

Daily System Generation Summary on Friday

Friday, October 23, 2020

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,222 MW
Distillate	0 MW
Total TNB	2,222 MW
Total IPP	18,506 MW
Total Co-Gen	0 MW
Total System	22,619 MW

Generation Mix

Type	MWh	Percentage
Hydro	22,832	6.39 %
Gas	30,687	8.58 %
Total TNB	53,519	14.97 %
ST-Coal	237,401	66.41 %
ST-Gas	97	0.03 %
LSS	2,660	0.74 %
Gas	64,626	18.08 %
Total IPP	304,784	85.26 %
Co-Gen	156	0.04 %
Total Co-Gen	156	0.04 %
Total Generation	358,459	100.28 %
PLTG	266	0.07 %
HVDC	730	0.20 %
Interconnection	996	0.28 %
Net Energy	357,463	100.00 %

Maximum Demand Record

Date: 3/10/2020	18,808 MW
Date: 3/10/2020	394,238 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:00:00 Hour
Total Set On Bus	17,882 MW
TNB Generation	2,885 MW
IPP Generation	13,935 MW
Spinning Reserve	1,052 MW
Maximum Demand	16,808 MW
Net Energy	357,463 MWH
Load Factor	88.61 %

Fuel Cost

Total Cost:	44,623,526.05 RM
Cost per Unit	12.45 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	302
Hydro	352
Syncon	417
Thermal	252
Total	1,323

Time	Weather	Temperature
Afternoon	Hot	35
Morning	Sunny	27

Gas Usage

Station	(mmscfd)
GLGR	51
SRDG	11
TJGS	150
Total TNB	212
CBPS	49
KLPP	1
NPRI	138
PGLA	103
PLPS	53
PKLG	1
Total IPP	345
Total Gas	556
Total Gas Required	556

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	13959	13688	13217	12869	12652	12499	12696	12637	13024	14517	15360	15767	16041	15750	16148	16606	16808	16412	15474	16039	16546	16421	15948	15517

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, November 5, 2020 8:34:45 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	672	691	692	550	551	451	450	450	452	451	451	454	452	451	453	610	693	691	692	694	694	693	695	694	692	692	693	693	693	693	693	693	691	694	682	693	691	694												
JMAH	U002	695	692	694	551	555	452	454	453	454	451	453	453	453	453	453	644	695	698	692	693	693	694	693	694	693	695	693	694	692	693	694	693	692	699	691	693	693	689	694	693	692	692	692							
JMHE	U001	774	775	782	783	781	779	779	783	779	780	781	777	780	781	782	780	778	781	780	945	980	981	978	979	978	978	980	981	980	982	977	978	982	981	973	979	978	977	986	974	980	980	980	981	978	977	977	979		
JMHE	U002	774	774	779	781	783	778	780	785	779	784	782	778	780	783	783	781	780	781	779	935	982	979	979	980	979	979	983	978	980	985	976	980	983	982	976	980	978	981	986	977	980	982	981	981	982	981	976	983		
JMJG	U001	646	645	639	568	514	466	443	448	447	447	447	447	447	447	447	450	475	538	548	596	668	667	669	673	669	671	671	657	637	643	640	634	643	639	640	643	671	669	669	670	673	673	671	669	669	672	667	668	672	670
JMJG	U002	643	648	645	569	507	474	448	450	449	450	447	450	450	448	475	548	548	596	675	667	670	675	671	670	669	672	677	668	673	672	674	674	679	671	672	674	670	670	677	672	673	675	677	672	673	677	677	668		
JMJG	U003	642	645	640	561	524	490	438	447	442	445	447	447	447	444	476	547	543	587	663	667	634	637	636	635	629	634	632	658	663	668	662	657	668	666	660	667	666	666	662	671	656	669	660	671	662	664	660	662		
JMJG	U004	843	756	712	711	711	709	711	709	710	709	710	710	709	711	712	712	712	711	711	712	710	709	710	711	710	756	842	854	854	922	972	949	967	977	977	977	977	977	979	979	977	977	977	977	977	977	947			
JMJG	U005	731	729	730	732	728	728	731	733	733	729	731	731	729	732	731	733	730	731	805	800	803	803	800	804	799	801	803	800	805	797	801	801	799	800	801	800	803	804	799	801	800	808	797	803	801	803	801			
PKLG	U004	277	276	277	244	210	208	210	209	209	211	210	209	208	210	210	222	278	278	278	277	279	279	278	278	278	274	276	277	276	279	277	278	278	278	278	278	278	275	270	272	275	272	274	271	272	275	275	271		
PKLG	U005	467	467	467	431	407	376	358	359	359	358	359	359	358	359	361	369	384	458	468	468	466	466	469	466	467	466	467	468	466	467	467	468	467	467	465	467	468	467	468	468	467	465	467	466	467	466	467	466	467	
PKLG	U006	451	446	449	420	409	404	406	407	443	448	448	448	449	449	447	449	447	442	449	448	449	448	446	447	449	449	448	449	449	447	447	445	447	447	448	446	448	448	448	451	449	449	449	446	448	449	448	449		
TBIN	U002	697	693	694	690	694	694	690	686	691	689	689	693	691	693	694	689	692	693	690	685	692	693	688	692	688	690	692	691	690	692	689	694	689	690	693	686	690	691	691	693	689	693	693	688	693	693	692	693		
TBIN	U003	691	693	691	690	691	692	692	691	696	691	688	692	692	689	691	690	694	684	689	691	695	690	693	693	696	690	689	690	695	690	685	691	688	691	693	692	690	691	693	685	705	690	691	685	692	691	689	692		
TBIN	U004	928	840	782	784	780	782	781	779	782	782	782	782	783	782	781	782	781	781	852	941	982	983	982	982	983	982	984	982	981	982	982	982	982	982	982	981	982	982	981	983	982	982	983	983	982	983	983			
Total ST-Coal		9931	9770	9673	9065	8845	8483	8371	8389	8425	8427	8423	8428	8433	8430	8523	8731	8769	9373	9750	10208	10351	10403	10390	10390	10389	10373	10403	10517	10538	10538	10589	10643	10641	10649	10676	10682	10681	10682	10712	10678	10694	10693	10686	10679	10671	10687	10678	10651		
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		
PKLG	U002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	226	218	222	221	214	221	219	226	226	226	218	222	222	218	220	222	246	290	340	363	356	361	359	359	346	361	355	355	359	354	356	355	357	359	356	356	356	360	364	361	358	357	365	360	362	362	352	367		
GLGR	GT01	67	67	66	67	68	68	67	69	68	67	68	67	68	67	68	68	69	68	67	67	87	101	100	99	99	100	101	100	75	89	99	100	101	100	98	99	99	100	101	100	101	99	101	100	99	100	82			
GLGR	GT02	68	67	68	68	68	68	67	69	68	67	68	68	68	68	68	67	68	67	68	68	89	101	100	100	100	101	101	73	90	100	100	100	100	100	100	100	100	100	101	100	100	100	100	100	100	100	79			
GLGR	ST1C	72	72	72	72	72	72	72	72	72	72	71	72	72	72	72	72	72	72	71	72	81	91	91	91	91	91	91	81	82	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	84				
KLPP	GT15	121	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
KLPP	ST17	52	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
NPRI	BLK1	487	488	325	517	509	517	517	519	515	514	515	509	515	515	514	515	515	515	515	515	516	514	516	517	510	508	520	514	515	520	513	517	521	518	508	515	503	514	2	2	0	0	0	0	0	0	0	0		
NPRI	BLK2	449	443	441	518	509	517	518	520	515	516	517	510	517	518	515	515	517	517	517	515	517	517	518	517	511	511	520	515	517	519	512	517	522	520	508	515	504	512	521	526	525	525	525	528	526	525	510	529		
PCGP	PGRG	605	597	595	601	594	602	604	604	602	603	603	594	602	604	600	601	604	602	601	603	603	604	602	598	594	609	602	603	608	600	607	612	608	601	603	588	601	642	613	603	602	603	606	602	602	583	612			
PGLA	GT11	178	165	161	166	161	203	164	176	162	163	163	161	163	164	161	163	162	161	162	168	157	186	206	192	201	194	186	182	209	199	212	211	209	208	200	160	178	199	212	198	195	194	197	202	199	158	209			
PGLA	GT12	181	167	164	168	163	208	168	178	165	165	166	164	166	166	164	165	166	166	172	166	170	161	190	208	194	202	198	188	186	213	201	214	214	214	209	202	161	180	202	215	200	197	197	200	203	205	160	212		
PGLA	ST10	207	207	201	201	200	221	207	205	203	201	201	201	201	203	203	201	201	203	208	202	204	213	208	228	219	235	212	233	210	237	237	237	239	239	237	232	204	213	212	241	229	235	213	215	235	232	202	222		
PLPS	GT11	129	128	129	129	128	129																																												

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		
BSIA	HY03	23	23	23	12	12	12	12	12	12	12	12	12	12	22	22	22	23	23	23	23	23	22	23	23	23	
CEND	HY01	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	HY02	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	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	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	
KNRG	HY01	0	0	0	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	
KNRG	HY02	0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	
KNRG	HY03	26	25	25	25	25	26	26	25	25	25	25	25	25	36	36	36	36	36	35	36	36	36	36	36	36	
KNYR	HY01	99	99	74	96	62	99	97	99	88	79	78	65	89	98	68	0	94	94	104	104	103	103	103	98	98	
KNYR	HY02	97	97	97	96	59	97	97	97	88	79	76	64	88	97	62	91	91	97	97	97	97	96	96	97	97	
KNYR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	95	94	94	94	94	94	94	94	94	94	95	94	99	
KNYR	HY04	99	98	98	96	65	99	98	98	99	99	60	61	68	98	62	94	91	96	96	96	97	97	98	98	98	
LPJA	HY01	19	19	19	19	19	19	19	19	19	19	19	18	18	18	18	18	18	18	18	18	17	17	18	19	19	
LPJA	HY02	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16	16	18	18	18	18	16	16	16	17	18	
MNOR	HY01	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	7	7	7	4	4	4	8	8	8	
PGAU	HY01	-1	-1	-1	21	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	81	81	22	21	-1	
PGAU	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	21	21	21	21	-1	
PGAU	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	
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	21	21	21	21	
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	50	50	31	0	0	0	31	50	
SIHY	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	31	50	50	31	0	0	0	31	
SIHY	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	50	50	30	0	0	0	31	50	
SYPS	HY01	0	0	0	0	0	17	17	17	17	17	17	17	17	17	17	17	25	25	25	17	25	25	25	25	17	
SYPS	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17	25	25	25	25	25	25	17	
TMGR	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	83	83	82	83	82	83	82	82	82	82	82	52	
TMGR	HY02	87	64	72	87	44	87	87	87	84	73	71	55	81	87	55	87	86	86	86	86	85	86	85	86	85	
TMGR	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	32	31	32	30	82	82	82	
TMGR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	84	83	83	83	83	83	83	83	83	83	83	83	83	
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	89	-1	88	86	-1	-1	-1	-1	
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	90	-1	94	94	183	185	162	110	
UPIA	HY01	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
UPIA	HY02	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Total Hydro		506	481	464	509	342	511	509	511	488	459	414	374	477	509	376	422	588	908	915	912	932	1063	982	1276	1266	1109
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	
BSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	14	20	23	27	29	14	7	13	16	30	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	8	13	13	16	18	23	24	19	16	21	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	13	23	24	30	32	37	33	32	29	25	
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	12	16	20	21	19	22	21	27	23	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	12	21	28	31	37	39	39	31	38	18	
JLSL	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	10	14	25	21	36	28	50	48	40	37	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	15	25	30	36	39	36	19	7	14	
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	6	15	19	24	26	29	29	29	30	10	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	10	13	18	23	25	26	27	30	32	31	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	9	17	25	33	39	45	54	37	56	40	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	13	19	25	30	34	35	39	39	33	29	
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	16	55	105	185	251	300	352	372	389	336	348	307	

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																									
PCUF	CUFG	3	3	4	3	4	3	3	4	3	3	2	4	4	5	3	2	3	4	3	4	5	3	3	2	4	4	4	3	5	4	4	5	3	3	3	4	3	4	3	3	6	2	4	3	5	3	4		
PCUF	CUFK	2	2	3	1	3	2	2	3	3	3	2	5	3	5	5	3	3	2	3	2	3	2	3	1	4	3	2	2	3	3	3	5	4	2	3	2	2	3	3	3	6	3	4	3	4	3	3		
Total Co-Gen		5	5	7	4	7	5	5	7	6	6	6	4	9	7	10	8	5	6	6	6	6	8	7	6	3	8	7	6	5	8	7	7	10	7	5	6	6	5	7	6	6	12	5	8	6	9	6	7	
Total Gen		14029	13963	13714	13528	13304	13120	12922	12774	12711	12586	12569	12540	12721	12871	12640	12650	13006	13989	14572	14976	15368	15707	15831	16198	16077	15934	15743	16018	16167	16469	16675	16783	16830	16787	16487	15988	15551	15548	16014	16660	16594	16486	16437	16194	15998	15938	15642	15420	
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		31	31	30	30	31	31	31	30	30	30	30	31	31	31	31	30	30	29	29	31	31	31	31	31	30	30	32	32	31	31	30	30	30	30	30	30	30	30	30	30	30	30	30	31	31	31			
TIE-PLTG		39	2	-4	45	56	32	22	-1	29	17	40	45	-6	35	-28	-18	-48	8	26	12	-22	13	33	17	6	54	-38	1	-12	-37	38	9	-8	18	45	26	47	65	-55	11	18	-67	-14	-54	19	10	94	12	
Interconnection		70	33	26	76	87	63	53	30	59	47	70	75	25	66	3	13	-18	38	55	41	8	44	64	48	36	84	-7	33	19	-6	69	39	22	48	75	56	77	95	-25	41	48	-37	16	-24	50	41	125	43	
System Total		13959	13930	13688	13452	13217	13057	12869	12744	12652	12539	12499	12465	12696	12805	12637	12637	13024	13951	14517	14935	15360	15663	15767	16150	16041	15850	15750	15985	16148	16475	16606	16744	16808	16739	16412	15932	15474	15453	16039	16619	16546	16523	16421	16218	15948	15897	15517	15377	
SRev ST-Coal		626	641	639	917	940	939	948	950	900	912	910	903	901	906	900	904	895	841	564	418	273	220	232	233	235	210	226	198	188	279	283	229	231	223	196	190	191	190	160	194	178	179	186	193	201	185	194	221	
SRev CCGT-Gas		983	1151	1159	873	918	777	626	674	766	862	859	900	875	752	786	874	758	750	631	748	568	466	267	210	264	251	377	386	425	209	253	185	156	166	211	242	613	413	131	125	186	191	205	186	174	183	331	349	
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 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	30	31	33	34	0	0	0	0	0	0	0	0	0	0	0	
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	31	-2	-5	-7	-7	71	-7	102	0	0
SRev Co-Gen		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Syncon		1102	1102	1102	951	1102	1102	1102	1102	1102	1102	1102	951	1102	1102	951	1001	827	827	827	676	640	827	453	453	640	827	827	489	640	302	302	151	151	338	676	914	914	338	0	0	0	187	338	338	525	525	827		
Hydro		45	70	87	193	209	65	67	65	88	117	162	202	250	67	200	205	89	76	69	72	203	233	177	297	307	277	183	124	297	216	296	422	514	565	612	572	375	471	501	382	425	536	372	479	599	510	387	62	
S.Reserve Total		2756	2964	2987	2934	3169	2883	2743	2791	2856	2993	3033	3107	2977	2827	2988	2934	2743	2494	2091	2065	1720	1559	1503	1193	1259	1378	1613	1535	1399	1344	1134	1138	1052	1135	1388	1713	2127	1988	1130	732	787	901	943	1189	1383	1446	1539	1459	