

Daily System Generation Summary on Friday

Friday, July 14, 2023

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	1,893 MW
Distillate	0 MW
Total TNB	1,893 MW
Total IPP	17,565 MW
Total Co-Gen	0 MW
Total System	23,460 MW

Generation Mix

Type	MWh	Percentage
Hydro	13,283	3.56 %
Gas	50,034	13.43 %
Total TNB	63,317	16.99 %
ST-Coal	218,010	58.50 %
LSS	4,653	1.25 %
Gas	86,681	23.26 %
Total IPP	309,344	83.00 %
Co-Gen	640	0.17 %
Total Co-Gen	640	0.17 %
Total Generation	373,301	100.17 %
PLTG	-121	-0.03 %
EGAT	6	0.00 %
HVDC	730	0.20 %
Interconnection	615	0.17 %
Net Energy	372,686	100.00 %

Maximum Demand Record

Date: 5/11/2023	19,716 MW
Date: 5/11/2023	416,902 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:00:00 Hour
Total Set On Bus	18,691 MW
TNB Generation	3,005 MW
IPP Generation	14,004 MW
Spinning Reserve	1,685 MW
Maximum Demand	16,991 MW
Net Energy	372,686 MWH
Load Factor	91.39 %

Fuel Cost

Average Spinning Reserve During Peak Hour

Type	MW
GT	534
Hydro	352
Syncon	688
Thermal	144
Total	1,718

Gas Usage

Station	(mmscfd)
GLGR	29
TJGS	92
Total TNB	121
CBPS	43
EMPP	289
NPRI	131
PCGP	84
SPGP	210
Total IPP	756
Total Gas	877
Total Gas Required	877

Alternate Fuel Usage

Station	(mmscfd)
Total	0

Time Weather Temperature

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	16061	15201	14717	14210	13817	13526	13686	13740	13943	15435	16175	16526	16576	16424	16353	16936	16991	16698	15698	15601	16548	16321	15713	15392

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Monday, July 24, 2023 11:41:46 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Friday

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	705	706	704	707	706	706	708	704	703	705	705	706	703	705	710	704	705	708	706	706	705	706	703	702	697																								
JMAH	U002	707	704	705	705	701	706	708	701	707	703	703	700	710	703	704	701	699	701	707	704	701	705	705	700	708																								
JMHE	U001	977	976	900	854	848	812	700	699	700	700	697	701	703	701	701	701	716	923	977	972	975	971	975	974	970																								
JMHE	U002	500	501	498	504	499	503	500	501	500	498	498	499	500	500	505	501	500	500	502	500	504	500	500	499	497																								
JMJG	U002	671	671	665	672	673	667	673	670	671	667	668	672	673	666	672	673	668	677	671	666	668	667	672	674	674																								
JMJG	U003	679	677	671	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	262	313	633																									
JMJG	U004	982	977	961	906	900	901	898	897	874	851	853	854	854	855	848	857	852	908	970	977	974	977	977	985																									
JMJG	U005	980	978	938	898	898	899	902	900	900	897	900	901	902	901	898	901	902	979	979	980	977	983	982	981	983																								
PKLG	U003	195	154	159	159	161	219	283	283	278	275	276	275	276	275	274	275	275	277	275	276	277	276	277	276	278																								
PKLG	U005	366	282	269	269	267	311	393	463	466	465	464	466	468	468	467	466	466	467	468	465	465	466	464	464	465																								
PKLG	U006	449	447	450	448	449	447	447	449	447	447	449	447	450	448	447	443	451	455	411	417	455	451	449	449	447																								
TBIN	U001	701	698	701	696	708	697	701	693	701	696	699	698	702	691	701	699	700	698	701	701	697	701	700	698	700																								
TBIN	U003	694	693	695	695	695	694	692	693	692	696	694	694	694	691	683	667	666	665	666	666	665	667	666	667	669																								
TBIN	U004	982	980	952	903	903	904	906	903	861	852	855	851	854	853	854	851	853	942	982	983	982	981	983	982	983																								
Total ST-Coal		9588	9444	9268	8416	8408	8466	8511	8556	8500	8452	8461	8464	8489	8457	8455	8448	8453	8895	9017	9010	9044	9058	9058	9209	9324	9376	9381	9405	9429	9441	9535	9535	9607	9625	9621	9611	9631	9633	9626	9634	9620	9662	9674	9687	8735	8737	8665	8706	
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	220	221	221	220	221	221	221	221	222	220	221	222	220	221	221	220	221	220	221	360	360	359	360	222	298	339	222	301	360	360	360	359	360	222	222	222	222	287	358	328	221	220	221	223	221	222			
EMPP	BLK1	711	672	654	707	709	678	583	571	538	528	461	463	502	566	535	506	486	633	707	707	689	709	709	710	684	708	683	678	682	685	680	689	683	694	688	696	610	575	618	710	693	704	693	710	697	711	696	708	
EMPP	BLK2	710	672	663	711	709	681	584	572	539	530	466	467	505	565	531	502	486	637	708	708	691	709	709	711	686	710	683	678	680	686	676	688	682	695	687	698	604	573	617	710	693	709	692	710	699	709	694	709	
EMPP	BLK3	710	672	663	709	709	680	583	572	539	530	465	468	501	568	534	502	488	635	707	708	689	710	709	710	685	707	682	679	680	684	677	687	684	696	687	697	606	577	617	710	694	709	691	710	697	709	697	708	
GLGR	GT02	94	94	94	94	94	93	94	94	94	93	94	93	93	94	93	94	94	94	94	94	94	94	94	93	94	94	94	94	93	94	94	94	93	94	95	95	95	95	95	94	95	95	94	94	94	95	94		
GLGR	ST1C	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41				
NPRI	BLK1	419	328	334	356	419	331	332	331	333	332	329	335	331	333	331	331	331	332	370	517	516	519	520	521	512	506	509	507	464	508	503	509	506	512	506	430	331	331	332	523	515	520	515	413	366	517	497	503	
NPRI	BLK2	398	328	327	347	388	326	327	329	329	326	325	331	325	330	325	325	325	329	353	517	514	519	520	520	510	517	508	506	466	506	502	508	505	511	505	418	326	328	326	521	514	520	514	394	340	369	467	484	
PCGP	PGRG	600	600	601	604	600	601	598	403	400	404	398	403	402	400	400	401	599	600	602	596	594	600	600	604	590	601	586	583	592	591	581	593	588	596	590	598	602	601	601	602	594	601	593	602	598	601	599	600	
SPGP	BLK1	713	713	711	713	716	717	716	717	685	686	686	685	684	684	684	685	721	719	720	722	721	721	721	719	720	723	724	723	721	721	722	719	721	720	719	718	720	718	719	719	722	719	720	720	723	722	723	722	
SPGP	BLK2	723	721	724	724	728	726	729	729	689	691	687	690	688	690	688	681	722	726	724	724	722	727	728	726	717	729	711	706	714	715	710	716	713	722	712	722	729	729	729	729	723	726	714	728	726	726	724	726	
TJGS	GT1A	139	139	135	138	138	138	137	138	139	135	135	140	137	137	136	139	136	137	135	138	210	235	235	232	134	133	131	131	136	134	132	134	131	137	138	135	139	135	135	238	167	137	102	0	0	0	0		
TJGS	ST1C	79	79	78	78	78	78	78	78	77	78	78	77	78	78	77	78	77	78	78	78	104	120	121	121	79	79	78	78	78	77	78	78	77	78	78	79	79	79	79	78	78	120	99	76	0	0	0	0	
TJGS	GT2A	132	131	122	225	172	164	164	164	164	162	164	164	164	164	165	165	165	164	164	164	225	227	227	170	164	164	164	122	138	224	189	187	146	122	0	0	0	0	0	0	0	0	0	0	0	0	0		
TJGS	GT2B	128	129	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	135	219	185	184	142	118	160	161	161	160	160	161	160	160	161	160	160	160	160		
TJGS	ST2C	192	192	72	118	103	92	92	92	91	92	92	92	92	92	92	92	92	92	92	92	117	117	117	103	93	93	93	79	178	238	227	229	211	191	101	96	94	94	94	94	94	94	94	94	94	94	94		
Total CCGT-Gas		6009	5732	5490	5785	5825	5567	5279	5052	4879	4850	4640	4672	4765	4961	4854	4762	4983	5438	5714	6027	6201	6406	6409	6413	6085	6026	5985	5999	5890	6195	6436	6418	6385	6354	6236	5810	5361	5259	5384	6114	6254	6192	5959	5774	5457	5676	5708	5771	
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	0
BSIA	HY01	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	22	22	20	20	20	20	20	20	20	20	20	20	20	20	21			
BSIA	HY02	11	11	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	11	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6																																	

Daily MW Generation on Friday

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	HY04	100	100	100	100	100	99	100	100	100	100	100	100	100	99	99	97	97	96	97	99	98	98	100	100	100	100	100	99	99	99	100	99	99	100	99	100	100										
LPIA	HY01	15	15	15	15	15	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	15	15	15	15	15	15	15	15	15										
LPIA	HY02	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14										
MNOR	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										
PGAU	HY01	-1	-1	-1	21	20	-1	-1	-1	-1	-1	-1	-1	-1	-1	18	-1	-1	21	20	20	20	20	18	16	20	-1	18	-1	-1	-1	-1	-1	-1	-1	10	149	80	-1	-1								
PGAU	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	21	21	21	21	21	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	150	82	81	-1									
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										
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										
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										
SYPS	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										
SYPS	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										
SYPS	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	0	0	0	0	0	0	0	0	0	0	0	0	0										
TMGR	HY01	-1	0	0	-1	-1	-1	-1	0	-1	-1	0	-1	0	-1	0	-1	0	0	0	-1	0	0	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1									
TMGR	HY03	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										
TMGR	HY04	43	41	43	44	71	41	41	42	41	42	47	46	41	44	41	41	43	44	43	43	69	41	56	41	42	41	41	40	42	42	40	43	40	40	39	41	40	41									
UJLI	HY01	-1	-1	-1	142	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	180	107	104									
UJLI	HY02	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1	-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	HY02	8	8	8	8	8	7	8	7	7	7	7	7	8	8	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8									
Total Hydro		490	455	457	748	481	427	425	428	425	431	433	428	433	430	430	432	452	451	428	475	468	480	467	467	464	459	434	439	491	508	473	628	630	536	510	510	531	531	541	673	672	672	687	1440	1249	1021	791
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		
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	6	9	12	18	19	19	11	10	14	8	9	6	9	22	16	12	8	5	4	3	1	0	0	0	0	0	0	0	0	
BKLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	7	10	9	23	18	13	17	13	27	23	28	17	25	25	19	21	14	14	9	5	2	0	0	0	0	0	0	0	0	0	
BSLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	10	14	21	24	24	27	28	21	32	19	29	12	5	8	6	6	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	0	4	12	17	28	19	26	35	40	29	41	19	36	24	19	19	21	11	9	7	4	2	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	1	2	5	8	7	10	10	11	11	13	15	16	18	20	21	20	18	14	13	14	7	3	1	0	0	0	0	0	0	0			
GELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	3	3	3	2	3	5	7	7	12	17	15	16	16	10	8	7	4	2	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	5	7	10	17	18	31	28	42	36	17	16	21	29	19	14	20	18	16	2	7	2	0	0	0	0	0	0	0	0			
JELS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	12	14	20	24	27	30	20	19	17	15	18	15	13	15	11	11	3	1	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	1	1	1	8	15	30	27	28	33	44	44	44	42	27	29	31	25	19	13	10	10	10	0	0	0	0	0	0	0	0			
KDLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	19	33	27	46	63	73	84	89	84	91	45	26	37	28	29	20	21	23	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	2	9	12	21	25	28	35	39	42	23	19	15	48	17	20	18	15	15	11	0	0	0	0	0	0	0	0	0	0	0			
KMLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	10	6	19	19	23	27	27	26	26	16	28	25	10	10	8	6	8	1	1	0	0	0	0	0	0	0	0	0	0		
KNLS	LSS3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	17	32	56	68	61	75	73	97	67	31	10	22	89	34	45	4	8	4	4	6	4	4	0	0	0	0	0	0	0	0		
KRLS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	6	15	21	21	23	17	30	18	5	3	3	13	15	17	1	2	2	1	0	0	0	0	0	0	0	0	0	0			
MALS	LSS2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	22	26	30	29	29	21																									

Daily MW Generation on Friday

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				
PCUF	CUFK	26	26	27	27	25	26	26	26	26	26	27	24	25	28	25	27	25	27	25	26	26	25	26	26	27	26	24	25	26	26	26	27	25	27	25	26	27	29	27	27	25	25	26	25	27	26	25	24		
PFTZ	PFTZ	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	11	4	4	4	4	4	4	9	9	9	8				
Total Co-Gen		26	28	25	28	29	36	40	40	44	41	39	34	36	39	39	40	34	34	32	32	33	18	30	31	22	26	24	19	7	11	16	7	-3	2	5	13	31	27	22	27	22	24	24	25	31	32	31	28		
Total Gen		16113	15659	15240	14977	14743	14496	14255	14076	13848	13768	13571	13603	13718	13890	13778	13689	13951	14951	15459	15833	16212	16477	16576	16735	16639	16516	16461	16394	16377	16754	16988	16968	17006	16959	16722	16168	15700	15540	15599	16316	16569	16550	16329	16173	15663	15694	15425	15296		
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			
TIE-HVDC		29	29	31	29	30	29	31	31	32	33	33	33	32	33	33	33	33	31	31	33	32	32	33	33	32	32	33	33	32	32	33	33	32	32	33	33	32	32	33	33	34	31	33	-40	30	30	30	30		
TIE-PLTG		23	22	7	0	-4	4	13	5	-1	4	12	-11	0	-12	4	2	-25	-21	-7	-27	4	38	17	20	31	12	4	-17	-9	23	18	-14	-18	-26	-9	-8	-31	-39	-35	-57	-12	-41	-23	-36	-11	-18	3	2		
Interconnection		52	51	39	29	26	33	45	36	31	38	45	23	32	21	38	35	8	10	24	6	37	70	50	53	63	44	37	16	24	56	52	20	15	6	24	25	2	-7	-2	-24	21	-7	8	-3	-50	12	33	32		
System Total		16061	15608	15201	14948	14717	14463	14210	14040	13817	13730	13526	13580	13686	13869	13740	13654	13943	14941	15435	15827	16175	16407	16526	16682	16576	16472	16424	16378	16353	16698	16936	16948	16991	16953	16698	16143	15698	15547	15601	16340	16548	16557	16321	16176	15713	15682	15392	15264		
SRev ST-Coal		183	202	369	481	476	487	446	431	430	441	433	435	408	439	431	412	431	291	153	160	142	112	142	191	176	174	169	145	111	119	110	145	123	125	129	139	119	217	224	216	180	138	176	163	145	113	185	114		
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	0		
SRev CCGT-Gas		927	1204	1314	797	757	1015	1303	1530	1703	1732	1942	1910	1817	1621	1728	1820	1599	1144	868	555	381	176	173	169	497	556	597	583	914	657	476	518	551	582	700	772	1221	1323	1198	468	342	390	623	808	770	551	519	456		
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		-1	0	0	0	0	0	0	0	-3	1	-1	-2	0	-2	0	0	1	0	-1	2	-1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0	-1	-1	0	-1	0	1	0	0	1
Syncon		703	615	615	239	552	703	703	615	890	890	890	802	890	802	890	802	890	739	651	890	651	588	588	500	500	500	588	651	651	890	739	890	703	703	890	890	890	890	890	890	890	802	802	802	651	187	187	464	703	
Hydro		206	155	153	325	231	134	136	134	135	135	129	128	132	128	130	131	128	259	261	132	237	394	382	396	396	399	403	278	273	144	278	162	306	304	211	150	150	129	129	119	287	288	288	424	135	326	277	268		
S.Reserve Total		2018	2350	2625	1929	2103	2426	2675	2884	3242	3286	3480	3447	3334	3162	3266	3339	3136	2520	2106	1826	1584	1357	1372	1430	1743	1803	1844	1831	2123	1896	1690	1803	1685	1714	1930	2039	2467	2646	2528	1779	1610	1618	1888	2046	1238	1177	1445	1542		