597	590	574	623	678	672	671	671	671	671	671	671
JMJG	U004	977	920	901	903	879	851	851	851	850	848	851	854	854	856	855	850	852	887	898	901	901	901	901	901	901
JMJG	U005	983	900	900	898	900	898	900	903	900	899	897	905	901	903	900	900	899	967	979	985	985	985	985	985	985
PKLG	U003	276	275	277	274	274	275	277	278	265	183	154	243	286	280	284	283	286	283	285	284	289	285	281	279	283
PKLG	U005	470	468	458	460	464	468	466	469	451	377	294	304	400	462	469	468	467	467	467	464	467	470	468	466	466
PKLG	U006	447	449	449	448	448	449	448	447	447	449	451	449	447	447	447	449	449	447	447	448	447	449	449	447	446
TBIN	U001	698	699	699	698	696	702	699	698	696	699	698	696	697	697	699	697	703	699	696	699	698	700	698	698	697
TBIN	U003	695	691	693	693	693	695	693	694	693	693	693	695	696	693	693	697	694	694	694	694	695	695	696	695	696
TBIN	U004	0	0	0	87	226	130	216	311	403	420	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total ST-Coal		8704	8467	8403	8538	8617	8485	8581	8687	8739	8590	8056	8180	8313	8377	8361	8349	8398	8655	8696	8697	8715	8711	8712	8690	8738
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	273	228	222	225	238	221	222	221	220	221	239	237	237	269	222	221	222	221	233	360	360	359	360	273	332
EMPP	BLK1	701	709	671	540	408	410	411	399	408	404	441	411	417	437	402	408	407	587	698	709	712	696	696	709	678
EMPP	BLK2	702	710	669	550	426	411	412	402	408	403	521	433	453	508	403	408	406	597	701	709	712	703	694	709	679
EMPP	BLK3	698	710	669	551	615	573	474	402	408	403	540	711	707	719	401	408	407	598	701	709	712	702	697	709	678
GLGR	GT01	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLGR	GT02	94	94	94	94	94	94	94	94	95	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	93
GLGR	ST1C	75	40	42	39	41	41	41	41	41	40	40	40	41	42	42	42	42	41	40	41	40	41	41	41	41
KLPP	GT15	114	116	116	116	116	116	116	117	116	122	116	119	122	117	117	116	116	109	109	114	109	109	108	109	109
KLPP	ST17	64	62	62	62	62	62	61	62	62	63	62	62	63	62	62	62	60	60	62	60	60	60	60	60	60
NPRI	BLK1	346	489	349	344	331	329	331	320	323	321	353	331	332	352	322	323	326	331	332	496	529	493	514	525	509
NPRI	BLK2	341	449	324	349	326	323	327	316	317	316	348	326	326	352	314	320	321	327	326	444	525	515	515	519	508
PCGP	PGRG	600	602	594	592	398	396	400	396	396	400	409	401	405	414	399	402	595	602	600	602	611	596	596	600	588
SPGP	BLK1	719	718	717	719	719	721	636	536	437	439	439	440	439	438	713	636	722	720	720	716	716	710	706	698	696
SPGP	BLK2	721	729	719	719	728	726	640	526	434	431	452	441	443	452	711	714	723	730	727	727	725	711	715	714	705
TJGS	GT1A	127	128	133	137	134	139	135	132	136	137	139	138	136	137	135	136	137	139	137	139	135	139	232	233	198
TJGS	GT1B	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TJGS	ST1C	161	77	79	80	79	79	79	77	77	79	80	79	79	79	78	79	78	79	78	79	116	121	104	80	79
TJGS	GT2A	131	130	131	130	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	156	198	216	216	190	131
TJGS	GT2B	129	129	129	128	127	129	129	128	129	129	128	129	129	128	129	129	129	129	129	128	154	196	214	214	186
TJGS	ST2C	191	191	192	191	191	192	191	191	191	191	191	192	191	192	192	192	192	191	191	191	199	237	251	251	244
Total CCGT-Gas		6357	6311	5912	5566	5164	5093	4831	4490	4329	4317	4731	4711	4741	4929	4867	4821	5111	5695	5998	6315	6608	6638	6826	6880	6627
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	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
BSIA	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
BSIA	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
CEND	HY01	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	HY02	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9	9	9	9	9	9
CEND	HY03	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
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

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		
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		
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		
KNRG	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	22	23	22	22	23	23	23	
KNRG	HY02	25	25	25	25	25	25	25	25	23	24	24	24	23	23	23	23	25	24	24	23	24	23	23	23	0	
KNRG	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	20	21		
KNYR	HY02	95	100	100	99	99	100	99	95	93	93	100	100	98	96	99	100	99	100	100	99	100	100	100	99	97	
KNYR	HY03	92	94	93	92	92	91	90	88	87	88	92	92	93	93	92	92	91	90	89	89	88	88	91	92	92	
KNYR	HY04	95	100	100	100	100	99	95	93	94	100	100	100	98	96	99	100	100	100	100	99	100	100	100	98	97	
LPIA	HY01	14	14	14	14	14	14	14	14	14	14	14	15	15	15	16	16	16	16	16	15	15	15	15	15	15	
LPIA	HY02	13	13	13	13	13	13	13	13	13	13	13	14	15	15	14	15	14	14	14	15	15	15	14	14	14	
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	-1	-1	-1	-1	-1	-1	17	20	20	20	20	20	21	20	-1	-1	-1	
PGAU	HY02	-1	-1	-1	18	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	20	20	20	20	20	20	21	21	-1	-1	-1	
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	21	21	21	18	21		
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	50	50	50	0	0	
SIHY	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	50	50	50	0	0	
SIHY	HY03	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	50	50	50	0	0	
SYPS	HY01	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	23	23	24	24	0	0	16	
SYPS	HY03	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	25	25	0	0	
SYPS	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	25	25	0	0	
TMGR	HY01	-1	-1	-1	0	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	77	77	77	-1	
TMGR	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	85	83	83	81	82	38	40	
TMGR	HY04	40	47	41	44	56	41	39	41	39	77	59	62	85	39	40	41	43	42	62	85	41	40	41	40	41	
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	92	93	137	183	180	185	174	-1	
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	89	99	176	177	101	93	109	85	-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		503	445	438	459	451	437	434	421	418	418	474	457	478	484	433	428	434	468	465	467	488	534	549	563	489	491
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	0	0	0	0	0	0	0	0	0	0	0	
BKLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	8	14	11	10	25	27	28	20	29	
BSLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	6	11	22	19	23	20	7	24	23	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	13	21	26	29	32	20	29	7	12	14	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	14	18	26	26	32	23	27	37	22	12	
GELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	11	14	14	8	24	22	29	15	28	28	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	9	18	12	14	17	2	4	5	6	
JELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	9	18	17	21	27	11	19	4	8	
JSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	11	17	19	13	37	43	41	42	42	45	
KDLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	18	21	18	33	71	77	90	59	92	91	91	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	7	9	15	33	35	46	45	37	17	27	
KMLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	7	10	17	28	26	11	31	30	26	
KNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	21	52	42	81	48	81	94	100	36	48	
KRLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	17	20	22	19	30	30	28	21	30	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	21	22	17	37	40	40	38	33	23	
MNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	16	69	71	48	78	91	80	84	72	59	
PKLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	10	25	31	53	73	68	78	88	93	98	101	101	
SNLS	LSS4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	12	17	30	42	26	29	47	50	32	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	14	15	20	22	50	47	47	55	43	27	

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																								
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	9	18	14	26	17	14	15	42	23	9	10	19	30	33	24	19	11	1	2	2	1	0	0	0	0	0	0	0	0			
STLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	3	15	17	14	15	26	19	28	25	28	30	10	19	3	9	5	1	0	0	0	0	0	0	0	0	0	0	0	0			
TBLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	12	20	21	30	30	30	30	27	30	24	12	26	19	16	4	6	12	22	3	0	0	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	9	70	175	334	471	519	728	779	818	827	878	729	758	765	695	623	554	528	475	390	322	195	128	42	2	0	0	0	0	0	0	0	0	
ESTL	ESTL	0	0	2	18	12	16	16	17	16	22	19	23	26	19	23	24	20	20	19	18	16	18	17	18	17	16	17	8	22	12	10	16	18	16	17	16	17	18	18	16	17	18	17	22	17	16		
KHTC	BLK1	-26	-25	-24	-23	-23	-21	-23	-19	-19	-19	-17	-19	-19	-18	-18	-16	-22	-23	-27	-25	-29	-32	-33	-34	-31	-29	-40	-35	-35	-41	-41	-34	-29	-31	-32	-30	-28	-26	-30	-27	-29	-28	-26	-26	-23	-19	-23	-24
PCUF	CUFG	5	5	4	4	4	4	5	5	4	5	5	5	5	4	5	5	5	5	5	5	5	4	5	5	5	5	5	5	4	4	4	4	5	6	5	5	5	4	5	4	5	6	5	5	6	5		
PCUF	CUFK	26	24	26	24	25	26	27	26	26	26	24	25	26	26	25	24	27	25	26	27	29	26	26	26	26	26	26	27	26	27	26	25	25	25	26	26	27	27	26	27	27	28	27	26	26			
PFTZ	PFTZ	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
Total Co-Gen		9	8	12	27	22	29	29	33	31	38	35	38	42	36	38	40	34	31	27	29	26	21	18	18	22	24	12	16	18	2	17	12	16	20	19	19	22	24	22	28	26	23	27	27	30	40	31	27
Total Gen		15573	15231	14765	14590	14254	14044	13875	13631	13517	13363	13296	13386	13574	13826	13699	13647	14047	15024	15520	15979	16356	16632	16884	16969	16703	16513	16496	16958	17314	17651	17759	17938	17989	18012	17918	17389	16765	16515	16617	17361	17802	17845	17793	17617	17326	17174	16925	16525
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		35	37	38	38	38	38	40	38	38	37	39	42	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	29	29	31	29	30	29	31	31	29	31	29	31	29	31	31	31	31	28	
TIE-PLTG		14	13	26	52	17	17	25	15	14	20	-1	1	-4	-4	6	13	27	15	-17	-6	-11	-13	-8	-18	-25	-7	7	20	7	-7	0	43	24	-1	40	37	62	60	36	28	43	13	8	56	47	13	36	31
Interconnection		49	50	64	90	55	56	65	53	52	58	39	43	35	-4	6	13	27	15	-17	-6	-11	-13	-8	-18	-25	-7	7	20	7	23	29	72	55	28	69	66	93	91	66	59	72	45	37	87	78	44	67	59
System Total		15524	15181	14701	14500	14199	13988	13810	13578	13465	13305	13257	13343	13539	13830	13693	13634	14020	15009	15537	15985	16367	16645	16892	16987	16728	16520	16489	16938	17307	17628	17730	17866	17934	17984	17849	17323	16672	16424	16551	17302	17730	17800	17756	17530	17248	17130	16858	16466
SRev ST-Coal		156	392	448	384	379	564	473	517	465	494	470	442	420	381	392	404	353	135	94	93	75	79	78	100	167	100	264	182	201	82	106	133	95	167	201	268	239	119	85	91	88	90	127	101	146	131	156	174
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		1317	988	1259	1605	2007	2078	2340	2681	2842	2854	2440	2460	2430	2242	2304	2350	2060	1476	1173	856	563	533	345	291	544	856	765	501	269	244	260	233	259	237	315	234	612	922	893	317	292	284	319	288	298	321	515	911
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		0	0	-1	0	0	-1	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	-1	0	-1	-2	0	0	0	0	0	0	-1	2	0
Syncon		890	890	890	651	890	802	802	890	890	890	890	802	739	890	802	890	890	739	739	802	890	703	552	552	588	588	588	401	214	214	126	0	0	0	0	651	802	890	802	615	302	302	302	489	676	464	703	552
Hydro		157	115	122	253	109	124	127	139	142	142	86	104	233	76	128	132	126	251	254	102	80	221	357	343	381	379	377	473	526	622	726	699	588	566	612	361	324	318	272	436	493	493	497	543	445	343	212	345
S.Reserve Total		2607	2472	2805	3067	3472	3741	3916	4314	4426	4468	3973	3982	3911	3676	3800	3863	3516	2688	2347	2027	1695	1622	1419	1373	1767	2010	2081	1644	1297	1250	1218	1065	943	969	1128	1513	2064	2248	2137	1546	1175	1169	1245	1421	1565	1345	1588	1982