

Daily System Generation Summary on Friday

Friday, July 21, 2023

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,168 MW
Distillate	0 MW
Total TNB	2,168 MW
Total IPP	17,463 MW
Total Co-Gen	0 MW
Total System	23,633 MW

Generation Mix

Type	MWh	Percentage
Hydro	16,406	4.38 %
Gas	56,779	15.14 %
Total TNB	73,185	19.52 %
ST-Coal	224,815	59.96 %
LSS	5,926	1.58 %
Gas	69,899	18.64 %
Total IPP	300,640	80.18 %
Co-Gen	195	0.05 %
Total Co-Gen	195	0.05 %
Total Generation	374,020	99.76 %
HVDC	-915	-0.24 %
Interconnection	-915	-0.24 %
Net Energy	374,935	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	18,769 MW
TNB Generation	4,486 MW
IPP Generation	13,086 MW
Spinning Reserve	1,205 MW
Maximum Demand	17,594 MW
Net Energy	374,935 MWH
Load Factor	88.79 %

Fuel Cost

Total Cost:	88,412,960.50 RM
Cost per Unit	23.58 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	521
Hydro	349
Syncon	653
Thermal	120
Total	1,643

Time Weather Temperature

Afternoon	Hot	33
Morning	Sunny	29

Gas Usage

Station	(mmscfd)
GLGR	46
TJGS	154

Total TNB 200

CBPS	45
EMPP	170
NPRI	155
PCGP	80
SPGP	184

Total IPP 635

Total Gas 835

Total Gas Required 835

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	15191	14364	13939	13547	13158	13016	13346	13426	13715	15256	16078	16569	16437	16094	16437	17345	17579	17424	16396	16368	17594	17500	16941	16746

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Monday, July 24, 2023 10:50:00 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Friday

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	707	705	706	705	706	705	706	707	705	705	708	706	707	701	703	706	707	706	707	705	705	707	706	705	705	704																							
JMAH	U002	705	706	708	705	701	705	704	705	702	703	708	708	703	704	700	705	705	706	699	701	703	706	706	707	701	398																								
JMHE	U001	973	951	908	901	899	903	897	849	851	852	852	850	847	851	847	853	925	976	977	977	978	977	972	972	976	975																								
JMHE	U002	499	498	500	500	500	502	500	498	500	500	498	499	500	501	499	501	499	498	500	501	499	499	502	499	549	700																								
JMJG	U002	676	669	674	672	673	673	673	677	672	668	677	672	673	671	673	669	674	677	670	672	675	671	673	675	677	629																								
JMJG	U003	569	491	446	446	430	418	418	422	420	418	417	433	447	489	521	538	612	593	601	604	609	605	598	603	607	677																								
JMJG	U004	981	951	943	899	903	902	906	902	903	904	900	906	904	902	902	905	925	979	980	981	978	980	981	979	977	981																								
JMJG	U005	981	952	929	900	904	900	900	850	853	849	848	851	850	848	852	850	912	985	983	980	979	983	980	979	983	978																								
PKLG	U003	275	276	276	275	275	275	274	272	274	274	275	278	276	276	276	277	277	277	276	276	277	277	275	275	277	276																								
PKLG	U004	275	274	276	276	278	275	276	278	271	273	272	277	276	276	274	275	276	275	275	276	276	277	277	276	275	277																								
PKLG	U006	447	449	448	450	448	447	447	446	447	447	447	447	449	449	447	451	447	445	447	449	451	449	449	449	451	447																								
TBIN	U001	700	696	699	701	698	697	698	699	701	702	701	698	699	699	700	698	697	698	698	700	697	696	698	699	700	699																								
TBIN	U003	699	692	695	694	696	692	694	699	693	694	695	694	695	694	692	695	695	695	694	697	696	695	697	697	694	695																								
TBIN	U004	978	951	937	903	903	903	904	853	854	854	853	853	850	851	854	853	891	981	982	984	982	983	983	986	982	980																								
Total ST-Coal		9464	9263	9144	9028	9013	8998	8996	8856	8848	8843	8849	8873	8874	8916	8945	8976	9242	9486	9485	9504	9504	9516	9508	9517	9503	9498	9497	9498	9479	9483	9488	9485	9486	9483	9466	9518	9638	9675	9672	9701	9696	9669	9701	9753	9761	9775	9719	9346		
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	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	222	220	221	222	221	222	221	222	222	221	222	222	221	222	221	222	222	244	360	360	360	313	222	222	221	221	303	354	354	353	353	353	355	350	302	262	324	359	359	360	359	360	360	360	353					
EMPP	BLK1	512	412	399	410	405	409	399	409	400	411	412	409	410	423	411	413	415	414	408	576	650	711	637	708	674	700	476	436	624	717	710	711	702	696	711	687	671	551	704	708	707	708	704	478	464	464	463	462		
EMPP	BLK3	510	411	399	410	407	409	399	409	400	411	410	410	409	420	410	413	423	422	410	576	662	711	638	707	677	706	476	437	629	717	706	711	701	693	712	686	668	632	703	708	705	709	704	707	719	711	713	704		
GLGR	GT01	84	66	65	67	67	66	65	67	67	67	66	68	67	67	65	66	67	66	66	66	66	65	66	65	65	65	65	65	65	65	65	67	75	108	69	65	65	67	63	93	106	105	106	107	77	33	0	0		
GLGR	GT02	84	65	66	66	66	66	66	66	66	66	66	66	65	65	66	66	65	65	66	66	66	65	65	66	65	65	65	65	65	65	65	65	65	65	65	65	65	63	93	106	105	106	106	74	94	94	94	0		
GLGR	ST1C	83	77	71	70	71	70	70	71	70	71	70	70	70	71	70	71	70	70	70	70	71	70	71	72	71	71	71	71	71	71	71	70	72	97	79	71	71	71	71	83	96	97	97	97	83	68	42	43		
NPRI	BLK1	519	520	509	526	517	521	514	489	424	377	330	362	472	533	500	412	441	529	525	527	526	527	524	515	509	515	520	520	521	520	521	515	521	522	518	507	413	418	505	475	521	521	506	479	523	521	523	523		
NPRI	BLK2	519	524	511	525	517	521	511	473	419	372	325	353	451	528	494	409	411	515	489	511	520	525	522	525	520	523	520	524	525	526	525	527	519	521	525	496	322	343	457	518	497	473	515	517	530	526	529	520		
PCGP	PGRG	592	596	395	399	395	397	394	401	397	401	399	401	401	405	397	400	401	500	505	601	599	604	602	601	595	601	596	604	602	611	602	605	595	595	605	586	595	603	599	594	596	594	590	592	612	602	607	597		
SPGP	BLK1	720	720	720	647	551	450	362	360	360	360	362	360	360	362	361	360	361	499	711	715	715	713	710	710	711	705	704	704	701	698	701	700	701	704	701	703	701	704	700	708	708	711	712	715	715	716	717	717		
SPGP	BLK2	719	720	709	653	545	443	435	361	360	361	364	363	366	366	365	364	502	718	719	719	718	713	714	715	717	715	716	715	717	715	716	715	715	716	716	716	710	714	715	715	715	717	716	714	725	728				
TJGS	GT1A	137	134	135	140	140	139	130	136	129	135	134	137	138	140	136	136	135	137	135	134	137	135	137	139	134	138	138	138	124	125	225	222	222	222	223	119	122	124	148	222	223	226	218	222	224	224	224	223		
TJGS	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	126	115	116	215	213	211	208	205	107	111	112	140	210	211	210	210	212	210	210	210	211		
TJGS	ST1C	79	79	77	79	78	79	78	79	78	79	79	79	79	79	79	79	79	79	79	79	79	79	79	81	81	85	166	165	248	250	253	251	250	174	167	166	169	245	251	251	250	248	252	251	250	250				
TJGS	GT2A	131	132	132	132	132	132	132	132	132	132	132	132	132	131	129	132	132	131	132	131	133	131	215	217	171	130	131	132	131	155	229	229	230	230	217	142	133	132	133	216	216	217	217	217	217	216	216	217		
TJGS	GT2B	129	129	129	129	129	129	129	129	129	129	129	129	128	129	129	129	128	129	129	129	129	129	129	129	129	129	129	152	228	230	230	229	215	140	129	130	130	210	214	214	214	214	215	215	214	214	214			
TJGS	ST2C	192	192	191	192	192	192	192	192	192	192	192	192	192	191	192	191	191	192	192	192	192	192	191	191	191	191	191	194	258	262	262	264	250	207	192	192	192	192	251	250	250	250	250	250	250	250	250			
Total CCGT-Gas		5232	4997	4729	4667	4433	4245	4097	3996	3845	3784	3691	3753	3957	4133	4025	3863	3905	4472	4859	5314	5509	5737	5809	5940	5700	5559	5100	5165	5596	5915	6439	6446	6437	6515	6415	5827	5491	5328	5749	6377	6481	6465	6474	6237	6241	6175	6137	6106		
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	0	0	0	0
BSIA	HY01	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	19	19	19	19	19	20	19	20																				

Daily MW Generation on Friday

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	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	38	24	23	24	37																			
KNRG	HY03	40	39	39	40	40	39	40	40	40	39	40	39	40	39	40	39	39	39	39	39	38	38	38	38	20	20	20	38																			
KNYR	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	99	99	101	99	98	100	98	101	98	99	102	102	97	101	101	99	98	102	100	102	100											
KNYR	HY02	97	98	97	97	98	98	97	99	98	99	100	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	97	99	99	99	97	99	99	99	99												
KNYR	HY03	93	93	91	91	90	90	89	89	89	89	90	91	92	93	93	93	92	91	91	90	90	89	88	88	89	90	91	93	93	93	94	93	93	91	91	89	90	88	89	90	90	90	93	93	94	93	
KNYR	HY04	98	99	98	99	98	99	98	99	98	99	99	99	99	99	99	99	99	99	99	99	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98			
LPIA	HY01	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	11					
LPIA	HY02	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	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
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	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	18	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	82	21	21	21	23	22	22	20	21	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1				
PGAU	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	81	81	81	22	21	21	22	22	20	21	22	21	22	21	21	21	21	22				
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	81	80	109	109	22	22	51	23	23	20	22	0	0	0	0	0	0	0	0	0	0	0				
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	50	50	50	50	30	30	30	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50				
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	0	0	0	0	0	0	30	50	50	50	50	50	50	50	50	50	50	50				
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	0	0	0	0	0	30	50	50	50	50	50	50	50	50	50	50	50	50				
SYPS	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	23	24	24	25	17	17	17	25	25	24	24	17	17	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	19	25	25	25	25	17	17	17	25	25	25	25	17	17	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	0	0	0	17	25	25	25	25	17	17	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	33	33	33	33	33	-1	-1	-1	-1	-1	77	77	75	75	33	33	34	76	76	76	76	76	76					
TMGR	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	0	0	0	0	77	73	73	71	71	32	32	32	73	73	73	73	73					
TMGR	HY04	42	41	40	56	42	41	39	47	49	51	52	51	51	51	51	82	45	33	74	41	41	41	43	41	41	47	83	41	75	56	42	83	79	72	79	83	44	78	83	41	82	84	84	82	73		
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	90	94	178	179	184	174	88	-1	-1	88	89	87	86	-1	-1	95	88	88	88	88	88	88	88	88				
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	89	90	96	86	89	-1	-1	89	91	89	88	90	-1	-1	91	-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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
Total Hydro		445	445	440	458	443	461	438	449	428	432	434	434	434	435	436	436	435	506	448	437	476	537	535	458	442	541	540	547	590	738	797	1097	1096	1153	1338	1075	712	718	1032	1390	1391	1333	1221	864	857	825	951
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		
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	7	9	9	17	18	17	15	17	15	17	20	26	24	23	24	19	18	15	11	7	5	1	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	1	3	8	8	16	15	13	11	14	2	8	13	9	10	12	25	24	13	18	4	3	2	2	0	0	0	0	0	0	0	0	0	
BSLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	11	13	11	15	24	23	26	17	21	29	25	23	22	25	16	12	11	8	5	3	2	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	2	8	9	19	21	16	32	26	17	28	44	44	43	36	40	27	22	13	20	10	7	4	2	1	1	0	0	0	0	0	0	0	0
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	9	16	11	19	20	22	24	32	43	42	20	17	18	23	18	19	20	16	10	7	4	1	0	0	0	0	0	0	0	0	0
GELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	5	8	18	22	20	17	16	21	24	23	21	14	11	20	14	10	8	6	4	2	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	2	4	10	15	29	22	29	23	29	39	43	32	36	38	38	16	17	15	13	8	7	5	4	0	0	0	0	0	0	0	0	0	0
JELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	12	14	15	16	15	17	18	19	28	19	25	18	30	17	14	14	13	8	6	4	4	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	1	5	11	17	16	30	29	25	33	35	45	42	40	27	45	22	34	37	28	13	12	5	1	0	0	0	0	0	0	0	0	0	
KDLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	10	32	47	31	37	63	66	58	48	62	72	71	60	66	70	46	32	29	23	13	7	5	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	3	5	11	15	21	19	26	31	26	29	25	28	35	33	31	27	26	14	13	12	9	6	3	0	0	0	0	0	0	0	0	0	
KMLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	9	11	12	15	18	24	26	15	23	23	27	26	19	26	12	10	8	7	5	3	2	0	0	0	0	0	0	0	0	0	
KNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	13	33																														

Daily MW Generation on Friday

[illegible]