

Daily System Generation Summary on Saturday

Saturday, October 3, 2020

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,175 MW
Distillate	0 MW
Total TNB	2,175 MW
Total IPP	16,160 MW
Total Co-Gen	0 MW
Total System	20,757 MW

Generation Mix

Type	MWh	Percentage
Hydro	25,547	7.66 %
Gas	33,618	10.08 %
Total TNB	59,165	17.74 %
ST-Coal	210,777	63.20 %
LSS	2,537	0.76 %
Gas	60,018	18.00 %
Total IPP	273,332	81.96 %
Co-Gen	185	0.06 %
Total Co-Gen	185	0.06 %
Total Generation	332,682	99.75 %
PLTG	-375	-0.11 %
HVDC	-452	-0.14 %
Interconnection	-827	-0.25 %
Net Energy	333,509	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:	19:30:00 Hour
Total Set On Bus	16,380 MW
TNB Generation	3,614 MW
IPP Generation	12,052 MW
Spinning Reserve	700 MW
Maximum Demand	15,728 MW
Net Energy	333,509 MWH
Load Factor	88.35 %

Fuel Cost

Total Cost:	47,081,586.86 RM
Cost per Unit	14.17 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	389
Hydro	589
Syncon	320
Thermal	257
Total	1,555

Time	Weather	Temperature
Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	48
SRDG	3
TJGS	191
Total TNB	243
CBPS	48
KLPP	0
NPRI	143
PGLA	102
PLPS	21
SKSP	6
Total IPP	321
Total Gas	563
Total Gas Required	563

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	14046	13453	12977	12570	12379	12213	12281	12213	12103	13100	13927	14421	14416	14178	14551	14715	14860	14555	14317	14826	15705	15505	15117	14820

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Thursday, November 5, 2020 8:27:30 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Saturday

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	691	693	693	693	692	692	694	694	691	695	694	689	692	693	691	693	693	692	691	691	692	692	693	692	693	692	693	692	693	692																				
JMAH	U002	694	689	694	695	693	695	693	693	694	693	696	695	693	696	689	694	695	694	698	694	694	694	694	693	693	693	697	696	694	696	697	696	694	695	694	695														
JMHE	U002	898	899	852	850	855	847	841	781	781	780	780	779	780	780	779	778	780	778	781	915	920	920	916	916	917	919	922	920	920	918	921	919	919	919	920	918	919	968	983	980	976	979	986	982	978	983				
JMJG	U001	674	672	672	671	670	668	671	688	671	671	672	668	672	671	670	671	670	672	672	673	601	604	597	597	598	597	601	685	675	676	675	677	678	672	672	673	674	672	673	671	668	668	670	669	670	673	673			
JMJG	U002	671	677	672	677	673	677	675	672	672	673	679	677	666	670	667	669	671	676	672	677	647	513	498	501	500	497	542	680	680	672	669	668	667	671	675	672	673	672	676	676	678	677	672	673	673	673				
JMJG	U004	905	905	854	858	855	855	857	787	790	790	790	791	787	788	789	788	788	787	789	788	788	873	923	920	920	924	923	922	922	920	923	924	925	923	922	920	922	967	980	979	978	977	977	979	978	977				
JMJG	U005	590	590	598	590	586	585	588	587	590	590	585	589	581	589	589	591	590	590	589	585	585	582	586	584	585	585	584	581	582	581	553	486	384	372	358	351	350	218	110	0	0	0	0	0	0	0	0	0	0	0
PKLG	U004	280	277	278	277	278	279	275	275	277	279	278	280	278	281	282	278	276	278	278	278	281	280	277	273	289	282	278	279	280	280	279	278	279	278	276	279	278	280	279	279	276	273	276	277	277	274	282			
PKLG	U005	468	466	466	471	466	467	469	460	462	463	466	468	467	467	464	466	470	466	467	468	468	469	467	465	466	466	466	471	470	468	468	468	466	466	465	468	469	468	467	467	466	469	478	471	468	465	466	468		
PKLG	U006	446	449	448	446	450	446	451	450	449	449	450	455	448	446	445	444	447	445	449	446	449	446	448	449	447	449	447	445	446	449	449	449	449	449	448	446	446	445	450	449	449	449	449	446	446	446				
TBIN	U001	690	689	689	686	689	690	689	689	687	689	690	690	689	691	688	688	689	690	689	689	690	689	689	689	689	690	688	689	691	689	690	689	689	691	689	689	689	691	689	689	690	690	690	690	690	689	689			
TBIN	U002	691	693	692	694	693	693	692	696	693	691	690	690	693	691	694	691	690	692	690	693	692	690	692	693	694	689	693	693	690	692	694	690	691	695	691	692	692	691	692	692	692	694	693	690	692	691	693	691		
TBIN	U003	686	615	410	342	362	349	347	349	350	354	352	352	352	352	351	351	353	351	351	355	352	351	352	352	349	352	351	349	351	349	351	349	348	347	349	350	348	349	349	380	540	674	703	691	692	692	691	691	688	
TBIN	U004	903	903	853	854	853	851	854	784	782	784	784	784	783	782	783	782	781	781	782	784	783	873	919	923	923	926	920	922	923	923	923	923	923	923	925	922	924	923	923	924	923	921	974	973	973	973	973	973	973	973
Total ST-Coal		9287	9217	8871	8804	8816	8794	8794	8605	8594	8595	8606	8614	8578	8594	8587	8585	8590	8595	8602	8572	8365	8660	8762	8756	8748	8796	8942	9027	9007	9006	8977	8909	8811	8799	8776	8769	8773	8632	8562	8758	8913	8946	8925	8932	8931	8925	8922	8930		
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	
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	223	218	218	261	226	223	215	223	219	219	213	220	218	221	271	362	362	362	356	361	356	356	360	360	358	358	356	356	356	357	359	359	359	362	362	363	363	362	361	355	363	363	363	357	362					
GLGR	GT01	68	67	67	68	67	67	67	67	68	69	68	68	67	68	68	68	69	68	68	68	69	68	68	79	99	100	68	67	68	99	101	99	100	101	100	99	66	66	90	100	101	100	99	99	96	67	66	68		
GLGR	GT02	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	81	99	100	67	67	67	101	101	99	100	100	100	99	67	67	92	100	100	99	99	100	94	67	67	67			
GLGR	ST1C	71	72	71	71	70	72	72	72	72	71	72	72	71	71	71	72	71	72	71	72	72	76	91	91	79	72	73	88	91	91	91	91	91	91	91	74	73	83	90	91	91	91	91	91	91	73	72	72		
KLPP	GT15	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	509	508	509	515	502	391	311	317	320	321	312	321	322	319	319	317	322	318	322	515	525	518	521	515	518	506	516	520	524	521	521	521	523	522	521	516	518	518	526	522	525	518	515	512	518	519	511	519		
NPRI	BLK2	505	504	505	494	371	329	323	391	352	353	324	335	379	342	353	342	442	463	524	527	524	518	521	518	517	506	515	520	520	522	521	521	523	523	521	517	518	518	525	523	525	518	515	513	521	519	511	518		
PCGP	PGRG	594	594	595	603	585	592	490	498	402	301	302	302	301	303	302	182	182	598	601	603	608	600	602	596	598	583	595	602	608	605	602	604	605	603	601	594	600	601	614	607	608	598	596	590	600	597	589	602		
PGLA	GT11	163	161	162	165	159	160	161	162	164	166	161	164	166	164	163	162	174	160	177	166	197	202	212	180	186	160	163	164	186	171	190	203	180	206	164	188	194	194	214	209	208	219	218	216	219	218	215	162		
PGLA	GT12	165	165	165	168	162	164	165	165	167	168	165	167	167	167	166	178	164	180	170	200	206	214	184	190	162	166	167	189	174	194	206	184	210	167	191	197	197	216	211	212	221	219	220	222	221	219	166			
PGLA	ST10	203	203	205	200	201	203	202	202	201	201	200	200	202	200	202	201	203	206	208	202	224	224	234	225	208	202	202	202	210	220	225	237	215	226	207	219	225	221	236	237	230	242	243	242	238	242	240	201		
PLPS	GT11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	60	59	146	143	142	143	141	148	147	147	130	134	135	111	114			
PLPS	GT12	0	0	0	0	0	0	0	0	0	0	0	0	0																																					

Daily MW Generation on Saturday

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	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	
CEND	HY04	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	7	8	8	8	8	7	8	8	8	
KNRG	HY01	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	36	36	36	36	
KNRG	HY02	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	38	38	38	37	37	37	37	
KNRG	HY03	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	0	0	0	36	36	36	36	
KNYR	HY01	99	99	99	98	99	99	98	99	97	99	98	99	99	99	97	98	99	99	99	99	99	99	98	96	
KNYR	HY02	99	99	99	99	99	99	98	99	98	99	99	99	99	98	99	99	98	99	99	98	99	99	96	97	
KNYR	HY03	99	99	99	98	99	99	98	99	98	99	99	99	99	98	97	99	99	99	99	98	99	100	99	97	
KNYR	HY04	99	99	99	99	99	99	98	99	98	99	99	99	99	59	59	99	99	90	64	61	73	99	97	97	
LPIA	HY01	23	23	23	23	23	23	21	21	21	21	21	19	19	20	20	20	20	20	20	20	20	20	20	20	
LPIA	HY02	23	23	23	23	23	23	21	21	21	21	19	19	19	20	20	20	20	20	20	20	20	20	20	20	
MNOR	HY01	5	5	5	5	5	5	5	5	5	5	3	1	1	1	1	1	4	4	4	4	3	4	8	8	
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	80	21	21	21	21	21	81	81	107	108	-1	
PGAU	HY02	-1	-1	21	21	21	-1	-1	-1	-1	-1	-1	-1	21	21	21	21	21	21	21	110	109	111	20	-1	
PGAU	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	18	25	23	23	23	22	108	110	-1		
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	21	21	21	21	21	20	20	0	78	107	20	0		
SIHY	HY01	51	51	51	51	51	51	51	51	51	51	31	31	31	31	31	31	31	49	49	49	49	30	30	30	
SIHY	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	30	50	50	50	50	50	30	0	
SIHY	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50	29	50	50	50	0	
SYPS	HY01	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	17	17	17	25	25	17	17	
SYPS	HY04	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	17	17	17	25	25	17	17	
TMGR	HY01	83	-1	-1	-1	-1	-1	-1	-1	-1	-1	31	61	62	84	84	83	32	32	32	84	84	83	62	62	
TMGR	HY02	87	34	34	35	32	33	34	34	35	34	34	35	67	88	88	88	88	88	87	87	87	67	67	67	
TMGR	HY03	83	32	32	0	0	0	0	0	0	0	60	61	84	84	83	31	31	31	83	83	60	60	58	60	
TMGR	HY04	85	32	33	-1	-1	-1	-1	-1	-1	-1	8	0	0	0	0	81	85	85	85	85	84	61	61	59	
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	88	-1	-1	-1	-1	93	94	94	143	88	0	
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	91	83	-1	-1	-1	-1	95	91	90	-1	0	
UPIA	HY02	7	7	7	7	7	7	7	7	8	7	0	0	0	0	0	0	0	0	0	2	7	7	7	7	
Total Hydro		1101	859	883	818	813	794	794	791	788	786	812	785	787	812	739	575	586	719	856	857	965	986	986	1157	1121
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	1	1	3	8	10	13	22	20	19	16	13	14	18	16	
BSLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	4	11	14	29	23	24	23	30	30	16	24	19	24	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	4	8	10	13	15	20	28	29	34	32	26	25	24	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	4	8	18	32	38	16	34	35	34	38	34	27	20	
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	4	9	17	15	15	22	15	17	20	25	30	16	16	14	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	2	3	3	5	14	18	34	49	23	44	50	35	45	
JSLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	5	7	16	16	18	20	26	29	30	36	34	35	25	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	0	4	5	21	26	29	33	32	27	37	35	36	34	
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	0	3	6	19	15	23	29	30	32	30	28	23	29	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	2	8	6	13	30	30	20	21	31	39	32	24	26	25	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	1	3	7	15	23	27	34	31	42	35	40	34	41	57	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	3	6	15	6	14	10	18	34	22	30	26	37	27	25	
Total LSS		0	0	0	0	0	0	0	0	0	0	10	34	65	130	201	239	263	315	360	337	362	368	368	319	
PCUF	CUFG	3	3	4	4	3	2	4	3	4	3	3	4	4	5	2	3	4	3	4	5	3	4	4	9	
PCUF	CUFK	3	3	3	1	2	3	1	3	3	4	3	4	1	3	4	3	3	3	3	3	4	2	3	5	
Total Co-Gen		6	6	7	5	6	6	3	7	6	8	5	7	7	7	8	8	6	6	7	5	8	7	8	7	
Total Gen		13974	13615	13358	13170	12950	12763	12561	12463	12321	12222	12208	12220	12230	12231	12161	11876	12057	12621	13017	13442	13807	14119	14326	14402	

Daily MW Generation on Saturday

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