

Daily System Generation Summary on Sunday

Sunday, October 27, 2019

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,367 MW
Distillate	0 MW
Total TNB	2,367 MW
Total IPP	14,469 MW
Total Co-Gen	65 MW
Total System	19,379 MW

Generation Mix

Type	MWh	Percentage
Hydro	10,735	3.61 %
Gas	25,362	8.54 %
Total TNB	36,097	12.15 %
ST-Coal	180,853	60.88 %
LSS	1,947	0.66 %
Gas	77,516	26.09 %
Total IPP	260,316	87.62 %
Co-Gen	250	0.08 %
Total Co-Gen	250	0.08 %
Total Generation	296,663	99.86 %
PLTG	-1,146	-0.39 %
HVDC	728	0.25 %
Interconnection	-418	-0.14 %
Net Energy	297,081	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:	19:30:00 Hour
Total Set On Bus	16,143 MW
TNB Generation	1,530 MW
IPP Generation	12,253 MW
Spinning Reserve	2,351 MW
Maximum Demand	13,848 MW
Net Energy	297,081 MWH
Load Factor	89.39 %

Fuel Cost

Total Cost:	52,029,518.99 RM
Cost per Unit	17.53 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	547
Hydro	365
Syncon	1,201
Thermal	378
Total	2,491

Time Weather Temperature

Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
PGPS	22
TJGS	157
Total TNB	179
CBPS	54
KLPP	80
MPSS	28
PGLA	103
PLPS	80
SGB3	36
SKSP	49
YPKA	53
Total IPP	482
Total Gas	661
Total Gas Required	661

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	13276	12847	12308	11954	11653	11614	11454	11262	10853	11299	11777	12106	12283	12428	12580	12617	12647	12429	12372	13282	13802	13628	13311	13083

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Wednesday, November 06, 2019
8:52:54 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	690	700	692	691	694	690	691	695	691	689	692	692	693	693	691	692	692	690	696	693	692	692	693	693
JMAH	U002	695	692	698	694	694	694	695	694	692	695	694	694	693	695	694	692	694	692	694	692	695	693	696	694
JMHE	U001	959	956	962	959	773	775	780	780	777	782	781	782	774	782	778	777	781	782	781	780	781	779	783	780
JMJG	U001	575	576	579	575	579	578	576	575	577	577	578	579	579	576	577	579	582	576	579	577	576	579	576	578
JMJG	U003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JMJG	U004	783	786	785	787	785	783	782	782	782	783	785	783	785	783	785	782	783	782	782	779	782	783	783	782
JMJG	U005	779	775	780	779	779	778	780	782	780	780	783	779	782	781	781	782	780	780	774	779	777	780	781	782
PKLG	U003	280	283	282	284	283	284	280	281	280	284	286	284	279	286	283	283	283	283	281	282	283	282	286	286
PKLG	U005	469	467	470	470	468	467	467	467	466	468	464	467	469	468	467	466	467	470	470	466	467	470	470	466
TBIN	U002	691	690	693	693	690	692	696	687	692	691	694	691	691	690	687	693	695	693	694	692	693	687	691	693
TBIN	U003	691	690	692	693	694	690	691	691	691	694	693	691	690	692	691	695	691	692	692	693	692	691	693	692
TBIN	U004	961	962	963	962	908	819	782	781	784	783	783	781	782	785	783	783	783	780	782	781	781	781	781	782
Total ST-Coal		7573	7577	7596	7587	7347	7250	7220	7215	7213	7223	7235	7222	7212	7233	7218	7226	7232	7216	7219	7216	7227	7223	7232	7235
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
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
CBPS	BLK2	361	356	362	366	360	362	360	363	357	367	364	367	366	365	363	217	221	365	364	363	356	363	363	362
KLPP	GT13	116	124	115	113	112	113	108	108	105	70	71	71	70	71	72	66	71	71	71	102	102	105	106	134
KLPP	GT14	130	136	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KLPP	GT15	129	141	132	132	133	133	133	119	120	95	81	81	82	82	84	81	82	83	84	116	117	121	153	153
KLPP	ST17	194	198	194	141	126	126	126	120	119	108	88	88	89	89	89	89	85	101	121	118	123	135	132	132
MPSS	GT02	91	89	89	105	103	90	87	87	86	89	90	88	89	91	89	88	90	89	90	90	88	88	90	87
MPSS	ST01	41	38	38	48	45	37	37	36	36	36	37	37	37	37	37	37	38	39	37	38	38	37	39	39
PCGP	PGRG	588	576	596	591	591	598	591	593	574	597	603	605	595	599	595	590	601	598	602	587	601	605	602	592
PGLA	GT11	196	194	163	161	166	181	162	175	158	168	173	170	175	165	163	160	167	179	183	211	160	209	175	167
PGLA	GT12	210	205	175	173	177	193	173	187	170	180	186	182	188	178	175	172	180	191	197	225	173	222	186	179
PGLA	ST10	214	226	206	203	206	207	205	212	207	205	203	203	207	203	203	206	205	218	214	237	204	235	222	217
PGPS	GT3B	71	71	94	95	94	95	94	71	71	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71
PGPS	ST3C	31	31	37	44	44	44	44	31	31	31	30	30	30	30	30	30	30	31	31	31	31	32	32	32
PLPS	GT11	116	109	136	139	138	140	137	111	110	115	116	115	114	115	65	67	70	69	71	115	113	115	115	133
PLPS	GT12	119	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLPS	GT13	111	108	133	136	133	136	134	110	109	113	113	112	111	112	113	64	69	68	69	112	109	112	112	130
PLPS	ST18	206	197	142	145	144	145	143	133	133	133	133	133	133	132	124	95	96	96	96	133	133	135	133	142
SGB3	GT31	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SGB3	GT32	113	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SGB3	GT33	105	105	144	144	143	143	144	144	106	106	105	108	107	107	102	107	107	110	111	107	110	110	112	112
SGB3	ST34	176	97	76	72	72	72	72	72	64	62	62	62	62	63	63	62	62	63	63	62	62	65	65	65
SKSP	BLK1	228	216	220	219	250	251	218	243	219	217	237	219	242	225	222	217	255	259	273	295	219	313	259	261
TJGS	GT1A	224	215	223	194	217	217	190	219	184	192	170	146	205	210	172	202	123	123	123	122	124	122	185	228
TJGS	GT1B	221	210	219	187	224	217	187	220	180	188	159	141	201	211	170	199	120	121	116	119	118	116	181	214
TJGS	ST1C	242	242	242	227	231	222	227	220	216	204	195	182	205	240	210	218	164	164	164	164	192	242	243	244
TJGS	GT2B	216	216	216	216	219	219	219	219	219	219	219	219	219	219	189	145	145	145	221	221	221	218	167	219
TJGS	ST2C	120	120	120	120	120	120	120	120	120	120	120	120	120	120	91	91	91	121	121	121	121	107	123	123
YPKA	GT11	111	111	92	98	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YPKA	GT12	140	140	137	125	125	125	125	69	66	67	66	67	67	66	67	66	66	66	67	130	130	87	66	65
YPKA	ST10	118	118	116	109	54	54	54	37	31	30	30	30	30	30	31	31	31	31	30	31	56	56	47	31
YPKA	GT21	119	116	103	86	85	87	86	66	66	66	65	65	66	66	65	66	66	66	66	125	126	114	65	65
YPKA	ST20	54	53	52	43	42	42	42	37	36	36	36	36	36	36	36	36	36	36	37	56	57	55	37	36

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 CCGT-Gas		5134	4882	4683	4432	4427	4377	4218	4123	3939	3886	3823	3745	3918	3932	3724	3470	3344	3524	3654	3933	3904	4155	4061	4244	4232	4384	4569	4402	4406	4412	4473	4418	4324	4255	4222	4159	4221	4408	4765	5141	5055	4942	4915	4900	4609	4490	4407	4134	
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		
BSIA	HY03	12	12	12	12	12	12	12	12	12	12	12	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
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	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	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	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	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	-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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
KNRG	HY02	39	38	38	39	39	39	39	39	38	39	39	39	39	38	39	39	38	39	39	39	39	39	38	39	39	38	39	39	38	39	39	38	39	39	38	39	39	39	39	39	39	39	39	39	39	39	39	39	
KNYR	HY02	98	98	98	98	98	98	98	98	98	98	98	98	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	96	95	95	95	95	94	60	61	61	83	87	85	74	73	74	-1	55	58	58	60	60	58	58	58	58	58	
KNYR	HY03	99	98	97	97	98	98	98	98	98	98	98	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	53	55	54	54	54	95	95	95	95	95	50	54	57	96	56	59	63	51	51	51	51	51
KNYR	HY04	98	98	98	98	98	98	98	98	98	98	98	98	99	59	60	60	59	59	61	60	58	61	61	99	99	99	99	99	99	99	81	86	85	63	96	74	64	54	56	56	56	58	58	56	56	56	56	56	
LPIA	HY01	20	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	17	17	17	17	17	17	16	16	16	16	16	16	16	16		
LPIA	HY02	15	15	15	15	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17	17	17	17	17	16	16	16	16	16	16	16	16		
MNOR	HY01	6	6	6	6	5	5	7	7	7	7	7	7	7	7	4	4	4	4	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	
PGAU	HY01	-1	-1	-1	-1	-1	21	-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	HY02	-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	-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	21	-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	4	4	5	5	5	4	4	4	4	5	5	5	4	4	5	5	4	4	5	5	4	5	5	4	5	4	5	5	4	4	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
SIHY	HY01	0	50	51	51	51	51	30	30	30	30	30	51	51	51	51	0	0	0	0	0	50	51	51	51	51	30	30	30	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SIHY	HY02	31	0	0	0	0	50	30	30	30	30	30	50	50	50	50	0	0	0	0	0	49	50	50	50	50	30	30	30	30	30	30	30	50	50	50	50	50	30	30	50	50	50	50	50	50	50	50		
SYPS	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	25	17	17	17	17	17	17	25	25	25	25	25	25	25	17	16	16	16	16	16	16	16	16		
SYPS	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	25	16	16	16	16	16	16	25	25	25	25	25	25	25	25	17	16	16	16	16	16	16	16	16		
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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
TMGR	HY02	34	31	34	34	33	34	33	34	31	34	34	34	34	34	34	34	34	34	34	34	33	34	34	34	33	34	30	31	34	31	31	33	34	31	30	32	31	31	31	26	31	34	32	30	32	31	27		
TMGR	HY04	-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	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		
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		
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		
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	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		491	505	509	510	509	581	519	529	506	533	511	552	356	315	315	216	212	211	233	212	379	385	463	501	500	441	442	533	456	465	497	500	521	543	494	524	506	337	384	393	447	498	420	435	426	429	405	400	
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		
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	10	18	21	22	22	26	24	20	17	22	18	25	16	22	6	7	1	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	3	9	9	25	23	33	25	43	47	34	18	28	27	22	23	29	9	35	23	26	20	10	3	1	1	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	8	8	8	8	8	14	14	14	21	21	21	21	32	43	32	33	29	22	11	11	3	3	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	3	7	12	17	40	37	47	19	50	19	16	50	49	50	0	0	3	5	7	5	4	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	2	4	17	25	18	28	29	43	20	45	50	43																								

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