



***Maharashtra State Electricity Transmission
Company Ltd.***

State Load Dispatch Center, Airoli

Daily system Report

for

10/Sep/2014

State Load Dispatch Center, Airoli (MSETCL)
Daily system Report for 10/Sep/2014 WEDNESDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSGENCO	Daily	Monthly	E) Central Sector	Daily	Monthly
1) Thermal	80.235	842.092	1) Gujrat	3.215	-40.076
2) Hydro	24.904	167.119	2) Madhya Pradesh	13.326	138.432
3) Gas	10.822	94.386	3) Chattisgarh	5.810	66.700
Total MSGENCO	115.961	1103.597	4) Maharashtra Net	81.495	793.880
B) 1) JSW JAIGAD	25.182	264.815	(Incl. 765kV Solapur-Raichur)	-4.719	-33.555
2) WPCL	4.209	40.872	5) Goa	-6.531	-59.199
3) ADANI	12.160	106.363	6) TAPS 1&2 Injection	7.434	74.557
4) Other CPP / IPP	11.450	127.679	7) RGPPL Injection	0.000	0.000
5) Wind Generation	29.380	355.896	8) Pench (Excess)	-0.688	-7.081
6) PENCH (MS)	0.688	7.081			
7) SOLAR	0.741	6.409	# Total Cent. Sector	104.061	967.213
C) 1) TPCL Thermal	17.719	140.942	F) Other Exchanges		
2) TPCL Hydro	3.603	51.711	1) With TPCL (Excess)	-24.271	-241.605
TOTAL TPCL	21.322	192.653	G) Bilateral Power *		
3) REL Thermal	12.335	122.729	1) MSEDCL Bilateral	14.930	219.498
D) STATE			Include PX	-4.099	-11.225
1) Thermal (A1+C1+C3)	110.289	1105.763	2) MUMBAI Bilateral	20.987	197.729
2) Hydro (A2+B6+C2)	29.195	225.911	Include PX	7.686	57.587
3) Gas (A3)	10.822	94.386	3) MUMBAI Schedule	20.987	201.548
4) Wind (B5)	29.380	355.896	H) ENERGY CATERED (MUs)		
5) CPP/IPP (B1+B2+B3+B4)	53.001	539.729	1) MSEDCL	279.561	2738.320
6) SOLAR (B7)	0.741	6.409	2) TPCL	37.402	356.378
TOTAL STATE	233.428	2328.094	3) REL	20.523	200.608
			TOTAL STATE	337.486	3295.306

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW)

PARTICULARS	A. Morning Peak at 10 Hrs	B. Evening Peak at 20 Hrs	C. Night Minimum at 4 Hrs
MSGENCO Thermal	3276	3475	3214
MSGENCO Hydro	743	1710	1107
MSGENCO Gas	443	458	446
MSGENCO Total Generation	4462	5643	4767
Central Sector Receipt	5386	4988	2784
WIND	1616	1207	1156
CPP / IPP	2281	2209	2393
SOLAR	88	0	0
Exchange with Mumbai	-1266	-1063	-504
MSEDCL DEMAND MET	12618	13035	10596
Load Shedding	50	54	50
MSEDCL DEMAND	12668	13089	10646
TPCL GENERATION	953	1208	663
R-INFRA GENERATION	524	522	487
TPCL+R-INFRA DEMAND	2743	2793	1654
STATE DEMAND MET	15361	15828	12250
STATE DEMAND	15411	15882	12300
Frequency (Hz)	49.86	49.99	49.89

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.14 Hz at 18.19 Hrs	49.61 Hz at 06.16 Hrs	49.91	0 % of Time(min)

* Displayed for information, not added in total. # Total Cent. Sector includes MSEDCL and TPCL bilateral power.

State Load Dispatch Center,Airoli (MSETCL)

Daily and Progressive Generation,Maximum,Minimum,OLC Details for 10/Sep/2014

Generating unit	Generation				OLC (MW)
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)	
Koradi					
Unit 5	0.00	0.00	0	0	0
Unit 6	2.32	29.90	135	0	135
Unit 7	3.20	29.77	160	100	150
Total	5.52	59.67			285
Bhusawal					
Unit 2	0.00	6.89	0	0	0
Unit 3	0.00	11.84	0	0	0
Unit 4	0.00	0.00	0	0	0
Unit 5	8.76	88.40	395	330	450
Total	8.76	107.13			450
Parli					
Unit 3	0.00	0.00	0	0	0
Unit 4	0.00	0.00	0	0	0
Unit 5	3.61	31.43	158	143	150
Unit 6	4.78	42.24	214	185	250
Unit 7	4.84	37.56	223	190	250
Total	13.22	111.23			650
Chandrapur					
Unit 1	0.00	0.00	0	0	0
Unit 2	2.38	26.42	120	76	130
Unit 3	2.32	13.67	108	81	130
Unit 4	2.59	29.61	115	96	150
Unit 5	0.00	45.93	0	0	0
Unit 6	4.60	49.73	240	106	250
Unit 7	4.35	54.52	245	111	250
Total	16.23	219.86			910
Paras					
Unit 3	3.45	3.61	191	82	150
Unit 4	4.60	44.94	204	180	190
Total	8.05	48.55			340
Khaparkheda					
Unit 1	1.54	15.81	160	0	0
Unit 2	3.75	33.14	170	135	170
Unit 3	3.83	35.69	186	150	170
Unit 4	3.67	34.94	158	150	170
Unit 5	7.37	70.12	340	270	350
Total	20.17	189.70			860
Nasik					
Unit 3	3.95	37.38	180	140	180
Unit 4	0.31	28.97	149	0	0
Unit 5	4.02	39.59	179	140	190
Total	8.28	105.94			370
Uran					
All Units	10.82	94.39	460	443	470
Total	10.82	94.39			470
PENCH (MS)					
Pench (MS)	0.69	7.08	53	0	
Total	0.69	7.08			
Koyna					
Stage 1-2	6.71	37.32	500	40	600
Stage 4	9.00	54.57	698	0	250
Stage 3	4.14	26.86	320	80	320
Kovna 12&4 Total	15.71	91.90			850

Generating unit	Generation				OLC (MW)
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)	
Total	19.85	118.76			1170
Hydro					
KDPH	0.85	4.58	36	35	36
VTRNA	1.13	7.53	61	0	61
TILLARI	0.49	6.18	65	0	63
BHTGR/VEER	0.19	1.56	8	7	8
BHIRA T.R.	0.38	4.20	81	0	80
RNGR+BHTSA	0.04	0.46	2	1	0
BHANDARDRA	0.34	3.61	15	14	15
ELDARY	0.00	0.00	0	0	0
SMLHY PTN	1.31	12.60	62	51	9
GHATGHAR	0.32	7.65	120	0	0
Total	5.05	48.36			272
Wind					
MalharPeth	0.80	11.18			
Vankuswadi	1.22	18.64			
ATIT	0.18	2.35			
Kale	0.58	7.55			
Satara	13.92	171.45			
Shirala	0.80	10.48			
K Mahankal	0.08	1.28			
Supa	0.23	7.33			
Vita	2.91	35.34			
Dondaicha	4.94	49.94			
Sakri	0.78	7.62			
Nandurbar	0.86	8.91			
Khandke	1.02	13.85			
Khaparale	1.05	9.98			
Total	29.38	355.90			
CPP					
JSW JAIGAD	25.18	264.82	1176	930	1098
WARDHA	4.21	40.87	183	165	180
Adani	12.16	106.36	600	410	617
Other CPPs	11.45	127.68			445
Total	53.00	539.73			2340
SOLAR					
Total	0.74	6.41			
Total	0.74	6.41			
Tata					
Trombay 4	0.00	0.00	0	0	0
Trombay 5	10.00	65.57	500	186	500
Trombay 6	3.72	35.05	155	154	500
Trombay 7A	2.48	25.07	115	79	120
Trombay 7B	1.52	15.25	67	55	60
Trombay 8	0.00	0.00	0	0	0
TATA Hydro	3.60	51.71	373	0	447
Total	21.32	192.65			1627
REL					
1&2	12.34	122.73	525	457	500
Total	12.34	122.73			500
Cent Sect					
Share					4570
Total					4570
MS PG CL	Thermal	80.24	842.09		3865
	Thml+Gas	91.06	936.48		4335
	Hydro	24.90	167.12		1442
	Total	115.96	1103.60		5777
State Total		233.43	2328.09		14814

State Load Dispatch Center,Airoli (MSETCL)

Hourly Load Data As on 10/Sep/2014

TIME SR. NO.	MSPGCL GEN.			TOTAL	WIND	CPP / IPP	SOLAR	CS SHARE	CS RECPT	Mum.S CH.	Mum. NET EXCH.	MSEDCL DEM. MET	LOAD SHEDDI NG	MSEDCL DEM. WITH LS	TPCL + R -INFRA DEMAND	STATE DEMAND	FREQ. (Hz)
	THM	HY	GAS														
1	3310	606	448	4364	1232	2171	0	3163	3842	-611	-740	10906	77	10983	1942	12925	49.87
2	3276	938	448	4662	1196	2048	0	2849	3351	-488	-612	10658	50	10708	1787	12495	49.81
3	3125	992	448	4565	1134	2148	0	2661	3265	-460	-563	10549	50	10599	1705	12304	49.92
4	3214	1107	446	4767	1156	2393	0	2454	2784	-483	-504	10596	50	10646	1654	12300	49.89
5	3227	1160	446	4833	1185	2387	0	2657	2667	-491	-418	10654	50	10704	1659	12363	49.81
6	3176	746	444	4366	1155	2413	0	3563	4022	-480	-532	11424	52	11476	1769	13245	49.73
7	3182	1076	452	4710	1220	2388	3	3704	4983	-519	-795	12509	53	12562	1930	14492	49.80
8	3207	1240	452	4899	1246	2384	27	3934	4689	-611	-952	12321	53	12374	2101	14475	49.80
9	3291	1038	448	4777	1419	2504	55	4214	5124	-865	-1019	12910	52	12962	2360	15322	49.92
10	3276	743	443	4462	1616	2281	88	4541	5386	-1138	-1266	12618	50	12668	2743	15411	49.86
11	3244	772	447	4463	1439	2076	106	4404	5133	-1258	-1335	11895	50	11945	2942	14887	49.88
12	3219	710	448	4377	1465	2059	111	4119	4699	-1245	-1397	11314	52	11366	3004	14370	49.93
13	3292	784	451	4527	1488	2062	87	4201	4809	-1198	-1419	11554	104	11658	2999	14657	50.00
14	3369	591	456	4416	1433	2076	58	4142	4213	-1108	-1334	10869	54	10923	2856	13779	49.97
15	3410	969	456	4835	1447	2061	69	4399	4200	-1090	-1427	11235	53	11288	2843	14131	49.95
16	3371	881	449	4701	1438	2077	76	4449	4380	-1113	-1360	11365	51	11416	2819	14235	49.93
17	3490	820	450	4760	1336	2050	46	4451	4383	-1231	-1379	11246	51	11297	2826	14123	49.97
18	3517	842	449	4808	1263	2048	15	4270	4516	-1226	-1378	11323	54	11377	2800	14177	49.94
19	3425	1370	450	5245	1146	1971	0	4429	4816	-999	-1051	12178	54	12232	2774	15006	49.96
20	3475	1710	458	5643	1207	2209	0	4824	4988	-1011	-1063	13035	54	13089	2793	15882	49.99
21	3503	1666	458	5627	1149	2311	0	4638	4710	-903	-1008	12840	51	12891	2692	15583	49.98
22	3507	1417	457	5381	792	2300	0	4494	4533	-840	-927	12130	51	12181	2461	14642	49.99
23	3496	1425	458	5379	599	2292	0	4415	4523	-874	-938	11903	51	11954	2301	14255	49.97
24	3633	1301	460	5394	619	2292	0	4140	4046	-743	-854	11530	51	11581	2168	13749	50.01
MUs	80.24	24.90	10.82	115.96	29.38	53.00	0.74	95.12	104.06	-20.99	-24.27	279.56	1.32	280.88	57.93	338.81	49.91

NOTE : ALL VALUES IN MW

Mumbai Sch./Net Exch is shown with reference to MSETCL System. (+) indicates Mum. to MSETCL and (-) indicates MSETCL to Mum. Mumbai Schedule is calculated for MSETCL periphery (taking 4% loss for import & 4.85% MSETCL loss # Without Applying Load Diversity Factor

State Load Dispatch Center,Airoli (MSETCL)
Details of Generating Unit Outages/Trippings for 10/Sep/2014

Position as on 6.30 Hrs of 11/Sep/2014

Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE							
Parli Unit 3	210	13/02/2013	23.50		Continued.	Water Shortage	
Bhusawal Unit 4	500	06/08/2014	13.56		Continued.	converted to AOH from 7/08/14	15/09/2014
FORCED OUTAGE							
Dabhol 1B	230	28/05/2013	22.02		Continued.	Gas shortage.	
Dabhol 3A	230	06/06/2013	08.28		Continued.	Gas Shortage	
Dabhol 2A	230	06/06/2013	09.10		Continued.	Gas Shortage	
Dabhol 1X	290	27/06/2013	21.46		Continued.	Gas Shortage	
Dabhol 1A	230	27/06/2013	21.47		Continued.	Gas Shortage	
Dabhol 2X	290	15/07/2013	15.09		Continued.	Gas Shortage	
Dabhol 2B	230	08/08/2013	15.03		Continued.	Gas Shortage	
Dabhol 3X	290	29/12/2013	05.47		Continued.	Gas Shortage	
Dabhol 3B	230	29/12/2013	06.14		Continued.	Gas Shortage	
Tata Trombay 8	250	09/01/2014	22.54		Continued.	Emergency H/T,Fire at turbine track.	
CPP WPCL U-1	135	30/01/2014	12.45		Continued.	turbine vibration	
CPP WPCL U-2	135	18/02/2014	00.02		Continued.	Ash Conveying problem	
CPP Dhariwal	300	28/05/2014	02.27		Continued.	PA Fan Vibration Problem. (U-1).	
Koradi Unit 5	200	17/06/2014	11.53		Continued.	Coal Shortage	
Parli Unit 4	210	29/06/2014	10.19		Continued.	Water Shortage	
CPP IPL U-2	270	23/08/2014	23.15		Continued.	Coal Shortage.	
Chandrapur Unit 1	210	28/08/2014	07.15		Continued.	BLR T/L.	
CPP Adani U-3	660	29/08/2014	17.31	10/09/2014	23.34	Billing issues between Adani and MSEDCL.	
CPP Adani U-2	660	29/08/2014	22.12		Continued.	Billing issues between Adani and MSEDCL.	
Uran Unit 8	108	04/09/2014	19.33		Continued.	Gas Shortage	
Khaparkheda Unit 1	210	05/09/2014	10.17	10/09/2014	12.30	coal shortage	
Bhusawal Unit 2	210	07/09/2014	13.08		Continued.	Flame Failure.	
CPP VIPL U-2	300	07/09/2014	13.48		Continued.	Coal bunkering problem.	
CPP Adani U1	660	08/09/2014	03.35		Continued.	BLR T/L.	
Nasik Unit 4	210	08/09/2014	14.20	10/09/2014	20.43	PA Fan problem.	
Bhusawal Unit 3	210	08/09/2014	22.10		Continued.	BLR T/L.	
Chandrapur Unit 5	500	09/09/2014	05.15		Continued.	Critical coal stock & maint.Work.	
Koyna ST-IV 1	250	09/09/2014	21.40	10/09/2014	01.15	Safety bolt rupture fault.	
Koradi Unit 6	210	10/09/2014	17.53		Continued.	ID Fan Prob.	

State Load Dispatch Center,Airoli (MSETCL)
Details of Generating Unit Outages/Trippings for 10/Sep/2014

Position as on 6.30 Hrs of 11/Sep/2014

Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
CPP Adani U-3	660	11/09/2014	05.26		Continued.	Super Heater Stay Line Leakage.	
Uran Unit 5	108	11/09/2014	06.34		Continued.	Genreator Prot.	

State Load Dispatch Center, Airoli (MSETCL)
Details of Line outages/Trippings for 10/Sep/2014

Position as on 6.30 Hrs of 11/Sep/2014

Name of Line	Tripped Date	Tripped Time	Synchronise d Date	Synchronise d Time	Reason of Outage
InterState					
Voltage Level : 400KV			Outage Type PLANNED OUTAGE		
Padgha -Tarapur - I	10/09/2014	09.47	10/09/2014	19.54	Insulator Replacement Work.
Voltage Level : 400KV			Outage Type HAND TRIPPED		
Dabhol-Nagothane - II	19/08/2014	13.54		Continued.	Over Voltage.
New Koyna-Dabhol Ckt.I	25/08/2014	01.25		Continued.	Over Voltage.
Kolhapur - Mapusa - I	03/09/2014	20.08	10/09/2014	09.31	Over Voltage
Kolhapur-Solapur(PGCIL)-I	05/09/2014	19.04		Continued.	over voltage
Akola - Thaptitanda	06/09/2014	22.28		Continued.	over voltage
Dhule-Sar'Sarovar - I	09/09/2014	13.39	10/09/2014	10.42	Over Voltage.
Kolhapur-Mapusa-II	10/09/2014	18.11		Continued.	Over Voltage.
Dhule-Sar'Sarovar - I	10/09/2014	23.10		Continued.	Over Voltage.
Voltage Level : 400KV			Outage Type TRIPPED		
Akola - Wardha (PG) - II	08/09/2014	18.01		Continued.	Over Voltage.
IntraState					
Voltage Level : 400KV			Outage Type PLANNED OUTAGE		
400/200 KV 500 MVA ICT - II Main Bay(414) @ Deepnagar	26/08/2014	12.50		Continued.	Bus CT Errection Work.
Warora- Tirora -II	09/09/2014	12.22	10/09/2014	18.10	Jumper Work.
Padgha - Babaleshwar - II	10/09/2014	07.20	10/09/2014	12.52	Main1 Main2 Prot. Operated.
400/220 KV 500 MVA ICT - I @ Lamboti	10/09/2014	08.15		Continued.	Commissioning Work of Repaired B Phase.
Talegaon PG - Aurangabad - II	10/09/2014	14.01	10/09/2014	14.37	Taking Reactor Out at Talegaon End.
Main Bus - I @ Lamboti.	10/09/2014	14.13	10/09/2014	15.43	Shifting of Spare ICT Jumper B-Ph to R ph.
Talegaon PG - Aurangabad - II	10/09/2014	20.09	10/09/2014	20.29	Taking Reactor I/S at Talegaon End.
Voltage Level : 220KV			Outage Type PLANNED OUTAGE		
Talange - Sawantwadi - II.	09/09/2014	16.48	10/09/2014	18.19	Dist Prot.
Pedambe-Newkoyna	10/09/2014	08.20	10/09/2014	16.55	Bay P.M.Work
Talangade-Mudshingi-II	10/09/2014	08.45	10/09/2014	20.36	New Distance Relay.
Kalyani-Baramati Agro	10/09/2014	10.00	10/09/2014	17.30	To Replace OLD Disc. Insulator.
220KV Bus Coupler @ Khaperkheda	10/09/2014	10.00	10/09/2014	13.54	CRM Measurement of Tan Delta of CT.
Main Bus At Barshi	10/09/2014	10.05	10/09/2014	14.05	Q.M.Work.
Main Bus at Malinagar	10/09/2014	10.20	10/09/2014	18.30	Bye Pass work Of the Bus Sectionaliser isolater.
TBC @ Khaparkheda	10/09/2014	12.32	10/09/2014	16.58	CRM Measurement of Tan Delta of CT.
Main Bus I at Pandharpur	10/09/2014	12.50	10/09/2014	17.15	Q.M.work
Borivali (MSEB)- Borivali (T)	10/09/2014	14.49	10/09/2014	16.02	To Check B-Ph GIS Link Box.
Voltage Level : 400KV			Outage Type HAND TRIPPED		
Bhusawal- Aurangabad	04/09/2014	12.11		Continued.	Over Voltage
Karad-Jaigad I	09/09/2014	17.39	10/09/2014	08.49	Over Voltage.
Lonikand- Koyna Stage IV	09/09/2014	22.13	10/09/2014	07.17	Over Voltage.

State Load Dispatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 10/Sep/2014

Position as on 6.30 Hrs of 11/Sep/2014

Name of Line	Tripped Date	Tripped Time	Synchronise d Date	Synchronise d Time	Reason of Outage
Padgha - Nagothane- II	10/09/2014	00.12	10/09/2014	08.33	Over Voltage.
Karad - Kolhapur - II	10/09/2014	17.02		Continued.	Over Voltage.
Karad-Jaigad I	10/09/2014	18.07		Continued.	Over Voltage.
Lonikand- Koyna Stage IV	11/09/2014	06.32		Continued.	Over Voltage.
Voltage Level : 400KV			Outage Type TRIPPED		
Karad - Kolhapur - II	04/09/2014	03.37	10/09/2014	09.26	Over Voltage
Warora-Chandrapur- II, Ckt II	07/09/2014	16.57		Continued.	Over Voltage.
Deepnagar-Tapitatanda	08/09/2014	01.57		Continued.	Over Voltage.
Dabhol-Nagothne	10/09/2014	11.26		Continued.	Distance Prot.
Voltage Level : 220KV			Outage Type TRIPPED		
Aurangabad-Jalna-II	02/07/2014	14.33		Continued.	Heavy Rain @ Aurangabad S/S load Trimming Schem Operated,Ckt Charged from Chikhli End @ 15.15 Hrs DT 2.7.14.
220/100 KV,200MVA ICT - I at Padgha	18/07/2014	02.37		Continued.	Diff.Prot

State Load Dispatch Center,Airoli (MSETCL)

Details of On Line Capacity for 11/Sep/2014

Generating unit	Derated Capacity (MW)	OLC (MW)
Koradi		
Unit 5	200	0
Unit 6	210	0
Unit 7	210	160
	620	160
Bhusawal		
Unit 2	210	0
Unit 3	210	0
Unit 4	500	0
Unit 5	500	450
	1420	450
Parli		
Unit 3	210	0
Unit 4	210	0
Unit 5	210	160
Unit 6	250	210
Unit 7	250	200
	1130	570
Chandrapur		
Unit 1	210	0
Unit 2	210	110
Unit 3	210	80
Unit 4	210	80
Unit 5	500	0
Unit 6	500	250
Unit 7	500	280
	2340	800
Paras		
Unit 3	250	200
Unit 4	250	250
	500	450
Khaparkheda		
Unit 1	210	170
Unit 2	210	170
Unit 3	210	170
Unit 4	210	170
Unit 5	500	350
	1340	1030
Nasik		
Unit 3	210	162
Unit 4	210	162
Unit 5	210	172
	630	496
Uran		
All Units	852	465
	852	465
PENCH (MS)		
Pench (MS)	53	
	53	
Koyna		
Stage 1-2	600	600
Stage 4	1000	250
Stage 3	320	320
	1920	1170
Hydro		
KDPH	40	36
VTRNA	60	76

Generating unit	Derated Capacity (MW)	OLC (MW)
TILLARI	60	63
BHTGR/VEER	21	6
BHIRA T.R.	80	80
RNGR+BHTSA	20	0
BHANDARDRA	45	14
ELDARY	23	0
SMLHY PTN	12	0
GHATGHAR	250	0
	611	275
Wind		
MalharPeth	0	
Vankuswadi	0	
ATIT	0	
Kale	0	
Satara	0	
Shirala	0	
K Mahankal	0	
Supa	0	
Vita	0	
Dondaicha	0	
Sakri	0	
Nandurbar	0	
Khandke	0	
Khaparale	0	
	0	
CPP		
JSW JAIGAD	1200	1098
WARDHA	405	200
Adani	2640	617
Other CPPs	300	468
	4545	2383
SOLAR		
Total	0	
	0	
Tata		
Trombay 4	150	0
Trombay 5	500	500
Trombay 6	500	500
Trombay 7A	120	120
Trombay 7B	60	60
Trombay 8	250	0
TATA Hydro	444	447
	2024	1627
REL		
1&2	500	500
	500	500
Cent Sect		
Share	3455	4686
	3455	4686

	21940	15062
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