

Daily System Generation Summary on Sunday

Sunday, May 7, 2023

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,089 MW
Distillate	0 MW
Total TNB	2,089 MW
Total IPP	18,871 MW
Total Co-Gen	0 MW
Total System	24,242 MW

Generation Mix

Type	MWh	Percentage
Hydro	11,490	3.31 %
Gas	27,970	8.05 %
Total TNB	39,460	11.36 %
ST-Coal	215,690	62.07 %
LSS	5,855	1.69 %
Gas	85,724	24.67 %
Total IPP	307,269	88.43 %
Co-Gen	467	0.13 %
Total Co-Gen	467	0.13 %
Total Generation	347,196	99.92 %
PLTG	264	0.08 %
HVDC	-540	-0.16 %
Interconnection	-276	-0.08 %
Net Energy	347,472	100.00 %

Maximum Demand Record

Date: 5/8/2023	19,191 MW
Date: 4/13/2023	407,278 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	21:00:00 Hour
Total Set On Bus	17,945 MW
TNB Generation	2,500 MW
IPP Generation	14,259 MW
Spinning Reserve	1,178 MW
Maximum Demand	16,762 MW
Net Energy	347,472 MWH
Load Factor	86.37 %

Fuel Cost

Average Spinning Reserve During Peak Hour

Type	MW
GT	664
Hydro	291
Syncon	693
Thermal	513
Total	2,161

Time	Weather	Temperature
Afternoon	Cloudy	35
Morning	Sunny	25

Gas Usage

Station	(mmscfd)
GLGR	47
TJGS	43
Total TNB	90
CBPS	43
EMPP	270
NPRI	147
PCGP	88
SKSP	2
SPGP	104
Total IPP	653
Total Gas	743
Total Gas Required	743

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	16028	15333	14570	13935	13595	13244	13115	12776	12253	12630	13368	13842	13944	14013	14397	14636	14814	14838	14615	15130	16517	16762	16525	16293

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Tuesday, May 9, 2023 9:56:30 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Sunday

		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		706	705	707	707	705	704	669	602	401	352	296	212	214	215	214	212	214	212	213	214	214	214	213	214	214	214	285	400	636	703	706	706	705	706	706	704	708	704	706	704	704									
JMAH	U002		702	708	706	707	706	702	650	601	397	350	352	354	356	352	354	286	209	216	212	213	212	213	214	214	214	214	214	214	214	214	214	214	272	368	627	709	704	703	707	706	703	703	706							
JMHE	U001		973	976	977	980	963	901	900	901	901	851	850	848	850	852	849	851	853	851	851	851	849	850	878	877	881	884	879	874	879	878	946	947	949	951	950	950	950	950	952	982	976	975	976	973	974					
JMHE	U002		974	974	975	975	963	900	903	903	901	854	850	851	851	851	847	849	852	849	851	850	852	850	878	876	879	880	879	876	879	878	939	948	952	948	950	948	950	948	948	952	974	975	976	977	973	979	976	975		
JMJG	U002		672	678	678	673	666	672	679	672	677	672	675	668	673	673	674	676	676	676	673	673	671	669	674	671	669	669	668	672	667	671	668	669	667	667	676	670	670	677	669	666	666	668	668							
JMJG	U004		972	973	977	973	970	903	904	899	900	854	854	855	854	854	854	853	854	847	854	855	853	853	880	865	884	884	882	887	884	883	898	903	902	903	903	896	900	902	901	904	895	848	848	847	850	849	850	847		
JMJG	U005		985	981	983	981	977	900	899	901	900	848	844	856	846	853	845	851	851	854	849	848	846	850	881	881	880	880	881	881	881	880	932	949	952	947	947	952	946	951	947	965	976	972	977	978	975	975	974	978		
PKLG	U004		276	286	272	273	240	173	151	154	149	150	156	153	154	154	154	155	146	147	146	146	147	147	148	148	145	145	147	148	148	155	154	153	156	147	149	148	148	154	254	292	280	278	273	276	274	275	250			
PKLG	U005		470	471	471	471	420	321	267	267	271	268	269	268	268	270	268	269	269	269	269	269	269	269	268	269	271	267	269	269	268	268	269	268	269	269	267	269	267	270	270	319	423	473	473	473	473	477	477	428		
PKLG	U006		449	449	448	447	447	390	299	269	269	269	267	269	269	269	269	267	269	269	269	268	271	269	268	269	268	269	269	269	269	268	268	269	269	269	269	269	269	268	296	381	436	447	446	448	449	446	445	447		
TBIN	U001		696	700	697	697	696	693	696	698	701	696	698	698	700	698	696	696	696	697	698	697	698	697	694	698	697	699	696	699	696	698	698	699	699	696	695	699	697	699	694	697	700	697	697	697	697	699				
TBIN	U002		695	694	695	699	694	698	695	697	697	695	698	697	700	699	699	697	699	699	697	699	699	698	696	699	697	703	698	695	696	699	697	694	700	700	697	698	697	695	697	695	697	695	701	694	694	694	697	697	698	697
TBIN	U003		697	695	696	695	695	695	695	695	695	696	694	695	696	695	694	695	696	695	696	695	697	696	695	695	695	695	697	696	696	696	695	696	695	696	695	697	696	696	694	695	696	695	692	692	695	694	694	693		
TBIN	U004		984	983	983	984	977	902	903	901	905	852	853	854	853	853	852	853	855	853	855	853	853	853	884	883	883	883	883	882	884	883	955	952	953	953	953	954	953	952	953	984	982	983	982	984	981	982	985	983		
Total ST-Coal			10251	10273	10265	10262	10119	9554	9310	9160	8764	8409	8353	8279	8281	8289	8269	8214	8150	8131	8136	8129	8127	8128	8274	8275	8280	8284	8276	8270	8281	8272	8541	8577	8591	8656	8756	9001	9057	9124	9254	9860	10131	10120	10124	10122	10115	10125	10119	10049		
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		
CBPS	BLK2		222	220	221	222	221	221	221	221	220	220	222	221	221	220	222	221	221	222	221	222	221	222	221	222	221	222	221	223	288	355	349	340	221	221	348	357	353	335	356	356	356	331	360	360	360	360				
EMPP	BLK1		583	408	409	427	410	438	415	414	456	414	410	411	408	410	408	410	411	409	409	409	556	646	603	623	544	616	652	702	701	709	690	709	712	709	705	693	687	711	712	715	710	712	711	713	691	715	686	708		
EMPP	BLK2		701	693	642	429	410	446	419	414	456	414	410	411	408	408	408	409	411	409	409	410	563	648	614	624	542	615	654	700	697	710	690	710	711	709	705	693	687	711	712	716	710	711	711	713	691	715	686	708		
EMPP	BLK3		702	692	641	427	410	442	419	413	456	671	637	597	613	516	520	410	411	409	410	708	710	710	709	701	696	709	711	698	699	710	691	709	711	710	705	692	687	711	712	713	709	711	710	713	691	715	687	707		
GLGR	GT01		0	0	28	36	76	68	66	65	66	64	66	65	64	65	65	65	65	65	67	65	65	65	65	65	65	65	64	64	65	65	64	65	65	83	94	83	65	64	66	102	101	101	102	103	103	69	102	103		
GLGR	GT02		94	107	107	107	91	67	65	65	65	65	65	65	65	65	65	66	66	65	65	65	66	66	65	65	65	65	65	65	65	65	65	65	84	94	82	66	65	65	95	95	96	95	96	97	67	97	97			
GLGR	ST1C		42	47	47	47	41	77	73	72	73	73	73	73	73	72	72	72	72	73	73	73	72	72	72	73	73	73	73	73	73	73	73	79	91	89	74	73	88	94	94	94	94	95	94	76	93	95				
NPRI	BLK1		513	514	518	469	379	464	474	515	517	515	516	512	517	511	324	320	317	326	326	324	327	323	320	326	326	326	346	454	511	502	511	511	512	508	505	503	508	511	512	510	511	514	512	505	510	503	505			
NPRI	BLK2		521	515	529	523	475	478	482	517	529	526	525	521	524	520	518	330	326	329	336	333	331	331	332	323	332	331	330	457	505	528	499	520	521	519	504	504	517	522	526	521	521	524	521	505	530	496	513			
PCGP	PGRG		589	589	599	602	599	607	603	600	608	601	599	592	596	603	594	497	488	535	571	601	602	603	598	590	598	599	593	588	594	603	590	602	602	605	597	592	586	597	603	611	600	602	609	605	591	609	586	588		
SKSP	BLK1		217	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
SPGP	BLK1		716	715	712	714	713	712	713	714	714	710	711	712	711	713	713	715	714	713	714	716	715	712	711	711	712	712	710	708	708	710	707	706	699	701	704	706	707	709	708	711	709	709	711	714	712	711	713			
TJGS	GT1A		127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
TJGS	GT1B		112	113	113	113	113	113	113	113	113	113	113	113	113	119	119	119	121	122	121	121	121	121	121	121	121	121	122	119	119	121	121	121	219	215	215	209	123	210	214	215	215	215	214	211	182	211	215			
TJGS	ST1C		72	71	71	71	71	71	71	71	71	71	71	71	71	76	76	76	76	76	76	76	75	75	75	75	75	75	75	75	76	76	75	76	76	116	116															

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				
KNYR	HY01	98	98	98	98	98	99	99	99	99	99	99	99	99	99	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	60	59	-1	-1	-1	-1	99	99	99	99	99	98	99	98	98				
KNYR	HY02	100	100	100	100	100	100	100	100	100	100	100	100	100	100	60	59	58	60	61	61	61	61	60	58	59	59	59	75	59	60	60	60	92	90	67	59	58	61	92	78	61	77	69	64	59	100	96	97		
KNYR	HY03	100	99	99	98	97	97	96	96	96	96	97	98	98	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	95	95	96	97	98	98	99	99	99		
LPIA	HY01	14	14	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	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		
LPIA	HY02	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	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		
PMNOR	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			
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	18	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	21	21	21	22	21	21	-1	-1		
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	-1	-1			
PGAU	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	0	
PGAU	HY04	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	18	0	0	0	0	0	0	0	0	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	51	51	51	51	51	51	51	51	51	51	51	51	0	0	0	0	0	0	0	31	31	50	50	51	51	30	30	30
SIHY	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	30	30	50	50	50	50	30	30	30	
SYPS	HY01	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	17	17	17	17	17	17	17	0	0	0	0	0	0	0	17	17	25	25	25	25	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	0	17	17	17	17	17	17	17	17	17	17	17	17	0	0	0	0	0	0	0	0	17	17	25	25	25	25	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	0	17	17	25	25	0	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	-1	-1	-1	-1	-1	-1	-1	-1	-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	35	-1	-1	-1	-1	87	87	86	87	87	87	86	86	-1			
TMGR	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	48	46	45	48	49	46	45	69	66	46	46	47	89	91	90	44	44	46	81	73	46	72	64	46	45	90	46	47	
TMGR	HY03	40	40	41	46	40	66	47	41	63	80	69	41	56	41	40	41	39	41	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	33	32	33	32	33	83	83	83	83	83	82	83	82	32		
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	93	-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	0	0	0	0	0	0	105	-1	-1	0	0	93	0	0	0	0	0	0	0	0	0	0	0	0	0	-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	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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
Total Hydro		427	426	428	433	426	453	453	447	449	466	456	429	444	449	190	190	206	192	227	237	254	250	299	322	430	296	295	336	317	413	308	311	385	544	405	255	253	277	486	965	962	1181	1168	1145	1078	964	819	573		
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		
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	5	7	8	11	17	15	23	22	20	18	20	24	20	24	23	7	9	8	5	3	1	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	0	1	4	4	10	11	12	14	15	14	17	15	10	15	22	18	19	15	17	11	6	7	5	2	1	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	0	0	3	5	8	10	14	15	17	25	23	28	30	27	11	8	9	6	5	10	8	8	5	3	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	0	0	1	4	7	12	14	15	16	19	21	29	33	30	24	36	33	39	36	20	23	16	13	9	4	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	0	0	3	5	10	16	19	22	29	31	36	28	26	29	30	28	27	16	20	12	10	7	3	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																																				

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		
ESTL	ESTL	10	13	13	13	12	11	14	16	14	15	16	16	14	16	18	18	18	18	16	15	16	18	17	15	18	16	16	15	16	17	16	16	16	17	14	16	18	14	8	8	0	0	0	0	0	0	0	0	0
PCUF	CUFG	3	2	4	6	3	4	3	4	4	2	4	4	4	4	3	4	4	3	4	4	4	4	3	3	3	3	3	1	3	2	4	5	4	4	4	4	4	2	4	4	3	4	3	4	3	4	3	2	
PCUF	CUFK	8	8	7	5	3	3	4	3	3	2	4	3	2	3	4	4	3	4	4	4	3	4	4	3	3	3	2	3	2	4	4	3	4	3	4	3	2	4	2	2	2	2	5	2	4	3	2	3	
Total Co-Gen		21	23	24	24	18	18	21	23	21	19	24	23	20	23	25	26	25	25	24	23	23	26	24	21	24	22	22	18	22	21	24	25	23	25	21	24	25	18	16	14	5	6	8	6	7	7	5	5	
Total Gen		16048	15563	15354	14906	14572	14229	13918	13824	13578	13351	13249	13096	13124	13056	12773	12196	12234	12367	12571	12980	13369	13629	13791	13899	13906	13909	13994	14234	14346	14555	14609	14718	14799	14986	14833	14704	14616	14719	15129	16311	16525	16762	16767	16741	16541	16449	16277	16055	
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			
TIE-HVDC		0	0	0	0	0	0	0	0	0	0	-29	-29	-31	-31	-29	-29	-29	-29	-29	-29	-31	-31	-29	-29	-29	-29	-28	-28	-30	-30	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-29	-28	-30	-27	-27	-30	-30	-30	
TIE-PLTG		20	15	21	20	2	-14	-17	-2	-17	18	5	9	39	18	28	10	10	2	-30	-3	30	5	-20	-16	-9	-25	10	14	-23	-2	4	-4	15	13	24	30	30	44	28	29	36	44	35	15	44	14	15	14	
Interconnection		20	15	21	20	2	-14	-17	-2	-17	18	5	-20	9	-13	-3	-19	-19	-27	-59	-32	1	-25	-51	-45	-38	-54	-19	-14	-51	-32	-27	-33	-15	-16	-5	1	1	15	-1	0	8	14	5	-12	16	-16	-16	-16	
System Total		16028	15548	15333	14886	14570	14243	13935	13826	13595	13333	13244	13116	13069	12776	12215	12253	12394	12630	13012	13368	13654	13842	13944	13944	13963	14013	14248	14397	14587	14636	14751	14814	15002	14838	14703	14615	14704	15130	16311	16517	16748	16762	16753	16525	16465	16293	16071		
SRev ST-Coal		150	128	136	139	260	644	717	784	773	791	786	794	784	787	793	784	780	796	792	787	794	789	794	791	797	785	794	705	704	711	529	491	478	484	491	479	420	414	414	304	159	121	117	119	126	116	122	334	
SRev 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		
SRev CCGT-Gas		1211	1011	971	1421	1648	1453	1523	1463	1313	1200	1241	1292	1278	1362	1368	1942	1956	1914	1860	1533	1232	1057	1147	1146	1287	1129	1058	836	679	558	664	501	428	262	267	468	546	444	299	203	245	217	205	204	331	319	323	229	
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	
SRev LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev Co-Gen		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Syncon		1041	1041	1041	1041	1041	1041	890	890	1041	891	1041	1041	1041	890	1142	1142	991	991	991	804	653	804	654	804	804	991	991	804	804	804	804	804	804	277	615	654	804	804	678	489	489	338	338	338	525	525	802	1041	
Hydro		117	118	116	111	118	91	242	248	95	78	88	115	100	246	153	153	288	152	167	158	292	170	171	148	190	148	149	109	128	222	177	174	100	408	256	217	219	345	212	270	573	505	518	541	607	646	514	246	
S.Reserve Total		2606	2385	2351	2799	3154	3316	3459	3472	3309	3047	3243	3329	3290	3372	3543	4108	4102	3940	3897	3282	2971	2820	2766	2889	3078	3078	2992	2640	2315	2295	2174	1970	1810	1431	1629	1818	1989	2007	1603	1266	1466	1181	1178	1202	1589	1606	1761	1850	