

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,293 MW
Distillate	0 MW
Total TNB	2,293 MW
Total IPP	15,713 MW
Total Co-Gen	0 MW
Total System	20,849 MW

Generation Mix

Type	MWh	Percentage
Hydro	14,749	4.05 %
Gas	36,302	9.97 %
Total TNB	51,051	14.03 %
ST-Coal	221,900	60.96 %
LSS	2,072	0.57 %
Gas	86,849	23.86 %
Total IPP	310,821	85.39 %
Co-Gen	1,281	0.35 %
Total Co-Gen	1,281	0.35 %
Total Generation	363,153	99.77 %
PLTG	-132	-0.04 %
HVDC	-698	-0.19 %
Interconnection	-830	-0.23 %
Net Energy	363,983	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	18,605 MW
TNB Generation	2,528 MW
IPP Generation	14,534 MW
Spinning Reserve	1,489 MW
Maximum Demand	17,134 MW
Net Energy	363,983 MWH
Load Factor	88.51 %

Fuel Cost

Total Cost:	77,456,482.26 RM
Cost per Unit	21.31 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	370
Hydro	387
Syncon	592
Thermal	155
Total	1,504

Time	Weather	Temperature
Afternoon	Hot	32
Morning	Sunny	25

Gas Usage

Station	(mmscfd)
GLGR	46
TJGS	95
Total TNB	141
CBPS	51
KLPP	65
NPRI	157
PGLA	104
SGB3	43
Total IPP	421
Total Gas	561
Total Gas Required	561

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	14579	13829	13333	12910	12668	12511	12878	13064	13635	15241	15984	16456	16414	16355	16940	16988	17134	16684	16058	16361	16528	16208	15646	15233

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Monday, December 6, 2021 7:01:54 PM

(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	698	697	697	693	629	626	574	504	455	412	351	428	426	425	507	506	694	698	697	697	696	696	697	696	696	697	696	696	697	693	696	695	695	696	698	694	697	695	695	694	693	696							
JMAH	U002	694	695	693	693	629	625	574	508	457	405	353	429	423	424	508	503	652	690	695	691	698	696	694	695	696	690	693	697	692	696	696	693	696	695	690	700	697	692	704	694	692	698							
JMHE	U001	897	899	851	851	852	850	848	850	851	850	850	846	850	850	848	848	903	967	980	980	978	978	979	976	977	981	981	981	979	976	981	974	976	980	976	984	982	977	979	980	981	982	977	979	978	981	979		
JMHE	U002	897	898	852	850	852	847	847	850	850	848	850	849	850	850	849	849	903	979	980	978	978	980	976	980	977	978	982	980	976	981	974	978	983	976	981	979	979	980	981	981	982	980	976	979	983	980			
JMJG	U001	607	608	608	623	626	624	617	625	628	623	626	626	630	625	626	626	626	570	491	497	461	391	400	403	442	491	495	497	496	496	496	497	497	623	667	643	645	644	646	646	649	621	628	626	615	596	590	563	
JMJG	U002	553	546	588	621	624	629	632	627	628	626	630	626	628	629	626	629	629	573	500	509	508	511	511	511	501	507	596	645	681	681	681	674	674	678	671	637	645	641	644	643	644	622	626	632	618	597	589	567	
JMJG	U003	604	603	605	618	622	626	623	629	626	629	623	622	623	624	626	623	570	496	461	450	448	446	445	447	447	447	445	447	510	600	663	663	660	656	643	645	653	640	640	649	612	633	627	619	595	581	568		
JMJG	U004	950	901	852	853	850	854	853	853	852	850	854	852	853	854	854	851	901	958	956	899	900	904	901	901	909	948	949	949	949	949	949	943	939	942	942	940	941	940	939	940	939	940	941	939	939	942			
JMJG	U005	888	891	847	844	849	854	848	851	850	852	850	852	852	850	850	850	891	888	890	895	892	889	886	887	888	894	894	894	894	894	892	892	892	891	890	892	892	890	891	888	894	891	892	891	889	890	892		
PKLG	U003	152	152	152	152	152	153	150	151	150	151	151	151	153	152	152	153	202	264	276	279	281	279	280	280	280	277	277	278	278	278	279	279	279	279	214	154	151	152	152	153	151	153	153	153	154	153	153		
PKLG	U004	156	155	156	156	156	154	156	154	154	152	156	155	156	158	157	156	162	196	196	198	251	277	281	277	276	278	276	270	273	273	274	277	277	276	277	213	176	156	155	154	157	155	161	160	158	158	157	158	
PKLG	U006	388	387	335	273	273	273	276	275	274	273	273	273	273	274	273	273	317	413	446	457	449	446	448	446	449	448	446	448	446	448	446	448	449	447	446	447	451	446	449	450	446	446	448	449	449	432	381		
TBIN	U001	690	691	601	484	411	358	352	351	348	349	352	350	351	351	350	351	352	534	599	681	689	688	687	688	687	689	687	689	689	689	689	689	689	690	688	689	650	631	631	689	689	687	687	690	687	686	687	687	
TBIN	U002	691	692	625	493	415	355	356	356	356	355	356	356	356	356	356	356	512	612	693	690	693	684	691	692	692	690	691	691	691	691	691	691	691	695	692	698	655	637	636	691	687	687	694	693	692	691	697	691	
TBIN	U003	689	690	601	491	404	349	352	353	353	352	353	352	353	352	352	546	600	691	692	692	691	692	691	691	691	691	692	692	692	692	692	692	692	690	691	688	670	632	634	692	690	684	695	690	692	691	691		
Total ST-Coal		9554	9505	9063	8695	8344	8177	8058	7937	7833	7729	7623	7770	7775	7774	7935	7932	8270	9006	9358	9644	9618	9573	9568	9575	9593	9664	9792	9846	9889	9948	10035	10101	10092	10216	10254	10044	9878	9777	9762	9937	9944	9855	9911	9895	9867	9791	9755	9646	
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	0
CBPS	BLK2	251	222	222	214	244	268	285	294	217	245	312	301	363	365	362	366	360	367	362	363	364	359	356	361	349	357	359	361	365	365	363	362	362	361	367	368	368	361	370	362	362	368	365	362	354	347	259	238	
EMPP	BLK1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	88	0	0	0	0	0	0	0	0	0	0	0	0	0		
EMPP	BLK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	206	206	375			
EMPP	BLK3	521	374	376	375	373	375	376	375	375	374	375	374	375	375	375	375	186	193	1	0	64	159	190	708	706	705	704	706	706	706	741	741	745	743	741	705	705	705	705	709	711	711	703	712	711	711	712		
GLGR	GT01	67	67	68	68	69	67	67	69	68	68	68	67	68	68	67	68	69	69	69	69	68	85	85	83	73	67	67	68	68	66	68	66	66	68	67	69	70	66	69	69	69	68	68	68	67	67	68		
GLGR	GT02	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	68	68	68	85	84	84	71	68	68	68	68	68	68	67	67	68	67	68	67	68	69	68	68	68	68	68	68	68	68	68	68	
GLGR	ST1C	71	72	72	71	71	71	72	71	71	70	71	71	71	71	71	71	71	71	71	71	82	83	83	80	71	72	71	71	71	71	72	71	72	72	72	71	72	72	72	73	71	72	72	71	71	71	72		
KLPP	GT13	120	119	119	119	120	120	119	120	119	119	120	120	120	119	120	119	121	116	120	119	138	141	123	119	110	110	111	110	111	111	110	140	114	113	117	113	109	134	134	134	113	127	128	124	127	127	128		
KLPP	GT14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	133	151	153	132	132	118	118	119	119	119	119	156	123	122	125	128	127	126	156	155	155	121	5	0	0	0	0	0	0	0	
KLPP	GT15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	140	140	140	140	140	140	140	140	140	140	140	140	75	0	0	0	0	0	0	0	0	0	0	0	0	0		
KLPP	ST17	65	65	65	65	65	65	64	65	65	65	64	65	65	64	65	65	66	65	60	145	137	211	208	207	200	199	200	201	200	201	204	205	200	200	195	134	133	145	143	143	133	92	67	65	66	67	66		
NPRI	BLK1	519	399	446	506	516	511	503	515	511	515	514	507	515	515	506	518	513	521	520	522	513	515	509	520	502	511	514	521	520	520	509	514	506	514	520	525	523	520	522	519	516	521	520	521	502	515	520	520	
NPRI	BLK2	524	405	447	493	516	514	499	519	514	517	518	505	518	518	509	521	518	524	521	526	518	500	488	520	482	515	518	523	523	522	504	515	496	514	524	526	526	522	527	524	518	524	522	523	484	520	524	523	
PCGP	PGRG	422	605	600	592	601	596	590	602	596	602	601	592	600	603	589	605	602	609	601	606	593	597	590	601	580	591	593	602	602	454																			

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
CEND	HY01	9	9	9	9	9	9	9	9	9	9	9	9	8	9	9	9	9	9	9	9	9	9	9	9
CEND	HY02	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
CEND	HY03	9	8	8	8	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
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
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
HTRG	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
KNRG	HY01	35	34	34	34	35	35	34	34	34	35	35	35	35	34	35	34	34	34	34	35	35	35	35	35
KNRG	HY02	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
KNRG	HY03	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
KNYR	HY01	0	0	0	0	58	58	59	58	58	58	59	59	58	59	83	93	72	92	64	62	60	72	60	65
KNYR	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	61	95	95	95	95	56	59	-1	-1	-1	-1
KNYR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	98	98	97	97	97	54	56	53	57	58	57	59
KNYR	HY04	97	79	67	59	82	58	0	0	0	0	0	0	0	0	60	94	94	56	58	55	59	59	59	60
LPJA	HY01	21	21	21	21	21	21	21	21	21	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22
LPJA	HY02	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
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	11	-1	-1	-1	-1	-1	18	-1	-1	-1	-1	-1	-1	-1	18	-1	-1	-1
SYPS	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
SYPS	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
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	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	HY02	83	44	45	44	58	47	42	44	44	44	83	86	43	77	55	86	43	77	43	45	44	45	41	41
TMGR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	82	82	81	81	81	81	-1	-1	-1	-1	-1
TMGR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	81	81	82	82	81	29	32	32	33	33	82
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	93	86	88	84	91	-1	-1	-1	-1	90	85
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	88	88	86	93	-1	-1	-1	-1	-1	-1	-1
UPIA	HY01	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
UPIA	HY02	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Hydro		421	351	340	331	370	359	307	299	297	318	298	298	338	352	296	351	334	629	763	1081	1164	1246	1054	1065
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	2	3	7	18	18	24	24	16	20	26	29
BKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	5	11	12	11	12	15	12	9	22
BSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	8	9	19	13	10	10	25	14	17
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	8	13	22	30	37	22	35	38	40
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	6	8	13	22	26	25	21	20	14
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	9	15	18	25	17	21	17	18	19
JELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	6	6	12	10	15	13	15	17
JSLs	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
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	13	13	18	17	16	32	32	17	15
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	8	12	16	18	20	26	20	16	30
MCLS	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
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	11	16	18	27	29	38	35	45	19
SSLs	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	14	10	12	15	17	32	35	29	38
STLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	9	13	16	18	18	14	8	14	14
TBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	16	20	21	30	27	20	26	28	18
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	4	31	90	121	166	223	246	272	276	339	278	287
PCUF	CUFG	31	29	28	29	29	31	28	28	27	26	27	28	29	30	28	28	27	28	28	26	25	24	28	28

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		
PCUF	CUFK	26	26	26	26	25	26	25	26	25	23	24	26	26	24	25	26	26	24	26	26	26	25	26	26	23	24	24	25	24	24	23	27	24	24	25	23	24	26	27	27	27	25	26	24	27	26	26	27	
Total Co-Gen		57	55	54	55	54	57	53	54	52	49	51	54	53	53	55	56	52	54	53	54	53	52	51	47	52	52	54	53	54	50	55	54	51	53	51	53	55	56	56	53	53	54	52	55	54	55	56		
Total Gen		14514	14162	13790	13484	13258	13091	12897	12845	12635	12582	12532	12641	12783	12993	13005	13071	13576	14568	15139	15669	15945	16259	16418	16510	16384	16228	16320	16560	16894	17013	16968	17043	17116	17115	16700	16299	16007	15832	16385	16654	16458	16389	16138	15967	15638	15426	15182	14942	
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		
TIE-HVDC		-29	-29	-30	-30	-29	-29	-30	-30	-30	-28	-28	-29	-29	-29	-29	-29	-28	-28	-29	-29	-29	-29	-29	-29	-29	-29	-28	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-30	-30	-30	-30	-29	-29	-28	-28	-29		
TIE-PLTG		-25	-27	2	-22	-34	-9	28	5	8	15	60	2	-55	-30	-19	-26	-18	-48	-62	-76	1	-11	2	-84	9	-39	5	-50	-7	-4	20	5	22	91	56	40	-11	-5	64	34	-29	-1	-29	-26	31	-2	-12	-2	
Interconnection		-54	-56	-28	-51	-64	-38	-2	-25	-22	-15	32	-27	-84	-59	-48	-55	-48	-78	-91	-104	-28	-41	-27	-113	-19	-67	-24	-79	-35	-34	-9	-24	-7	62	27	11	-40	-34	35	4	-59	-31	-59	-55	3	-30	-40	-31	
System Total		14579	14229	13829	13546	13333	13140	12910	12881	12668	12608	12511	12679	12878	13063	13064	13137	13635	14657	15241	15784	15984	16311	16456	16634	16414	16306	16355	16650	16940	17058	16988	17078	17134	17064	16684	16299	16058	15877	16361	16661	16528	16431	16208	16033	15646	15467	15233	14984	
SRev ST-Coal		536	642	872	877	990	981	988	978	981	983	985	986	981	983	981	979	892	379	390	-77	-51	-6	-1	76	58	87	-41	145	102	103	106	130	139	205	167	295	363	441	456	281	277	354	314	330	345	357	364	392	
SRev CCGT-Gas		799	1063	981	911	825	816	836	759	861	829	754	794	697	500	594	584	429	329	291	368	278	525	290	249	421	570	616	511	379	365	437	369	434	412	404	533	388	407	244	266	284	310	366	351	509	708	782	1075	
SRev LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	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	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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		1153	1153	1153	1153	1153	1153	1002	1153	1153	1153	1153	1153	1153	1153	1153	1002	1153	864	864	590	277	151	277	277	814	965	965	965	777	590	590	590	590	439	965	965	1066	1066	778	490	678	678	440	627	1052	1153	1153	1153	
Hydro		67	113	124	133	94	181	284	141	143	122	142	142	102	88	144	240	106	100	176	206	436	480	546	508	495	362	359	332	355	320	318	406	331	539	329	208	239	277	182	352	352	278	586	433	246	103	114	53	
S.Reserve Total		2555	2971	3130	3074	3062	3131	3110	3031	3138	3087	3034	3075	2933	2724	2872	2805	2580	1672	1721	1087	940	1149	1112	1110	1815	1984	1899	1953	1613	1378	1451	1495	1494	1595	1865	2001	2056	2191	1660	1389	1591	1620	1706	1741	2152	2321	2413	2673	