

Daily System Generation Summary on Sunday

Sunday, March 17, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,390 MW
Distillate	0 MW
Total TNB	2,390 MW
Total IPP	15,889 MW
Total Co-Gen	80 MW
Total System	20,861 MW

Generation Mix

Type	MWh	Percentage
Hydro	8,076	2.38 %
Gas	43,151	12.72 %
Total TNB	51,227	15.10 %
ST-Coal	177,221	52.24 %
ST-Gas	521	0.15 %
LSS	1,511	0.45 %
Gas	107,060	31.56 %
Total IPP	286,313	84.40 %
Co-Gen	1,934	0.57 %
Total Co-Gen	1,934	0.57 %
Total Generation	339,474	100.07 %
PLTG	-494	-0.15 %
HVDC	720	0.21 %
Interconnection	226	0.07 %
Net Energy	339,248	100.00 %

Maximum Demand Record

Date: 3/19/2019	18,402 MW
Date: 3/20/2019	390,048 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	21:30:00 Hour
Total Set On Bus	17,619 MW
TNB Generation	2,872 MW
IPP Generation	13,196 MW
Spinning Reserve	1,472 MW
Maximum Demand	16,166 MW
Net Energy	339,248 MWH
Load Factor	87.44 %

Fuel Cost

Total Cost:	70,036,644.22 RM
Cost per Unit	21.13 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	509
Hydro	250
Syncon	765
Thermal	233
Total	1,757

Time	Weather	Temperature
Afternoon	Hot	35
Morning	Sunny	28

Gas Usage

Station	(mmcsfd)
GLGR	51
PAKA	9
PGPS	30
SRDG	10
TJGS	216
Total TNB	315

CBPS	55
KLPP	95
MPSS	38
NPRI	155
PGLA	111
PLPS	89
PTEK	5
SGRI	54
YPKA	74
PKLG	5

Total IPP	681
Total Gas	996

Total Gas Required	996
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Alternate Fuel Usage

Station	(mmcsfd)
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	15478	14833	14321	13842	13484	13219	13006	12610	11826	12380	13066	13591	13647	13736	14127	14478	14671	14477	14157	14294	15766	16156	16075	15907

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Wednesday, March 27, 2019 11:08:57 AM

(Ir. Shanmugam Thoppalan)
Pengurus Besar Kanan
Jabatan Sistem Operasi

Daily MW Generation on Sunday

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	701	705	702	703	702	700	702	702	692	703	703	703	702	700	703	700	705	701	703	701	705	702	702	705	701	707	702	702	702	703	701	701	702	703	705	702	702	703	703	705	702	704	701	701	703	703				
JMAH	U002	703	706	701	705	705	701	706	702	705	703	711	703	705	703	703	707	703	704	705	700	706	703	706	706	707	703	705	704	705	703	705	704	703	705	705	702	706	704	703	706	703	705	698	703	703	706	705	705		
JMUG	U002	679	683	681	683	679	686	677	681	683	679	689	682	679	698	679	679	684	678	685	682	675	660	677	682	678	682	687	675	683	682	682	681	684	680	678	677	678	679	678	682	689	679	688	683	679	679	682	682		
JMUG	U003	675	672	666	675	685	676	675	674	672	676	677	675	676	677	678	673	675	675	678	677	676	675	677	673	675	676	674	677	672	677	673	676	675	676	677	676	677	682	673	678	674	672	676	677	675	671	677			
JMUG	U004	977	977	975	920	876	876	876	876	834	783	785	783	782	782	785	785	786	783	782	794	782	794	882	899	900	905	903	903	904	902	904	904	909	928	932	933	932	930	932	933	980	978	979	979	980	981	981	980	981	
JMUG	U005	979	979	981	892	808	810	811	777	781	781	781	780	782	781	785	779	777	780	778	782	779	782	903	900	901	900	900	895	899	900	899	914	928	928	931	931	931	931	928	932	982	978	982	981	983	980	977	981	977	
PKLG	U003	284	284	281	281	281	284	282	281	282	281	282	283	283	283	285	283	284	284	282	282	283	283	282	281	279	279	280	280	282	281	281	281	282	282	282	282	284	283	281	282	281	279	282	282	283	283	284			
PKLG	U004	280	279	281	280	283	281	280	277	278	281	281	281	283	281	280	281	280	279	279	283	281	280	280	281	280	277	278	277	280	280	280	280	280	280	281	283	279	279	280	279	280	277	279	280	282	281	280	282		
TBIN	U001	700	700	698	699	701	700	700	699	700	698	701	701	700	699	697	701	696	697	701	703	700	702	699	697	701	699	700	696	699	701	701	700	699	698	701	696	701	701	699	697	700	699	701	701	699	699	699			
TBIN	U002	701	702	702	703	700	701	699	701	699	701	699	702	699	705	700	705	701	700	703	701	702	702	700	702	701	701	701	700	703	701	699	703	699	701	702	703	700	703	700	703	702	700	702	699	703	698	703	699		
TBIN	U004	952	952	952	895	853	851	852	808	802	804	802	804	802	802	803	802	803	802	803	802	802	803	874	902	901	902	904	903	901	904	902	910	931	931	932	933	932	934	950	951	953	951	953	952	953	953				
Total ST-Coal		7631	7639	7620	7436	7273	7266	7260	7136	7079	7090	7112	7093	7099	7109	7103	7091	7093	7087	7097	7096	7104	7241	7434	7431	7432	7437	7430	7414	7425	7428	7431	7460	7506	7515	7514	7523	7518	7520	7532	7645	7631	7644	7625	7640	7641	7632	7640	7642		
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	0	0
PKLG	U001	149	145	146	146	146	145	132	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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		149	145	146	146	146	145	132	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	355	361	361	360	362	364	361	364	362	360	368	357	359	368	362	347	272	311	359	361	361	360	355	351	357	364	359	355	361	360	357	362	362	354	361	362	357	360	366	362	359	361	362	361	361	361	362			
GLGR	GT01	100	106	102	105	104	104	101	93	96	69	68	69	68	68	68	69	68	68	69	69	67	69	85	68	66	67	69	67	67	78	98	99	96	97	99	67	66	68	68	101	98	100	101	100	101	100	100			
GLGR	GT02	101	107	104	106	105	105	100	92	97	67	68	68	69	68	68	68	68	69	68	68	68	68	84	67	68	68	67	67	78	98	98	97	97	99	67	68	67	67	102	100	101	101	101	100	101	101	100			
GLGR	ST1C	89	90	90	93	93	94	92	86	86	76	70	70	70	70	71	70	70	70	70	70	70	84	71	71	71	71	71	71	73	90	89	86	86	90	71	71	72	71	88	90	90	90	90	89	90	90	90			
KLPP	GT13	130	137	127	144	141	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	141	131	133	146	134	138	123	136	138	115	132	147	141	143	146	143	145	142	138	147				
KLPP	GT14	139	148	138	154	154	149	151	145	150	144	152	150	151	154	137	75	76	77	76	77	111	116	130	113	113	113	116	113	141	143	152	145	151	137	146	149	127	142	154	153	152	154	154	153	149	153				
KLPP	GT15	138	146	133	152	150	142	139	138	144	133	141	140	143	143	131	73	69	71	71	72	114	118	123	114	117	117	114	120	122	141	142	147	141	150	138	145	147	126	140	150	147	150	151	148	149	145	150			
KLPP	ST17	196	196	193	200	197	196	152	132	132	123	129	127	129	131	123	93	84	84	84	84	113	120	117	115	115	115	108	186	194	198	198	198	194	190	194	198	190	190	198	199	199	199	199	199	199	199	199			
MPSS	GT01	109	109	109	99	97	98	97	96	100	98	99	96	98	100	97	95	97	97	96	95	96	98	98	96	97	100	99	98	99	99	99	109	109	110	110	106	98	89	106	104	105	105	106	107	108	109	109			
MPSS	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	23	52	87	107	106	106	106	106	107	108	109	105				
MPSS	ST01	51	51	51	44	43	44	41	43	42	41	43	40	43	45	42	39	42	42	41	43	42	45	46	45	46	46	47	48	47	48	49	49	54	54	54	54	51	49	52	113	113	113	114	114	114	114	113			
NPRI	BLK1	500	506	504	508	503	503	506	506	510	504	514	505	504	513	504	498	503	505	504	502	505	506	499	501	491	496	505	505	497	504	505	507	505	505	505	497	502	500	499	506	514	503	505	508	505	500	505	504		
NPRI	BLK2	503	509	506	508	505	506	506	506	508	508	515	508	508	514	503	500	330	507	493	517	506	508	501	502	489	498	506	507	499	505	505	509	508	505	496	504	500	508	512	502	508	509	505	507	503	506	506			
PAKA	GT4A	95	85	85	85	85	85	84	85	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
PAKA	GT4B	85	75	75	75	75	75	75	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PAKA	ST4C	90	85	80	79	79	79	79	70	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PCGP	PGRG	593	603	600	604	606	601	603	603	609	601	618	606	603	619	604	587	596	602	599	596	600	602	588	588	570	585	604	600	588	603	600	606	599	602	580	596	588	588	607	628	598	600	612	602	602	592	602	600		
PGLA	GT11	233	214	215	217	215	216	212	206	218	217	216																																							

Daily MW Generation on Sunday

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		
TJGS	GT1B	220	220	220	223	220	218	211	211	216	210	214	211	198	215	156	132	138	150	171	213	207	207	206	203	204	178	200	205	198	208	200	211	202	209	202	206	210	187	208	211	205	206	206	207	208	211	205	204	
TJGS	ST1C	257	257	257	257	257	254	239	230	239	231	240	240	237	241	210	182	181	178	204	232	240	240	236	237	234	226	235	239	240	240	246	246	243	243	236	240	244	227	242	241	245	242	242	242	245	242	242	238	
TJGS	GT2A	203	200	200	200	203	205	207	207	206	207	207	205	208	206	215	175	147	184	182	214	212	212	212	212	212	212	212	210	173	188	203	198	201	203	203	201	201	201	201	201	202	203	203	201	201	201			
TJGS	GT2B	220	217	218	218	217	216	216	217	217	217	215	215	219	217	210	173	142	180	180	213	210	210	210	210	210	210	208	209	208	214	189	209	218	218	219	219	219	219	219	219	221	219	219	221	219	218			
TJGS	ST2C	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	237	212	237	237	259	259	261	261	261	261	261	261	261	261	236	246	258	260	260	260	260	260	260	260	260	260	260	260	258	258				
YPKA	GT11	136	134	137	136	137	137	137	137	137	135	138	67	66	67	65	64	64	64	64	65	65	64	129	129	128	126	127	130	129	128	128	128	128	128	128	128	128	130	130	101	66	65	66	112	129	129	129	128	131
YPKA	GT12	134	134	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	70	127	127	128	130	130	101	66	65	109	131	131	131	129	129	128	129	129		
YPKA	ST10	125	125	76	57	57	58	57	57	57	58	33	33	33	32	32	31	31	32	32	32	32	55	55	55	55	55	56	56	54	57	122	122	124	124	123	123	102	91	78	102	122	122	123	122	122	123	123	123	
YPKA	GT21	137	138	136	137	138	137	138	137	138	136	93	65	66	68	66	66	65	66	66	65	66	125	123	124	122	123	125	125	124	125	124	127	125	125	123	66	67	67	68	74	123	122	125	123	124	122	123	123	
YPKA	ST20	65	66	65	66	66	65	65	65	65	65	49	38	37	39	37	38	38	38	38	38	39	62	61	62	61	61	62	62	62	62	62	62	62	62	63	61	41	41	40	40	41	61	61	62	61	61	61	61	
Total CCGT-Gas		7397	7097	6799	6640	6601	6383	6156	6072	6045	5822	5727	5591	5568	5540	5192	4806	4472	4827	4927	5252	5515	5722	5729	5631	5542	5477	5580	5791	6038	6322	6420	6591	6525	6584	6376	6352	6333	6202	6484	7306	7309	7298	7394	7372	7337	7320	7250	7255	
PTEK	GT2A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SRDG	GT04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SRDG	GT05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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 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	
BSIA	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BSIA	HY02	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11		
BSIA	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CEND	HY01	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	7	10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
CEND	HY02	10	10	10	9	10	10	10	10	10	9	9	9	9	9	10	9	9	9	7	10	10	9	10	9	10	10	9	9	9	9	9	10	9	10	10	9	10	10	10	10	10	10	9	10	9	10	9	10	
CEND	HY03	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7	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	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	7	7	7	7	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1			
KNRG	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
KNRG	HY02	23	23	22	24	23	23	23	23	23	23	24	23	23	24	23	23	23	23	23	23	23	23	23	23	23	22	22	23	23	23	23	23	24	23	23	22	23	23	22	24	24	35	36	35	35	35	35	29	
KNRG	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
KNYR	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	97	96	96	97	99	98	98	98	99	99	99	95	96	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
KNYR	HY02	60	69	61	88	63	72	72	61	100	78	101	60	62	101	60	56	56	60	59	59	60	59	58	58	97	97	98	99	99	99	99	96	97	60	58	61	63	63	101	62	63	61	61	60	60	18			
KNYR	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	99	99	98	99	100	100	100	100	100	98	0	0	0	0	0	0	0	0	0	0	0	0	17		
LPJA	HY02	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
MNOR	HY01	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	22	21	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	22	22	21	-1	-1	-1	-1	-1	-1	21	21	20	21	22	22		
PGAU	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				
PGAU	HY04	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SIHY	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												

Daily MW Generation on Sunday

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