

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	1,627 MW
Distillate	0 MW
Total TNB	1,627 MW
Total IPP	17,426 MW
Total Co-Gen	0 MW
Total System	22,761 MW

Generation Mix

Type	MWh	Percentage
Hydro	10,504	2.72 %
Gas	66,113	17.13 %
Total TNB	76,617	19.85 %
ST-Coal	200,940	52.06 %
LSS	7,168	1.86 %
Gas	101,908	26.40 %
Total IPP	310,016	80.32 %
Co-Gen	581	0.15 %
Total Co-Gen	581	0.15 %
Total Generation	387,214	100.32 %
PLTG	2,519	0.65 %
HVDC	-1,282	-0.33 %
Interconnection	1,237	0.32 %
Net Energy	385,977	100.00 %

Maximum Demand Record

Date: 5/24/2022	19,183 MW
Date: 5/24/2022	398,523 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:00:00 Hour
Total Set On Bus	19,672 MW
TNB Generation	4,044 MW
IPP Generation	14,420 MW
Spinning Reserve	1,176 MW
Maximum Demand	18,464 MW
Net Energy	385,977 MWH
Load Factor	87.10 %

Fuel Cost

Total Cost:	111,314,063.50 RM
Cost per Unit	28.75 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	450
Hydro	229
Syncon	569
Thermal	207
Total	1,455

Time	Weather	Temperature
Afternoon	Hot	32
Morning	Sunny	28

Gas Usage

Station	(mmscfd)
GLGR	29
TJGS	195
Total TNB	224
CBPS	2
EMPP	309
KLPP	49
NPRI	135
PCGP	88
PLPS	40
SKSP	46
SPGP	210
Total IPP	879
Total Gas	1,103
Total Gas Required	1,103

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	15687	15019	14357	14010	13640	13497	13798	13779	14063	15620	16459	16937	16864	16813	17529	18151	18464	18036	16784	16449	17646	17549	17174	16921

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Tuesday, April 4, 2023 9:56:47 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Wednesday

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																											
JMHE	U001	978	976	948	947	948	898	903	902	849	851	851	847	853	850	845	853	858	923	976	975	976	974	977	978	977	978	979	979	977	979	982	974	978																		
JMHE	U002	974	973	949	951	947	899	899	903	848	851	850	849	851	851	847	852	856	936	959	973	976	976	976	974	973	974	975	976	971	969	976	974	978	968	973	976	973	976	979	971	975										
JMJG	U001	495	446	442	435	439	442	440	559	660	674	678	671	679	678	679	678	676	673	672	671	679	680	677	679	681	679	679	681	679	675	669	677	677	679	678	674	680	680	677	674	677	679	672	680	682	673	678	667			
JMJG	U002	682	679	679	681	682	681	678	677	679	679	679	662	672	667	677	684	679	679	682	682	677	679	680	680	681	678	678	672	626	585	648	647	679	678	683	682	687	683	678	683	678	679	677	677	680	680	678	682			
JMJG	U003	677	672	672	682	672	676	678	678	677	678	677	677	681	673	675	674	679	672	678	673	673	671	668	678	678	677	676	672	676	676	677	678	670	672	677	673	668	675	673	675	678	671	682	672	676	669	677	671			
JMJG	U004	972	977	962	961	955	914	911	910	888	859	860	861	861	862	862	860	863	901	958	974	978	981	976	977	978	972	969	969	975	972	969	972	974	972	974	969	974	976	974	972	977	975	975	974	972	969	972	970			
JMJG	U005	970	968	952	948	950	896	900	899	852	851	850	853	852	853	851	852	852	924	983	977	972	970	972	971	980	980	977	975	976	979	977	975	974	979	974	978	977	980	977	977	977	979	978	977	982	978	977	977			
PKLG	U003	278	277	278	278	278	277	250	157	162	149	151	151	151	184	260	262	256	276	283	280	279	281	281	280	281	279	280	279	279	280	280	271	278	278	277	277	278	276	276	275	277	276	275	277	277	277	277	277	275		
PKLG	U004	274	273	272	272	273	273	274	233	159	145	151	152	152	164	215	209	206	251	269	270	275	276	277	275	274	272	271	273	287	273	257	258	255	252	265	266	278	280	278	279	274	277	274	276	277	277	275				
PKLG	U006	446	447	450	449	436	446	438	441	445	444	441	446	447	449	448	448	449	446	447	449	446	449	447	448	446	450	449	449	449	447	449	449	448	450	448	449	447	427	446	447	451	449	449	448	446	450	450	449			
TBIN	U001	697	551	352	210	211	209	210	210	210	209	211	212	210	207	210	214	213	224	331	471	682	697	698	699	700	700	698	698	699	698	698	698	700	694	698	700	699	697	698	699	697	700	694	700	696	700	698				
TBIN	U002	264	209	211	211	211	212	211	212	211	212	210	211	212	213	208	212	216	211	208	213	210	210	212	211	210	211	212	211	286	435	610	696	698	697	700	700	699	697	699	705	700	701	697	698	685	513	334	245			
TBIN	U004	753	752	752	750	752	751	752	750	752	754	752	753	753	753	753	752	753	752	753	752	752	752	753	751	753	752	752	752	752	752	753	751	754	753	753	754	752	752	752	754	754	753	753	753	753	754	752				
Total ST-Coal		8460	8200	7919	7775	7754	7574	7544	7531	7392	7357	7359	7344	7376	7407	7527	7547	7556	7858	8091	8220	8364	8582	8591	8602	8610	8602	8597	8585	8619	8739	8959	9019	9058	9066	9067	9064	9069	9075	9081	9096	9087	9087	9087	9075	9082	8895	8719	8616			
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			
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	42	63	74	84	75	7	0	0	0	0	0			
EMPP	BLK1	720	720	720	720	720	720	720	660	538	438	434	540	639	710	608	410	512	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710		
EMPP	BLK2	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710		
EMPP	BLK3	713	713	710	710	710	710	709	708	709	710	710	710	710	710	702	693	699	710	710	710	710	710	710	710	710	710	710	710	710	710	710	710	708	710	710	710	703	706	707	710	710	709	710	710	708	710	710	710	710		
GLGR	GT01	93	93	96	94	93	94	95	96	94	94	95	95	95	95	93	93	96	95	94	92	94	94	95	93	95	94	94	94	94	94	93	94	95	94	93	92	94	96	94	93	94	95	93	95	95	93	94				
GLGR	ST1C	41	42	42	42	41	41	42	41	41	41	41	42	42	42	41	41	41	45	42	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				
KLPP	GT13	106	106	106	110	106	106	106	106	106	109	106	110	111	106	100	100	102	108	103	103	103	136	137	140	139	106	94	103	108	139	139	138	139	138	107	107	103	107	107	107	108	103	111	108	106	111	107	108			
KLPP	GT15	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	0	0	0	0	0	33	129	147	149	149	151	149	113	114	110	113	116	114	114	118	114	113	78	0	0	
KLPP	ST17	127	60	60	60	60	60	59	60	60	60	59	60	61	60	58	58	58	60	58	59	59	67	66	66	66	58	57	58	134	143	141	141	141	143	129	129	129	130	130	130	130	130	132	130	129	126	60	58			
NPRI	BLK1	512	514	518	527	501	523	523	323	323	325	325	367	362	428	301	301	313	438	362	506	512	509	516	514	511	503	499	514	521	512	514	514	502	513	507	505	500	391	458	491	491	483	514	513	503	514	514	511			
NPRI	BLK2	0	0	0	0	0	0	0	121	127	127	127	234	239	473	541	539	541	541	523	527	524	530	531	527	520	515	530	529	530	526	529	518	526	524	522	515	332	331	514	512	505	522	519	509	523	519	517				
PCGP	GGRG	594	597	603	607	587	602	605	603	598	608	605	608	606	604	563	563	584	623	599	587	603	598	609	604	600	583	575	605	622	602	605	600	582	602	592	588	573	605	604	595	590	572	610	601	584	611	604	598			
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	12	41	50	65	92	124	150	151	151	150	151	152	151	152	158	159					
PLPS	GT13	125	125	125	124	126	122	125	123	125	121	124	123	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	43	123	135	136	136	135	136	136	136	137	136	137	137	138	138	137	137	140	140	
PLPS	ST18	58	58	56	58	58	57	57	58	58	58	58	58	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	51	57	58	57	58	58	56	56	127	138	144	144	145	144	144	145	144	144	147	147
SKSP	BLK1	221	324	242	223	222	228	224	219	224	223	223	22																																							

Daily MW Generation on Wednesday

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	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
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
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
HTRG	HY03	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
HTRG	HY04	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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
KNRG	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
KNRG	HY03	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
KNYR	HY01	100	100	61	61	60	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
KNYR	HY02	100	100	63	72	61	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101
KNYR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
LPIA	HY01	15	15	14	13	13	13	13	13	13	13	13	14	15	15	15	16	15	15	15	15	16	16	16	16
LPIA	HY02	16	16	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	16	16	16	16	16	16
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
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
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
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
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
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
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
TMGR	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
TMGR	HY04	42	43	42	51	40	52	41	41	44	56	42	44	54	41	36	36	39	84	84	42	86	60	85	84
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	93	-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
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
UPIA	HY02	4	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		340	342	264	281	258	249	239	239	261	253	239	241	252	342	233	235	237	284	285	242	283	253	336	430
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	0	0	0	0	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	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	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	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	0	0	0	0	0	0	0	0
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0
JELS	LSS1	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0
KDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
KMLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPLS	LSS1	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 Wednesday

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																											
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	9	19	32	36	40	42	44	43	45	48	46	42	40	40	12	12	8	5	3	2	1	0	0	0	0	0	0	0	0							
STLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	8	8	13	14	21	24	15	16	23	21	24	23	22	19	17	14	11	8	5	2	0	0	0	0	0	0	0	0	0	0					
TBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	14	22	29	30	30	30	30	30	30	30	30	30	30	30	30	27	20	8	5	0	0	0	0	0	0	0	0	0	0	0						
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	12	102	226	402	546	635	712	778	891	891	922	919	984	953	913	886	872	744	654	530	378	235	114	40	6	0	0	0	0	0	0	0	0					
ESTL	ESTL	0	0	0	0	0	0	0	0	0	0	0	0	0	14	20	11	9	0	4	0	0	2	2	0	0	0	0	11	9	14	16	14	13	16	11	21	19	17	17	17	17	20	18	15	15	17					
KHTC	BLK1	0	0	0	1	1	3	1	1	2	4	4	3	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
PCUF	CUFG	3	3	5	3	2	4	4	6	6	5	3	3	4	3	2	2	5	3	3	3	4	4	2	4	4	4	5	4	3	4	4	3	4	5	4	3	3	4	4	4	4	4	4	4	4						
PCUF	CUFK	6	7	9	7	7	7	8	10	9	8	8	8	6	7	5	7	8	7	6	8	7	7	7	7	8	6	8	8	7	6	8	8	7	7	8	7	7	6	7	7	8	7	6	6							
PFTZ	PFTZ	5	5	5	5	5	5	5	5	5	5	5	5	6	6	5	5	6	6	6	6	5	6	6	6	6	5	5	6	5	5	6	6	5	5	6	5	5	5	5	5	5	5	5	5							
Total Co-Gen		14	15	19	16	15	19	18	22	22	22	20	19	16	17	15	30	39	26	23	17	20	17	17	16	19	17	17	17	15	30	26	29	32	32	29	31	28	39	35	32	32	33	33	36	35	31	30	32			
Total Gen		15741	15428	14996	14790	14481	14264	14075	13796	13684	13552	13539	13678	13882	14081	13908	13814	14086	14938	15598	16086	16455	16679	16919	17133	16950	16932	16872	17191	17584	18067	18178	18325	18496	18465	18128	17562	16866	16476	16507	17467	17781	17744	17618	17506	17216	17128	16951	16600			
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						
TIE-HVDC		29	31	31	32	29	31	30	30	29	32	29	30	29	29	29	-48	-99	-99	-97	-100	-100	-99	-97	-98	-97	-98	-100	-97	-98	-98	-99	-98	-99	-98	-100	-97	-98	-100	-98	-97	-98	-99	-100	-98	-50						
TIE-PLTG		25	48	-54	33	95	68	35	-9	14	-8	10	50	54	64	100	71	71	117	77	77	96	82	81	147	184	193	156	98	152	105	124	173	130	140	191	193	182	169	155	192	233	188	166	107	141	97	127	98			
Interconnection		54	80	-23	65	124	99	65	21	44	21	42	79	84	93	129	100	23	18	-22	-20	-4	-18	-18	50	86	96	59	-2	55	6	27	77	32	43	92	95	82	72	58	93	135	90	69	8	42	-3	30	48			
System Total		15687	15348	15019	14725	14357	14165	14010	13775	13640	13531	13497	13599	13798	13988	13779	13714	14063	14920	15620	16106	16459	16697	16937	17083	16864	16836	16813	17193	17529	18061	18151	18248	18464	18422	18036	17467	16784	16404	16449	17374	17646	17654	17549	17498	17174	17131	16921	16552			
SRev ST-Coal		419	303	389	391	413	590	614	749	650	630	639	654	626	640	630	621	622	535	327	309	303	243	236	224	215	224	230	241	242	221	226	150	151	143	142	185	180	174	168	149	158	158	158	170	163	233	230	244			
SRev CCGT-Gas		473	376	453	457	721	753	901	1171	1286	1375	1374	1251	1207	913	1361	1504	1342	980	697	433	341	379	297	300	369	455	579	624	364	360	306	493	535	481	564	530	971	1278	1187	495	536	596	505	473	539	482	401	487			
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					
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				
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 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				
Syncon		815	815	815	815	815	916	916	916	916	916	916	916	916	729	916	916	916	916	916	916	916	916	916	916	916	916	916	815	815	815	815	815	353	540	439	126	126	313	727	727	727	727	601	126	126	601	601	727	727	540	815
Hydro		124	122	200	183	206	114	124	124	142	110	124	122	111	208	130	128	126	79	78	121	80	110	117	210	148	162	164	151	119	347	262	221	364	391	332	213	249	233	221	302	457	435	177	217	171	125	257	116			
S.Reserve Total		1831	1616	1857	1846	2155	2373	2555	2960	2994	3031	3053	2943	2860	2490	3037	3169	3006	2510	2018	1779	1640	1648	1465	1362	1547	1656	1788	1831	1540	1281	1334	1303	1176	1141	1351	1655	2127	2412	2303	1547	1277	1315	1441	1461	1600	1567	1428	1662			