

Daily System Generation Summary on Tuesday

Tuesday, December 31, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,467 MW
Distillate	0 MW
Total TNB	2,467 MW
Total IPP	17,915 MW
Total Co-Gen	0 MW
Total System	23,325 MW

Generation Mix

Type	MWh	Percentage
Hydro	11,165	3.18 %
Gas	33,062	9.43 %
Total TNB	44,227	12.61 %
ST-Coal	240,034	68.43 %
LSS	2,426	0.69 %
Gas	64,814	18.48 %
Total IPP	307,274	87.60 %
Co-Gen	155	0.04 %
Total Co-Gen	155	0.04 %
Total Generation	351,656	100.25 %
PLTG	140	0.04 %
HVDC	729	0.21 %
Interconnection	869	0.25 %
Net Energy	350,787	100.00 %

Maximum Demand Record

Date: 4/18/2019	18,566 MW
Date: 4/18/2019	391,845 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:00:00 Hour
Total Set On Bus	18,203 MW
TNB Generation	2,637 MW
IPP Generation	14,017 MW
Spinning Reserve	1,541 MW
Maximum Demand	16,623 MW
Net Energy	350,787 MWH
Load Factor	87.93 %

Fuel Cost

Total Cost:	55,951,285.29 RM
Cost per Unit	15.90 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	504
Hydro	237
Syncon	980
Thermal	236
Total	1,957

Time	Weather	Temperature
Afternoon	Hot	34
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	47
TJGS	191
Total TNB	238
CBPS	50
NPRI	140
PGLA	49
PLPS	55
SKSP	44
YPKA	15
Total IPP	353
Total Gas	590

Total Gas Required 590

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	14514	13767	13181	12801	12497	12264	12353	12512	12809	14498	15429	15953	15924	15715	16210	16590	16623	16220	15100	14921	15870	15542	15002	14523

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Sunday, January 05, 2020 10:48:13 AM
(Ir. Shanmugam Thoppalan)
Pengurus Besar Kanan
Jabatan Sistem Operasi

Daily MW Generation on Tuesday

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	694	690	696	693	692	692	693	693	693	693	693	687	694	691	693	691	693	690	687	699	689	689	686	689	688	688	689	688	688	687	688	688	692	690	693	693	694	694	695	691	691	693							
JMAH	U002	698	692	694	694	694	693	693	695	688	694	694	695	692	694	695	694	695	694	697	694	695	694	694	700	691	692	696	698	694	693	695	693	694	694	694	695	693	693	695	693	693	695	696						
JMHE	U001	982	774	782	779	779	781	781	780	780	779	782	779	781	780	780	778	781	777	781	983	980	980	980	981	980	976	984	975	983	983	980	982	979	979	978	979	980	978	981	979	979	981	978	979	977	980	974	912	
JMHE	U002	981	777	782	780	779	782	781	782	780	779	781	779	780	780	780	780	782	780	781	780	780	850	979	980	980	975	983	976	980	981	978	981	980	979	978	979	979	980	981	978	981	980	978	979	976	980	973	911	
JMJG	U001	673	684	672	673	675	677	689	677	670	679	673	672	677	682	678	683	673	678	675	672	673	679	675	675	667	678	670	670	673	673	671	671	665	672	671	673	667	670	673	675	672	675	671	673	683	668	672	672	
JMJG	U003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	126	309	307	362	439	495	495	495	493	544	579	623	636	639	641	641	644	651	651	661	662	677	681	669	661	679	661	666	675	675	672	672		
JMJG	U004	981	920	835	782	781	782	781	785	782	782	783	782	785	782	783	782	782	782	849	980	980	978	978	978	979	978	977	977	978	977	978	978	977	978	978	977	978	978	977	978	977	978	979	980	927	917			
JMJG	U005	978	852	783	785	782	781	785	781	785	783	782	783	786	785	782	778	780	782	796	938	977	974	975	975	972	972	972	973	975	974	973	974	976	978	976	977	976	978	977	974	978	973	975	975	977	911	910		
PKLG	U003	285	285	284	284	282	281	280	281	180	148	153	154	189	284	281	282	285	279	280	283	283	283	279	281	283	281	284	282	282	280	280	279	283	281	279	281	279	282	281	282	280	281	284	284	282	286	280		
PKLG	U004	283	278	280	280	280	278	278	281	179	156	149	164	185	253	278	280	276	281	279	281	280	279	278	279	279	280	280	281	279	276	281	279	279	276	281	280	279	278	276	287	278	283	282	282	283	281	281	282	
PKLG	U005	466	467	467	467	467	467	466	385	308	269	269	269	269	271	324	395	424	467	467	466	466	468	466	467	468	466	468	467	467	466	466	466	467	468	469	466	461	466	467	470	468	465	467	466	467	468	467	468	
TBIN	U001	691	690	684	689	685	690	691	691	690	689	689	690	691	690	689	690	689	690	681	687	689	691	690	689	691	688	689	689	691	690	689	690	690	689	689	690	690	689	689	691	690	689	690	689	689	693	687		
TBIN	U002	691	693	690	694	692	687	692	693	691	695	692	691	686	694	691	690	691	691	696	693	691	691	691	692	691	693	693	690	690	693	691	690	690	692	694	691	691	691	693	691	692	693	694	691	691	691	689	692	
TBIN	U003	692	689	688	694	690	689	690	690	692	690	691	690	690	690	689	691	691	691	692	690	687	687	690	690	691	692	690	690	692	689	691	690	690	690	690	690	692	691	691	689	690	691	690	691	689	690	691	695	
TBIN	U004	981	923	835	783	783	781	783	783	784	783	783	783	783	783	783	783	783	783	783	782	808	900	982	982	982	984	983	983	982	982	981	983	981	983	981	982	982	984	981	984	984	984	984	984	985	927	913		
Total ST-Coal		10076	9414	9172	9077	9061	9083	8997	8703	8619	8614	8624	8686	8861	8928	9020	9149	9371	9481	10101	10295	10422	10548	10550	10539	10599	10634	10664	10682	10686	10685	10689	10684	10693	10703	10707	10701	10716	10738	10732	10716	10740	10714	10722	10740	10730	10549	10400		
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			
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			
CBPS	BLK2	357	357	361	361	226	218	225	225	225	218	225	221	222	222	224	217	224	362	362	348	362	362	361	361	355	362	357	362	358	358	358	358	360	361	361	361	361	359	354	362	361	362	347	354	354	354	221	221	307
GLGR	GT01	74	73	73	73	72	74	74	73	73	73	74	74	75	73	74	73	75	75	76	86	80	72	73	73	73	72	72	70	71	102	99	101	101	101	100	92	70	72	72	97	101	100	101	70	72	73	72	74	
GLGR	GT02	74	74	74	74	73	74	74	74	74	74	74	74	75	75	74	74	74	86	80	73	73	73	73	73	72	72	72	104	100	99	100	99	100	99	100	92	72	73	73	99	100	99	70	73	73	74	74		
GLGR	ST1C	61	61	60	61	61	60	60	60	60	60	60	60	61	59	60	60	60	60	82	73	59	60	60	60	61	61	62	62	80	91	90	91	90	90	90	89	63	62	62	74	90	89	90	66	61	61	61		
NPRI	BLK1	500	505	505	502	356	326	355	348	363	424	368	329	405	421	329	328	343	515	510	494	509	510	510	510	505	508	505	505	509	509	510	511	506	508	506	503	500	509	511	505	493	506	503	496	398	482	427		
NPRI	BLK2	504	506	507	504	507	392	319	318	319	314	319	316	319	319	319	307	320	514	512	498	513	513	512	513	506	511	507	507	513	512	511	512	511	508	509	509	505	503	512	512	508	494	508	507	500	448	446	505	
PCGP	PGRG	593	603	599	594	602	590	603	602	602	592	603	596	602	599	604	575	603	602	602	575	601	601	603	602	590	600	593	591	605	603	602	605	603	596	596	596	589	581	601	602	592	566	595	591	581	600	599	597	
PGLA	GT11	159	161	161	162	162	159	161	161	162	160	162	161	161	160	161	155	160	179	234	152	160	152	164	164	154	158	155	153	157	156	221	220	221	221	221	224	157	155	160	214	226	214	150	159	155	160	179	152	
PGLA	ST10	91	91	92	92	91	91	90	90	91	91	91	91	91	91	91	90	93	112	89	90	96	94	96	91	91	91	94	94	96	116	116	115	115	115	115	92	90	92	115	115	111	101	89	91	92	94	96		
PLPS	GT11	58	62	62	62	62	59	61	62	63	58	61	62	62	62	62	62	62	57	61	62	117	112	111	111	108	112	108	112	112	132	132	131	118	111	111	111	94	58	62	111	111	106	127	129	128	129	129	128	
PLPS	GT12	61	64	64	65	64	61	64	65	64	60	64	65	65	65	61	64	65	119	114	120	119	120	119	117	120	116	120	119	142	130	125	119	124	119	63	61	65	119	120	114	0	0	0	0	0	0	0		
PLPS	ST18	89	89	90	90	90	85	89	90	90	90	90	90	90	90	90	85	88	90	132	128	132	132	133	133	133	133	133	131	133	133	141	142	140	137	135	135	133	114	90	92	134	133	130	58	60	59	58	59	59
SKSP	BLK1	216	216	221	218	218	222	219	219	218	218	219	218	217	217	221	220	219	235	276	220	226	219	279	277	260	225	218	221	226	283	252	261	226	281	302	217	217	218	220	313	283	279	218						

Daily MW Generation on Tuesday

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	105	105	105	105	105	61	61	61	61	61	61	61	60	61	60	61	61	61	61	61	61	101	100	101	101	101	101	0																										
KNYR	HY02	103	103	103	103	103	0	0	0	0	0	0	0	0	0	99	103	103	103	103	103	103	103	103	103	103	103	103	101																										
KNYR	HY03	100	100	100	100	100	0	0	0	0	0	0	0	0	0	101	103	103	105	104	105	104	105	105	104	104	105	105	100																										
KNYR	HY04	105	105	105	105	105	-1	-1	-1	-1	-1	-1	-1	-1	-1	102	105	105	105	105	105	105	105	105	105	105	105	105	106																										
LPIA	HY01	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10																										
LPIA	HY02	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	10	10	10	10	10	10	15	15																										
MNOR	HY01	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	7	7	7	7	7	7	4	4																										
PGAU	HY01	-1	-1	-1	-1	-1	-1	22	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1																										
PGAU	HY02	-1	-1	-1	22	-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	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	21	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1																										
SIHY	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	51	31	30	0	0	0	0																										
SIHY	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	30	30	0	0	0	0																										
SYPS	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17	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	17	17	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	16	16	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	17	17	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	-1	-1	-1	-1	-1	-1	-1	-1																										
TMGR	HY02	33	34	34	33	33	33	34	34	33	34	33	34	33	31	34	33	33	30	33	33	33	33	33	33	33	33	33	33																										
TMGR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	31	31	31	31	31	31	31	31																										
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	97	93	-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																										
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	4	4	4	4																										
UPIA	HY02	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																										
Total Hydro		524	525	525	547	526	524	172	195	172	171	172	193	171	173	170	168	171	173	173	514	548	529	530	623	648	625	626	670	742	829	862	863	956	919	581	292	168	166	192	474	581	551	605	544	513	534	517	319						
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	2	5	9	13	16	19	21	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	4	12	16	15	28	33	37	39	44	46	46	41	45	17	43	34	28	34	20	14	11	5	1	1	1	1	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	5	12	14	24	25	36	46	36	14	25	46	46	14	25	14	23	14	14	3	1	1	1	1	0	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	2	10	18	25	30	35	39	44	37	24	29	34	50	27	30	12	27	13	24	14	13	5	0	0	0	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	8	21	24	32	33	41	43	50	5	31	46	25	36	39	42	34	18	13	17	7	3	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	0	3	9	16	23	29	33	38	41	43	45	46	45	46	43	39	39	40	38	13	15	3	1	0	0	0	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	1	5	14	22	24	25	38	39	50	50	31	29	37	36	39	43	16	22	37	15	22	5	1	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	0	6	14	22	29	35	40	49	48	30	39	57	25	57	57	13	52	24	17	32	22	10	5	1	0	0	0	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	4	9	15	22	28	33	37	40	41	43	43	39	33	31	32	35	21	19	5	8	1	0	0	0	0	0	0	0	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	1	33	93	153	199	247	289	337	374	331	247	306	317	344	266	263	241	234	192	159	123	71	24	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
PCUF	CUFG	2	3	3	3	2	2	3	3	2	1	4	2	2	2	1	2	3	2	3	3	3	4	2	3	2	2	3	2	4	3	2	0	4	3	2	3	3	2	3	3	3	2	2	3	3	2	2	4	4	5				
PCUF	CUFK	6	4	4	3	4	4	5	4	5	6	3	3	4	2	2	4	5	3	5	3	5	4	5	3	4	3	3	3	4	2	3	5	4	5	4	3	5	3	4	4	3	4	5	4	5	4	4	5	4	5	4	5		
Total Co-Gen		8	7	7	6	6	6	8	7	7	7	5	6	4	3	6	8	5	8	6	8	8	7	6	6	5	6	5	8	5	5	5	5	8	8	6	6	8	5	7	7	6	6	7	7	8	6	6	9	9	9	9			
Total Gen		14522	14032	13798	13558	13276	13061	12817	12680	12488	12365	12257	12236	12363	12544	12529	12545	12797	13826	14474	15015	15401	15713	15963	16076	15898	15688	15721	16029	16239	16528	16631	16639	16662	16619	16275	15713	15137	14786	14957	15804	15892	15754	15578	15360	15051	14826	14566	14283	14283	14283	14283			
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	0	0	0			
TIE-HVDC		30	30	30	30	31	31	31	31	29	29	30	30	30	30	30	30	30	30	30	30	30	31	31	30	30	30	31	31	31	31	30	30	30	30	30	29	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31			
TIE-PLTG		-11	-10	13	66	76	16	-3	-20	-26	-15	-25	6	-8	7	-1	18	-31	-14	-42	-11	-46	-29	-9	7	-45	-46	-13	46	10	22	23	34	21	-11	37	18	19	8	18	6	5	85	17	64	31	3	24	-4	-4					
Interconnection		20	20	43	97	107	46	28	11	3	15	5	36	22	38	29	48	0	17	-12	19	-16	1	22	38	-14	-15	18	77	41	53	53	64	51	19	67	49	49	39	48	36	34	114	48	95	61	34	55	27	27	27				
System Total		14514	14024	13767	13473	13181	13027	12801	12681	12497	12362	12264	12212	12353	12518																																								

Daily MW Generation on Tuesday

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