

Daily System Generation Summary on Monday

Monday, July 19, 2021

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,260 MW
Distillate	0 MW
Total TNB	2,260 MW
Total IPP	17,789 MW
Total Co-Gen	0 MW
Total System	23,593 MW

Generation Mix

Type	MWh	Percentage
Hydro	14,417	4.44 %
Gas	63,583	19.56 %
Total TNB	78,000	24.00 %
ST-Coal	199,545	61.39 %
LSS	3,458	1.06 %
Gas	42,532	13.08 %
Total IPP	245,535	75.54 %
Co-Gen	160	0.05 %
Total Co-Gen	160	0.05 %
Total Generation	323,695	99.58 %
PLTG	-657	-0.20 %
EGAT	4	0.00 %
HVDC	-697	-0.21 %
Interconnection	-1,350	-0.42 %
Net Energy	325,045	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:	22:30:00 Hour
Total Set On Bus	16,093 MW
TNB Generation	3,592 MW
IPP Generation	11,188 MW
Spinning Reserve	1,308 MW
Maximum Demand	14,844 MW
Net Energy	325,045 MWH
Load Factor	91.24 %

Fuel Cost

Total Cost:	50,335,798.57 RM
Cost per Unit	15.54 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	337
Hydro	184
Syncon	676
Thermal	422
Total	1,619

Time	Weather	Temperature
Afternoon	Hot	33
Morning	Sunny	27

Gas Usage

Station	(mmscfd)
GLGR	2
SRDG	6
TJGS	192
Total TNB	200
NPRI	151
PLPS	54
Total IPP	205
Total Gas	405
Total Gas Required	405

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	14173	13596	12920	12515	12097	11815	11750	11703	11729	12931	13457	13815	13893	13952	14382	14651	14711	14560	13721	13586	14722	14835	14795	14733

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, August 5, 2021 10:53:34 PM
(Ir. Shanmugam Thoppalan)
Grid System Operator

Daily MW Generation on Monday

		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	U002		696	697	697	696	694	695	697	696	604	504	505	505	503	400	386	354	556	692	696	697	697	698	695	695	696	694	696	695	695	697	698	696	654	552	504	506	511	697	698	697	696	695	695	695	696				
JMHE	U001		924	932	929	850	848	803	780	780	779	781	783	780	781	780	782	780	780	781	780	783	847	849	852	849	851	850	848	849	851	849	850	919	921	922	921	922	917	921	920	919	919	920	920	922	920	921	919	922	
JMHE	U002		924	931	929	850	850	795	780	781	778	779	779	780	781	781	771	782	783	781	781	780	851	848	852	848	849	851	849	850	851	850	849	920	921	923	921	923	918	920	919	919	918	919	924	921	921	919	919	920	
JMJG	U001		675	667	673	672	671	675	668	674	671	672	672	671	673	672	673	654	662	667	676	665	668	675	673	670	672	669	672	674	668	671	673	668	671	672	673	670	670	675	673	673	668	668	672	671	669	671	670		
JMJG	U002		672	673	674	677	671	668	672	674	674	672	671	677	677	668	677	666	666	669	675	671	673	675	672	672	667	672	671	671	676	672	673	673	673	673	672	671	672	673	677	676	668	673	677	671	671				
JMJG	U003		0	0	0	0	0	0	0	0	0	0	31	189	280	318	343	422	495	514	576	658	666	664	668	667	669	667	664	662	673	666	667	593	594	597	600	608	634	666	652	656	658	654	649	680	669	664	668	666	
JMJG	U004		714	710	706	701	705	705	708	717	720	722	723	725	718	731	727	721	727	733	727	725	726	719	740	732	731	732	736	736	732	739	752	735	751	737	738	730	722	764	778	741	741	742	751	736	746	731	721	721	
JMJG	U005		895	887	890	848	852	829	805	801	796	800	799	801	798	800	801	803	799	799	801	799	818	851	854	853	848	849	848	851	849	849	851	894	887	892	884	884	887	887	888	895	892	889	889	890	892	890	892	892	
PKLG	U006		449	448	446	449	446	447	448	448	449	449	446	447	447	450	449	449	449	446	449	449	450	448	449	448	449	449	448	446	448	449	442	432	449	446	447	447	446	446	448	448	448	450	453	452	448	448			
TBIN	U001		689	689	687	689	689	692	690	687	690	626	504	502	431	401	442	393	352	405	557	651	693	690	692	693	690	690	690	691	691	691	690	691	599	549	499	503	500	603	601	689	689	688	690						
TBIN	U003		691	693	694	689	689	694	688	692	602	524	500	449	406	406	396	356	391	560	651	700	692	692	694	694	693	692	693	692	696	692	696	692	617	550	499	505	504	609	606	696	686	697	696	695	692				
TBIN	U004		943	931	934	855	854	853	853	854	854	854	852	854	853	853	853	855	854	853	855	851	852	854	854	855	857	854	854	853	853	852	902	924	923	921	923	921	923	927	922	922	923	922	921	925	925	921			
Total ST-Coal			8272	8258	8259	7983	7971	7855	7793	7801	7799	7561	7292	7429	7394	7363	7284	7305	7278	7596	8127	8383	8639	8662	8695	8683	8677	8676	8670	8674	8670	8681	8693	8824	8853	8873	8856	8649	8438	8378	8389	8359	8748	8746	8931	8931	8949	8927	8913	8909	
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		
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	
GLGR	GT01		0	0	0	0	0	0	0	0	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	39	0	0	0	0	0	0	0	0	0	0	0			
GLGR	GT02		0	0	0	0	0	0	0	0	25	40	40	41	41	41	29	30	29	30	29	0	0	0	0	0	0	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		518	529	523	529	521	530	527	524	514	526	528	524	526	530	532	484	515	514	519	513	513	515	515	513	512	511	516	516	515	514	511	514	519	514	512	502	503	515	516	515	515	514	512	514	518	507	511		
NPRI	BLK2		506	515	511	518	509	518	516	510	503	514	518	512	396	500	498	389	517	518	518	516	517	517	518	518	515	512	513	518	520	518	517	512	518	516	518	515	505	507	518	518	518	518	518	514	515	520	510	512	
PCGP	PGRG		597	613	605	613	489	317	311	308	300	308	320	308	310	313	317	305	312	307	300	302	301	302	302	303	301	300	300	303	455	602	601	595	603	610	601	596	586	588	602	605	601	602	603	599	602	606	594	599	
PLPS	GT11		111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	97	139	138	141	140	140	139	137	137				
PLPS	GT12		115	120	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	139	137	142	142	141	142	141	142	142	142	137	140			
PLPS	GT13		107	107	106	108	126	124	125	125	125	125	125	124	125	124	124	125	126	126	124	125	125	124	124	125	124	125	124	125	124	124	124	125	124	121	124	122	118	122	122	126	126	126	126	125	126	122	127		
PLPS	ST18		198	158	132	57	59	58	57	58	58	57	58	58	58	58	58	58	57	58	58	58	58	58	58	59	59	59	59	59	60	59	59	59	59	60	58	141	140	142	183	210	210	209	210	210	210	209	210		
SPGP	BLK1		725	725	727	724	725	725	728	726	725	726	726	726	727	726	727	726	725	725	725	725	727	727	724	725	725	727	724	726	724	725	725	726	726	726	726	725	728	725	724	726	726	725	727	725	726	726	726		
SPGP	BLK2		726	722	724	724	725	725	726	725	723	726	725	726	726	726	726	726	727	725	725	726	726	724	725	727	726	724	726	725	724	724	725	724	724	726	726	725	725	724	724	725	723	727	725	726	726	725			
TJGS	GT1A		219	225	226	222	224	199	198	164	153	161	161	163	163	160	162	158	162	162	161	200	200	228	225	223	226	226	223	224	221	225	222	222	226	224	226	224	191	193	220	226	224	222	225	223	225	222	222	226	
TJGS	GT1B		209	217	214	219	216	190	191	154	149	153	152	155	157	152	153	147	152	152	152	187	191	220	214	216	214	217	213	213	216	217	216	214	218	218	216	218	179	188	212	216	214	218	215	216	214	215	213	216	
TJGS	ST1C		242	242	242	242	216	216	188	185	188	188	188	188	188	188	188	188	188	188	188	214	217	240	244	244	244	244	244	244	244	244	244	244	244	244	244	242	217	223	245	245	245	245	245	245	245	245			
TJGS	GT2A		169	165	148	148	148	188	165	107	107	107	107	107	107	107	107	107	107	107	106	106	106	106	127	167	167	165	167	215	215	216	216	216	216	216	216	184	148	148	218	216	216	216	227	224	224	219	215	215	
TJGS	GT2B		166	162	143	145	145	183	162	104	104	104	104	104	104	104	104	102	105	102	102	102	104	104	123	163	163	162	162	213	213	211	214	212	212	212	212	182	145	145	146	212	212	212	205	204	204	212	212	212	
TJGS	ST2C		214	220	209	209	209	233	223	191	191	191	191	191	191	191	191	191	191	191	191	191	191	201	221	221	221	221	221	221	254	254	254	254	254	254	254	236	209												

Daily MW Generation on Monday

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																											
KNYR	HY01	98	98	98	98	98	96	79	78	60	62	98	63	87	70	99	60	84	98	98	73	65	97	83	98	80	65	66	98	98	98	98	72	98	98	98	92	62	62	82	98	98	98	95	66	64	98	66	64			
KNYR	HY02	98	98	98	98	98	98	81	85	58	60	99	58	87	69	99	57	79	98	98	75	59	97	86	98	76	98	98	98	98	98	98	98	98	98	98	97	57	57	57	98	98	98	98	98	98	98	98	98			
KNYR	HY03	99	99	99	99	98	56	58	57	55	55	57	54	59	0	0	98	99	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	97	96	55	55	55	98	99	99	99	99	98	99	99	99		
KNYR	HY04	98	99	99	99	98	57	58	-1	-1	-1	-1	-1	-1	-1	-1	-1	101	100	101	100	100	100	100	100	101	100	100	100	100	100	100	100	100	100	100	99	98	56	56	100	100	100	59	59	58	60	59	59			
LPIA	HY01	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	15	15	15	15	17	17	17	17	17	17	17	17	17	17	17	17	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
LPIA	HY02	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	14	15	15	15	15	15	15	15	15	15	15	15			
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	3	3	3	3	3			
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	21	21	21	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1			
PGAU	HY03	20	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PGAU	HY04	0	0	0	0	0	0	0	0	19	18	19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	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	79	34	-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	-1	-1	-1	34	33	33	33	34	34	-1	-1	-1	-1	82	82	82	82	82	82	-1	-1	-1		
TMGR	HY03	80	32	32	32	32	51	50	49	48	50	50	50	51	50	-1	-1	79	79	79	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	32	32	32	32	32	32	32	30	-1	-1	82	82	82	82	82	82	82	-1	-1		
TMGR	HY04	51	78	58	77	42	60	43	41	40	43	55	42	42	42	78	41	41	43	43	41	42	42	41	54	41	41	41	45	66	78	78	41	41	84	45	41	39	39	41	76	58	81	42	42	42	57	41	42			
UJLI	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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1			
UJLI	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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-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	5	5	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	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	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		1062	795	592	611	572	550	502	442	412	420	510	420	453	422	407	289	417	673	652	522	500	570	543	586	533	539	540	577	597	677	677	614	655	700	660	593	556	403	424	769	801	919	743	802	708	773	755	670			
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	0	0	0	0	0	
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	10	15	20	22	21	22	28	26	28	23	28	27	24	15	13	14	17	14	12	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
BKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	15	22	7	21	25	31	26	24	29	24	31	30	16	14	8	8	10	5	4	2	1	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	0	0	3	7	11	16	21	17	22	15	17	25	31	30	32	30	25	30	19	14	15	13	6	4	3	0	0	0	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	9	14	21	26	20	35	20	36	33	45	37	11	29	30	36	20	23	23	18	14	5	1	0	0	0	0	0	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	3	6	11	20	28	36	23	34	37	43	34	33	29	41	28	36	39	19	17	15	9	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	16	19	21	26	26	16	29	25	28	27	25	29	25	8	6	5	10	8	2	0	0	0	0	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	1	5	8	17	19	26	29	23	25	30	29	26	38	26	30	41	35	18	31	21	14	12	7	3	0	0	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	2	14	17	24	28	33	39	39	30	48	45	50	46	12	19	39	11	11	9	9	9	5	3	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	0	4	9	15	20	25	24	20	18	22	35	44	42	28	41	26	42	30	26	9	16	9	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	13	11	13	15	19	19	23	24	29	30	29	25	30	26	24	26	14	12	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	10	13	15	22	31	35	35	33	43	44	31	28	31	34	33	26	14	12	7	4	1	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	0	1	4	6	11	21	24	40	46	47	52	52	52	52	52	50	47	42	30	22	18	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	8	12	15	15	26	27	28	29	30	37	36	37	28	22	28	27	17	17	11	10	8	2	0	0	0	0	0	0	0	0	0	0	0	0	
STLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	7	8	11	14	16	26	29	26	25	29	26	15	24	25	21	4	13	6	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
TBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	8	9	17	24	30	24	22	12	20	24	13	16	21	16	15	1	1	1	2	2	1	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	6	41	104	168	243	310	350	399	403	437	471	508	525	439	430	430	450	344	256	205	179	123	72	27	1	0	0	0	0	0	0	0	0	0	0	0	
PCUF	CUFG	3	4	4	3	4	4	3	3	3	2	3	4	3	4	5																																				

Daily MW Generation on Monday

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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0