

Daily System Generation Summary on Friday

Friday, September 8, 2023

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,254 MW
Distillate	0 MW
Total TNB	2,254 MW
Total IPP	17,841 MW
Total Co-Gen	0 MW
Total System	24,097 MW

Generation Mix

Type	MWh	Percentage
Hydro	20,320	5.28 %
Gas	47,434	12.33 %
Total TNB	67,754	17.61 %
ST-Coal	220,709	57.35 %
LSS	6,013	1.56 %
Gas	89,583	23.28 %
Total IPP	316,305	82.19 %
Co-Gen	150	0.04 %
Total Co-Gen	150	0.04 %
Total Generation	384,209	99.84 %
PLTG	69	0.02 %
HVDC	-699	-0.18 %
Interconnection	-630	-0.16 %
Net Energy	384,839	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:	16:00:00 Hour
Total Set On Bus	19,057 MW
TNB Generation	3,735 MW
IPP Generation	14,235 MW
Spinning Reserve	1,089 MW
Maximum Demand	17,975 MW
Net Energy	384,839 MWH
Load Factor	89.21 %

Fuel Cost

Total Cost:	79,831,939.66 RM
Cost per Unit	20.73 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	578
Hydro	452
Syncon	486
Thermal	202
Total	1,718

Time	Weather	Temperature
Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	33
TJGS	79
Total TNB	112
CBPS	43
EMPP	277
NPRI	135
PCGP	84
SKSP	44
SPGP	200
Total IPP	783
Total Gas	895

Total Gas Required 895

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	16131	15339	14787	14291	13924	13698	13848	13878	14103	15659	16418	17085	16998	16843	17235	17899	17975	17701	16664	16559	17400	17098	16691	16266

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Monday, September 11, 2023 3:36:12 PM

(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	696	696	695	694	695	694	695	696	697	695	694	696	693	695	694	696	695	694	697	694	696	692	690	684	695	694	696	695	696	694	693	698	693	698	694	695	697	694	696									
JMAH	U002	695	697	693	694	695	696	694	697	693	696	692	697	693	697	693	694	695	695	695	697	695	695	696	694	696	695	695	696	694	693	696	695	697	695	696	694	696											
JMHE	U001	893	896	895	893	898	897	895	892	897	851	852	850	849	853	848	851	851	849	851	903	900	899	896	900	899	901	901	903	902	901	900	899	901	902	897	900	901	901	902	903	902							
JMHE	U002	973	975	974	969	974	976	973	901	900	852	851	852	851	847	853	852	847	849	853	937	971	975	971	974	977	973	976	979	976	972	978	978	978	978	979	980	977	981	979	979	981	977	975	975	974	972	971	970
JMJG	U001	666	668	664	669	668	667	668	662	671	664	678	664	669	668	673	666	671	674	660	672	669	665	672	656	662	667	670	667	671	661	668	668	667	669	664	673	666	662	601	616	688	676	681	685	680	667	679	686
JMJG	U002	668	671	673	671	669	672	668	671	670	671	673	671	659	671	672	666	673	669	665	667	671	671	672	670	667	673	673	670	668	670	669	672	674	665	669	669	671	671	671	671	667	671	671	672	667	668	666	668
JMJG	U003	667	673	666	662	671	659	668	669	666	672	668	666	669	657	670	670	666	666	668	665	668	661	669	674	670	657	668	648	593	601	604	587	605	601	584	611	593	596	599	596	604	601	593	597	596	612	596	606
JMJG	U004	980	977	976	976	977	975	922	905	903	854	854	854	854	853	855	854	854	856	852	881	934	983	977	975	976	973	975	977	979	979	980	979	978	979	976	974	976	977	976	977	981	983	979	977	981	975	972	979
PKLG	U003	279	278	278	280	277	278	280	279	279	278	278	278	280	278	280	278	278	276	279	278	277	279	278	278	282	280	281	278	280	279	279	279	275	278	277	276	277	279	280	278	277	277	280	277	278	278	278	
PKLG	U004	277	212	138	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	U005	350	350	350	350	350	350	350	389	414	422	430	433	407	413	422	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	462	
TBIN	U001	689	688	686	688	689	691	689	685	689	690	688	693	688	689	688	689	688	688	690	689	689	689	690	688	687	689	689	689	691	691	689	689	688	686	689	688	690	688	689	689	689	690	689	689	686	690	691	688
TBIN	U003	689	688	686	688	687	687	686	687	685	685	688	687	687	688	686	683	687	685	688	688	687	687	687	686	688	687	690	688	686	688	688	688	685	685	687	688	684	688	687	686	687	689	686	687	688	687	686	
TBIN	U004	983	984	982	979	983	982	940	904	903	861	854	853	852	854	851	853	851	853	884	931	975	982	983	983	983	981	982	981	985	983	984	984	983	983	983	982	981	987	983	982	983	983	983	983	982	983	982	
Total ST-Coal		9505	9453	9356	9273	9233	9224	9128	8998	9041	8885	8893	8889	8878	8854	8880	8876	8917	8920	8907	9121	9250	9334	9346	9342	9338	9333	9335	9338	9275	9280	9293	9273	9294	9273	9257	9283	9271	9266	9223	9232	9312	9291	9293	9293	9289	9287	9278	9297
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
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
CBPS	BLK2	286	209	206	208	211	206	204	210	208	205	212	211	212	210	207	201	211	210	213	204	202	210	233	358	353	256	207	211	290	361	360	365	362	361	361	361	205	210	211	362	359	356	353	361	302	215	212	211
EMPP	BLK1	681	705	410	409	419	409	404	433	411	411	416	435	460	491	409	399	412	613	710	684	680	710	709	704	680	699	696	711	700	709	696	718	710	711	704	699	697	572	680	711	685	691	686	712	688	719	710	702
EMPP	BLK2	699	705	702	411	422	410	403	437	411	409	417	436	462	493	408	399	411	622	710	684	681	710	710	698	680	701	695	711	703	708	696	717	710	711	706	692	698	571	679	709	685	691	686	710	689	719	711	702
EMPP	BLK3	678	692	703	694	423	410	403	438	412	410	417	436	464	491	408	400	410	622	710	684	681	709	711	699	681	699	695	711	705	708	696	717	707	711	704	691	700	709	710	710	687	691	681	710	690	718	710	706
GLGR	GT01	94	95	94	94	95	94	95	95	94	94	94	96	94	94	93	95	92	95	95	95	94	93	94	94	93	93	95	94	95	93	99	106	117	108	95	94	90	92	94	66	66	66	66	67	67	65		
GLGR	GT02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	35	69	90	92	65	65	65	66	65	65	66		
GLGR	ST1C	41	41	40	42	42	41	41	42	41	42	42	42	42	41	41	41	41	42	41	41	42	42	42	42	42	41	41	41	42	41	42	48	47	48	42	41	40	41	73	92	72	71	71	70	72	71	71	
NPRI	BLK1	509	316	313	310	324	320	314	323	320	323	324	325	323	318	311	324	320	322	520	517	526	527	522	515	523	515	515	515	511	511	503	511	512	511	513	388	308	307	513	511	503	503	512	506	316	309	308	
NPRI	BLK2	430	301	309	308	312	309	303	314	310	309	314	308	311	309	302	296	310	305	311	513	511	523	519	518	510	518	522	529	528	530	525	521	523	527	528	527	392	316	316	520	517	512	510	519	514	406	400	400
PCGP	PGRG	582	599	574	572	582	573	439	451	447	444	452	453	454	452	445	434	454	601	607	590	586	600	599	601	574	598	592	600	600	601	593	609	603	604	602	601	591	601	603	602	598	593	588	601	591	609	603	601
SKSP	BLK1	217	220	218	218	218	218	216	216	220	220	218	220	218	218	218	217	216	215	216	218	215	218	219	216	222	217	217	227	332	333	333	304	285	216	219	217	218	222	217	215	219	218	218	338	217	40		
SPGP	BLK1	717	718	717	720	717	718	719	720	720	720	501	501	499	645	719	721	719	718	719	719	718	715	713	709	707	709	705	707	703	701	698	701	696	701	707	706	711	711	714	717	718	718	718	717	719	717	717	
SPGP	BLK2	707	716	714	712	717	714	688	466	398	392	454	463	479	485	586	607	674	718	726	691	688	715	713	707	687	705	697	707	703	704	697	705	708	705	707	699	692	713	714	715	698	694	694	716	696	726	717	706
TJGS	GT1A	118	121	119	121	120	121	120	119	119	121	119	120	120	120	115	121	120	120	117	116	118	188	172	171	121	120	116	226	218	216	219	218	217	202	117	116	119	119	175	164	172	167	118	117	118	119	119	
TJGS	GT1B	116	118	118	121	122	119	118	120	119	118	120	118	122	122	118																																	

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	HY03	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
KNYR	HY01	96	96	96	97	96	97	96	96	58	57	59	60	60	60	59	56	55	96	96	97	96	97	97	97
KNYR	HY03	95	95	95	95	98	98	95	98	54	52	54	54	54	54	51	51	99	99	96	94	96	99	98	100
KNYR	HY04	58	57	58	58	87	60	58	98	59	88	99	99	98	58	56	91	98	62	57	64	60	80	65	85
LPIA	HY01	21	21	21	21	21	21	21	21	21	21	21	21	18	20	21	22	23	23	22	20	20	21	21	21
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
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	14	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	82	82	82
PGAU	HY02	0	0	0	73	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	83	83	83
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	21	
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	50	50	50	
SYPS	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14	14	15	15	15	16	16	16	16	16
SYPS	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
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
TMGR	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	82	80	80	
TMGR	HY02	35	36	36	36	34	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	86	86	
TMGR	HY03	31	32	12	32	32	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	81	
TMGR	HY04	39	41	41	41	42	40	39	44	43	40	41	41	43	43	41	39	42	44	75	39	40	47	74	
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	89	93		
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	94	89		
UPIA	HY01	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
UPIA	HY02	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Hydro		582	584	565	659	617	522	513	563	439	462	480	496	482	477	382	359	359	493	528	461	482	504	540	468
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
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	4	6	13	19	23	27	
BKLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	12	16	18	21	19	21	23	
BSLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	11	16	20	17	27	27	30	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	7	14	19	20	42	29		
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	9	17	18	25	32	13		
GELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	11	8	11	13	8	9		
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	16	23	29	35	40	43		
JELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	13	19	23	26	28	25		
JSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	10	14	13	30	25		
KDLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	22	33	46	59	45	71	41		
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	11	17	23	28	28	35	37		
KMLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	10	15	19	25	25			
KNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	29	44	57	69	71			
KRLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8	13	17	18	22			
MALS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	18	27	20	29	29			
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	9	11	15	28	32			
MNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	29	24	34	61	58			
PKLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	29	50	60	66	61	61			
SNLS	LSS4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	11	19	26	30	24			
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	10	23	29	36	31			
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	8	12	26	36	38			
STLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	5	7	9	10	17			

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	
TBLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	8	12	16	8	4	12	17	15	17	30	30	28	18	29	30	10	30	21	8	5	2	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	19	97	251	375	506	654	696	831	805	883	854	872	848	858	855	725	478	482	367	220	198	96	48	12	3	0	0	0	0	0	0	0	0
ESTL	ESTL	-8	-7	-4	0	0	0	0	4	8	6	0	2	2	0	7	7	0	0	1	0	0	2	6	7	0	16	16	0	13	14	12	10	14	10	14	12	11	10	2	6	11	6	4	2	10	3	8	9
KHTC	BLK1	-31	-27	-26	-26	-28	-24	-25	-25	-26	-24	-24	-23	-23	-25	-24	-26	-28	-31	-33	-40	-38	-43	-44	-44	-45	-46	-47	-47	-49	-52	-47	-53	-51	-51	-47	-43	-38	-41	-36	-38	-34	-34	-32	-31	-30	-32	-32	-31
PCUF	CUFG	20	20	18	15	16	17	18	18	18	18	18	18	19	18	20	18	19	17	18	17	16	16	16	16	15	14	15	15	15	15	15	15	14	14	14	14	17	16	18	19	19	17	18	17	18	19	18	
PCUF	CUFK	16	17	16	15	15	14	15	16	17	17	15	17	16	16	15	16	17	13	14	16	16	13	15	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
PFTZ	PFTZ	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	4	4	4	4	4	4	4	4	4	4	4	2	2	2	1		
Total Co-Gen		1	7	8	8	7	11	12	17	21	21	13	18	18	13	22	19	12	3	4	-3	-2	-8	-3	-1	-10	4	3	-12	-2	-2	0	-8	-2	-6	1	3	7	6	2	6	16	11	9	9	15	7	13	13
Total Gen		16125	15765	15331	15045	14746	14584	14285	14128	13891	13741	13653	13727	13806	14005	13841	13781	14070	15151	15599	16126	16398	16696	17057	17039	16975	16834	16777	16815	17188	17522	17888	17944	17968	17937	17699	17159	16671	16354	16516	17460	17383	17264	17094	16947	16671	16411	16227	15935
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		-31	-30	-28	-28	-28	-30	-30	-30	-29	-28	-30	-30	-28	-30	-29	-29	-31	-31	-28	-30	-29	-28	-28	-29	-30	-28	-28	-29	-28	-31	-28	-29	-29	-28	-28	-29	-30	-30	-28	-28	-29	-29	-31	-31	-30	-29	-29	
TIE-PLTG		24	11	20	4	-12	28	25	2	-3	-6	-16	-17	-12	14	-7	4	-4	23	-30	-7	10	-14	0	-9	5	-29	-37	-37	-19	-6	20	11	21	-2	26	33	36	33	-13	11	12	33	24	-12	11	-5	-11	8
Interconnection		-6	-20	-8	-24	-41	-2	-6	-28	-33	-35	-45	-47	-42	-14	-37	-24	-33	-8	-60	-35	-20	-43	-28	-37	-23	-59	-66	-66	-47	-34	-11	-16	-7	-30	-2	5	7	2	-43	-18	-17	4	-4	-43	-20	-35	-39	-21
System Total		16131	15785	15339	15069	14787	14586	14291	14156	13924	13776	13698	13774	13848	14019	13878	13805	14103	15159	15659	16161	16418	16739	17085	17076	16998	16893	16843	16881	17235	17556	17899	17960	17975	17967	17701	17154	16664	16352	16559	17478	17400	17260	17098	16990	16691	16446	16266	15956
SRev ST-Coal		196	202	226	231	182	191	287	413	410	468	452	457	465	510	499	508	463	462	476	371	286	202	190	194	198	203	183	156	171	166	153	173	152	173	189	175	175	180	203	140	134	155	153	153	157	171	168	149
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		889	1205	1524	1821	2037	2099	2294	2376	2536	2553	2659	2602	2498	2265	2369	2418	2241	1442	1141	885	912	756	583	501	640	755	845	774	432	354	302	216	223	248	305	681	1187	1583	1330	492	570	660	699	695	865	992	1173	1371
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 Co-Gen		2	1	0	0	0	0	0	1	1	2	0	-2	-2	0	-1	0	-1	-1	-2	0	0	0	0	0	0	0	0	0	-1	1	1	0	0	-1	-1	0	-1	0	0	0	-4	0	1	0	0	0	3	-1
Syncon		739	739	739	739	890	926	978	978	978	978	978	827	978	978	978	978	978	978	978	827	978	978	978	978	827	978	978	978	791	516	277	0	0	0	0	374	374	374	374	187	187	187	187	187	374	588	588	500
Hydro		324	322	341	397	288	347	269	219	343	320	302	437	300	305	272	295	295	161	126	218	348	175	139	211	352	207	211	190	303	474	599	631	714	580	605	401	404	320	328	413	499	502	633	784	705	439	439	420
S.Reserve Total		2150	2469	2830	3188	3397	3563	3828	3987	4268	4321	4391	4321	4239	4058	4117	4199	3976	3042	2719	2452	2373	2111	1890	1884	2017	2144	2217	2098	1696	1511	1332	1020	1089	1000	1098	1631	2139	2457	2235	1232	1386	1504	1673	1819	2101	2190	2371	2439