



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

**State Load Dispatch Center,
Airoli**

Daily system Report

for

09/Jan/2011

State Load Dispatch Center, Airoli (MSETCL)
Daily system Report for 09/Jan/2011 SUNDAY

I GENERATION (MUs)			II EXCHANGES (MUs)		
A) MSGENCO	Daily	Monthly	E) Central Sector	Daily	Monthly
1) Thermal	128.184	1134.163	1) Madhya Pradesh	40.743	357.083
2) Hydro	17.282	137.728	2) Gujrat	28.414	210.609
3) Gas	10.599	123.007	3) Goa	-5.564	-54.272
Total MSGENCO	156.065	1394.898	4) TAPS 1&2 (Inj.)	7.798	70.617
B) OTHERS			5) Pench (Excess)	-0.445	-4.512
1) RGPPL Gas	32.518	296.593	# Total Cent. Sector	70.946	579.525
2) Wind Generation	1.936	35.983	F) Other Exchanges		
3) CPP / IPP	24.081	206.807	1) With TPCL (Excess)	-1.611	-31.771
4) PENCH (MS)	0.445	4.512	G) Bilateral Power *		
C) TPCL & REL			1) MSEDCL Bilateral	15.974	132.938
1) TPCL Thermal	20.612	199.965	Include PX	0.000	0.000
2) TPCL Hydro	0.565	27.742	2) MUMBAI Bilateral	1.895	36.563
TOTAL TPCL	21.177	227.707	Include PX	0.074	-7.069
3) REL Thermal	12.698	113.824	3) MUMBAI Schedule	1.895	36.563
D) STATE			H) ENERGY CATERED (MUs)		
1) Thermal (A1+C1+C3)	161.494	1447.952	1) MSEDCL	284.380	2486.547
2) Hydro (A2+B3+C2)	18.292	169.982	2) TPCL	23.140	250.382
3) Gas (A3+B1)	43.117	419.600	3) REL	12.346	122.906
4) Wind (B2)	1.936	35.983	TOTAL STATE	319.866	2859.835
5) CPP (B3)	24.081	206.807			
TOTAL STATE	248.920	2280.324			

DETAILS OF MAHARASHTRA STATE PEAK DEMAND(MW)

PARTICULARS	A. Morning Peak at 11 Hrs	B. Evening Peak at 20 Hrs	C. Night Minimum at 2 Hrs
MSGENCO Thermal	5336	5505	5090
MSGENCO Hydro	1824	634	132
MSGENCO Gas	434	445	440
MSGENCO Total Generation	7594	6584	5662
Central Sector Receipt	3154	3294	2391
RGPPL	1375	1364	1320
WIND	71	67	96
CPP / IPP	1020	1023	942
Exchange with Mumbai	-118	-272	-5
MSEDCL DEMAND MET	13122	12107	10406
Load Shedding	1868	3115	0
MSEDCL DEMAND (INCL. LS)	14990	15222	10406
TPCL GENERATION	1018	1037	680
REL GENERATION	530	528	530
TPCL+REL DEMAND	1666	1837	1215
STATE DEMAND MET	14788	13944	11621
STATE DEMAND (INCL. LS)	16656	17059	11621
Frequency (Hz)	49.85	49.85	49.97
MSEDCL's Max Demand-Supply Gap (excluding UI, D.A.Power & Unsch.Hyd.Gen)			3215 MW AT 20.00 HRS
MSEDCL's Dem.-Supply Gap for day (excluding UI, D.A.Power & Unsch.Hyd.Gen)			36.17 MUS

FREQUENCY PARTICULARS

MAXIMUM FREQ.	MINIMUM FREQ.	AVERAGE FREQ.	FREQ. BELOW 49.2 Hz
50.47 Hz at 16.04 Hrs	49.4 Hz at 08.50 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 09/Jan/2011

Generating unit	Generation				OLC (MW)
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)	
Koradi					
Unit 1	0.00	11.85	0	0	0
Unit 2	0.00	8.44	0	0	0
Unit 3	0.00	12.29	0	0	0
Unit 4	0.00	9.33	0	0	0
Unit 5	2.95	29.59	148	112	120
Unit 6	0.00	0.00	0	0	0
Unit 7	1.32	26.02	180	0	0
	4.27	97.50			120
Bhusawal					
Unit 1	0.00	0.00	0	0	0
Unit 2	4.52	28.40	195	170	200
Unit 3	4.52	40.93	200	170	200
	9.04	69.34			400
Parli					
Unit 1	0.00	0.00	0	0	0
Unit 2	0.00	0.00	0	0	0
Unit 3	4.46	34.76	198	166	190
Unit 4	4.60	37.63	198	178	200
Unit 5	4.94	39.39	212	198	200
Unit 6	4.68	42.87	250	0	200
Unit 7	5.42	39.84	236	216	225
	24.10	194.49			1015
Chandrapur					
Unit 1	3.83	33.50	170	147	160
Unit 2	3.55	29.05	164	124	155
Unit 3	4.75	38.78	205	184	200
Unit 4	4.59	36.46	198	180	200
Unit 5	11.50	88.84	495	440	475
Unit 6	11.25	86.84	490	430	475
Unit 7	11.11	89.06	485	431	475
	50.57	402.52			2140
Paras					
Unit 2	0.00	0.00	0	0	0
Unit 3	5.16	43.68	235	186	230
Unit 4	5.21	43.26	234	202	230
	10.37	86.94			460
Khaparkheda					
Unit 1	4.94	43.02	215	180	210
Unit 2	4.49	42.13	205	116	210
Unit 3	4.94	43.89	212	193	210
Unit 4	0.00	12.53	0	0	0
	14.36	141.56			630
Nasik					
Unit 1	2.18	18.63	99	82	90
Unit 2	0.00	15.53	0	0	0
Unit 3	4.36	33.62	195	170	185
Unit 4	4.60	34.93	205	146	205
Unit 5	4.33	39.11	197	151	205
	15.47	141.82			685
Koyna					
Stage 1-2	3.10	29.54	465	35	530
Stage 4	6.88	45.87	888	0	250
Stage 3	2.12	16.79	240	0	320
	12.10	92.19			1100
Koyna 12&4 Total	9.99	75.40			780

Generating unit	Generation				OLC (MW)
	Daily (Mus)	Monthly (Mus)	Max (MW)	Min (MW)	
Uran					
All Units	10.60	123.01	464	422	430
	10.60	123.01			430
Hydro					
KDPH	0.00	1.26	0	0	0
VTRNA	1.14	11.36	61	0	60
TILLARI	0.38	3.40	60	0	60
BHTGR/VEER	0.50	3.50	21	21	22
BHIRA T.R.	0.14	1.56	71	0	80
RNGR+BHTSA	0.38	3.28	16	16	15
BHANDARDRA	0.00	0.00	0	0	0
ELDARY	0.00	0.00	0	0	0
SMLHY_PTN	0.92	8.14	45	35	12
GHATGHAR	1.71	13.04	250	0	0
	5.18	45.54			249
PENCH (MS)					
Pench (MS)	0.44	4.51	47	0	
	0.44	4.51			
Wind					
MalharPeth	0.10	1.40			
Vankuswadi	0.22	3.88			
ATIT	0.03	0.64			
Kale	0.06	1.22			
Satara	0.10	2.55			
Shirala	0.11	1.51			
K Mahankal	0.10	2.03			
Supa	0.12	1.01			
Vita	0.51	6.63			
Dondaicha	0.21	7.61			
Sakri	0.02	1.26			
Nandurbar	0.04	0.65			
Khandke	0.18	3.39			
Khaparale	0.12	2.22			
	1.94	35.98			
CPP					
TOTAL CPP	24.08	206.81			
	24.08	206.81			
Dabhol					
RGPPPL	32.52	296.59	1381	1317	1450
	32.52	296.59			1450
Tata					
Trombay 4	0.00	0.00	0	0	0
Trombay 5	10.54	87.48	490	275	490
Trombay 6	0.00	22.73	0	0	0
Trombay 7A	3.02	26.90	131	120	120
Trombay 7B	1.64	14.76	69	68	60
Trombay 8	5.42	48.10	251	150	250
TATA Hydro	0.56	27.74	103	0	447
	21.18	227.71			1367
REL					
1&2	12.70	113.82	530	528	500
	12.70	113.82			500
Cent Sect					
Share					3374
					3374
MS PG CL	Thermal	128.18	1134.16		5450
	Thml+Gas	138.78	1257.17		5880
	Hydro	17.28	137.73		1349
	Total	156.06	1394.90		7229
State Total	248.92	2280.32			13920

State Load Dispatch Center, Airoli (MSETCL)

Hourly Load Data As on 09/Jan/2011

TIME SR. NO.	MSPGCL GEN.			TOTAL	RGPPL	WIND	CPP / IPP	CS SHARE	CS RECPT	Mum SCH.	Mum NET EXCH.	MSEDCL DEMAND MET	# LOAD SHED.	MSEDCL DEMAND WITH LS	TPCL + REL DEMAND	STATE DEM. WITH LS	FREQ. (Hz)
	THM	HY	GAS														
1	5114	167	440	5721	1317	68	970	3070	2409	-55	-52	10433	0	10433	1306	11739	49.81
2	5090	132	440	5662	1320	96	942	2887	2391	-7	-5	10406	0	10406	1215	11621	49.97
3	5077	112	438	5627	1320	123	956	2818	2686	18	22	10734	0	10734	1144	11878	50.01
4	5204	116	433	5753	1332	123	956	2819	2328	18	33	10525	0	10525	1120	11645	50.12
5	5241	112	433	5786	1331	142	947	2819	2890	18	32	11128	0	11128	1122	12250	50.00
6	5405	132	440	5977	1329	161	973	2788	3118	14	40	11598	0	11598	1169	12767	50.00
7	5413	132	452	5997	1330	152	1023	2814	3393	141	150	12065	742	12807	1249	14056	50.04
8	5441	344	453	6238	1355	146	1010	2818	3725	136	156	12655	1564	14219	1312	15531	49.89
9	5383	1203	449	7035	1332	117	1023	2877	3537	-9	19	13089	1733	14822	1448	16270	49.74
10	5371	1815	437	7623	1371	92	1020	3033	2613	-59	-41	12704	1796	14500	1587	16087	49.77
11	5336	1824	434	7594	1375	71	1020	3257	3154	-147	-118	13122	1868	14990	1666	16656	49.85
12	5268	1757	427	7452	1374	70	1027	3275	3155	-173	-142	12962	1920	14882	1675	16557	49.78
13	5305	1562	428	7295	1373	46	1028	3387	3367	-198	-191	12944	1913	14857	1649	16506	49.72
14	5323	1475	424	7222	1372	41	1027	3290	3296	-98	-114	12870	1744	14614	1573	16187	49.87
15	5310	1391	422	7123	1370	29	1026	3111	2800	-47	-65	12309	1870	14179	1523	15702	49.82
16	5338	1334	435	7107	1369	19	1031	2959	2579	-21	-36	12095	2033	14128	1496	15624	49.90
17	5312	826	437	6575	1367	10	1040	2959	2889	-21	-28	11853	2231	14084	1489	15573	49.94
18	5379	566	442	6387	1366	22	1024	3011	2974	-73	-67	11706	2240	13946	1529	15475	49.91
19	5422	831	448	6701	1366	44	1024	3017	3195	-223	-221	12156	2853	15009	1747	16756	49.90
20	5505	634	445	6584	1364	67	1023	3194	3294	-272	-272	12107	3115	15222	1837	17059	49.85
21	5507	288	458	6253	1365	75	1031	3195	3293	-272	-254	11808	3107	14915	1775	16690	49.81
22	5554	173	458	6185	1367	76	1029	3149	2795	-223	-183	11296	0	11296	1741	13037	49.94
23	5454	178	462	6094	1372	79	979	2878	2844	-232	-196	11198	0	11198	1641	12839	49.92
24	5432	178	464	6074	1381	67	952	2626	2221	-111	-78	10617	0	10617	1473	12090	50.19
MUs	128.18	17.28	10.60	156.06	32.52	1.94	24.08	72.05	70.95	-1.90	-1.61	284.38	30.73	315.11	35.49	350.60	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 for export)
Without Applying Load Diversity Factor

State Load Dispatch Center, Airoli (MSETCL)
Details of Generating Unit Outages/Trippings for 09/Jan/2011

Position as on 6.30 Hrs of 10/Jan/2011

Name of Generating Unit	Capacity	Tripped Date	Tripped Time	Sync.Date	Sync. Time	Reason of Outage	Expected Date
PLANNED OUTAGE							
Cent_Sect KARPR1	220	01/07/2008	00:10		Continued.	COH(En-Mass Coolant Clanel Replacement)	30/01/2011
Parli Unit 2	30	11/12/2010	23.51		Continued.	Annual Overhaul.	
Koradi Unit 6	210	26/12/2010	09.23		Continued.	Annual Overhaul.	27/01/2011
Khaparkheda Unit 4	210	03/01/2011	15.26		Continued.	Capital Overhaul.	07/02/2011
Dabhol 3B	230	04/01/2011	16:44		Continued.	Rehabilitation work.	05/03/2011
Tata Trombay 6	500	07/01/2011	00.04		Continued.	Capital overhaul.	31/01/2011
Uran Unit A0	120	07/01/2011	05.57		Continued.	Main T/F oil leakage attending work.	14/01/2011
Koyna ST-IV 1	250	08/01/2011	22.00	09/01/2011	03.30	To Attend Doun Stream Seal Servomoter Oil Leakage.	
FORCED OUTAGE							
Uran Unit 2	60	04/10/2008	19.00		Continued.	Gas Restriction	
Uran Unit 4	60	01/04/2009	00:00		Continued.	Gas Restriction	
Uran Unit 3	60	16/06/2010	19.52		Continued.	R.M.Work.	
Paras Unit 2	55	16/11/2010	23.00		Continued.	Boiler tube validity expired.	
Parli Unit 1	30	15/12/2010	04.31		Continued.	W/Dn.	
Bhusawal Unit 1	58	15/12/2010	10.40		Continued.	Coal Mill problem.	
Koyna Unit 3	75	06/01/2011	15.45		Continued.	Tripped on mechanical protection	15/01/2011
Uran Unit 6	108	06/01/2011	23.15		Continued.	Tube leakage.	14/01/2011
Koradi Unit 7	210	07/01/2011	12.48	09/01/2011	13.49	Water Valve leakage	
Koradi Unit 3	105	07/01/2011	21.14		Continued.	Withdrawn	
Koradi Unit 4	115	07/01/2011	22.06		Continued.	Withdrawn	
Koradi Unit 2	105	07/01/2011	22.11		Continued.	Withdrawn	
Koradi Unit 1	105	07/01/2011	22.28		Continued.	Withdrawn	
Nasik Unit 2	125	08/01/2011	10.10		Continued.	Boiler Tube Leakage.	11/01/2011
Parli Unit 6	250	08/01/2011	18.42	09/01/2011	03.14	High Drum Level.	
Cent_Sect NTPC(V-7)	500	09/01/2011	01.12		Continued.	Boiler Tube Leakage.	11/01/2011

State Load Dispatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 09/Jan/2011

Position as on 6.30 Hrs of 10/Jan/2011

Name of Line	Tripped Date	Tripped Time	Synchronise d Date	Synchronise d Time	Reason of Outage
InterState					
Voltage Level : 400KV			Outage Type HAND TRIPPED		
Akola - Wardha - I	05/01/2011	21.25		Continued.	Over Voltage.
Dhule-Sar'Sarovar - I	06/01/2011	23.30	09/01/2011	07.30	Over Voltage
Dhule-Sar'Sarovar - II	08/01/2011	23.54		Continued.	Over Voltage.
Kolhapur - Mapusa - I	09/01/2011	00.01	09/01/2011	09.45	Over Voltage.
Kolhapur - Mapusa - I	09/01/2011	23.34		Continued.	Over Voltage.
IntraState					
Voltage Level : 400KV			Outage Type PLANNED OUTAGE		
400/220 KV 315MVA ICT-II @ Karad	04/01/2011	19.38		Continued.	H.V.Side BKR Repl.Work taken on TBC.
New Koyna - Dabhol - II	09/01/2011	07.45	09/01/2011	18.02	Replacement of Insulator,Cold Washing & Hot Spot Attending.
Voltage Level : 220KV			Outage Type PLANNED OUTAGE		
Kalwa-Mahape	27/11/2010	15.17		Continued.	Stringing Work of Mumbai System.
220/100KV 125 MVA ICT-III @ Kalwa	14/12/2010	08.39		Continued.	For Augumentation from 125MVA to 200MVA.
Babaleshwar - Chalisgaon	15/12/2010	13.42		Continued.	Conversion of S/C to D/C(Six Month Outage.)Up to 09.05.2011.
220/132 KV 150MVA ICT-II @ Dhule	21/12/2010	13.34		Continued.	Replacement by 200 MVA ICT UPTO 20.01.11
220/132 KV 100 MVA ICT-II @ Babaleshwar	25/12/2010	12:15		Continued.	Augmentation by 200MVA ICT
220/132 KV 100 MVA ICT-II @ Bhusawal	02/01/2011	08.58		Continued.	Replacement of 100 MVA By 200 MVA ICT(Upto 23.01.2011).
Girivali - Parli - III	06/01/2011	09.10		Continued.	Replacement of Aux.and line isolator.
Dhule - Dhule - I	06/01/2011	10.05		Continued.	Line Isolator Replacement Work.
220/100 KV125 MVA ICT-III @ Trombay	06/01/2011	12.03		Continued.	Augmentation by New 200 MVA ICT up to 20.03.2011.
Bus PT - II at Nasik GCR	07/01/2011	06.56	09/01/2011	10:30	P.T.Replacement work
Nasik - Ghatghar	07/01/2011	09.35	09/01/2011	10:40	Bus PT replacement,taken on TBC
Jambhual - Pal-I	07/01/2011	14.52		Continued.	Stringing work of 220KV Anandnagar LILO work
220/33KV 100MVA T/F-II at Aarey	08/01/2011	02.17		Continued.	Work on LV side
Bhoisor - Borivali	09/01/2011	09.20	09/01/2011	13.28	Hot Spot Attending & Tand Measurment.
Kolhapur-Sawantwadi	09/01/2011	11.56		Continued.	Taken on TBC TO Attend Bus A R Ph Insulator Flashour.
Voltage Level : 132KV			Outage Type PLANNED OUTAGE		
Bhandara - Madgi - II	07/01/2011	09.48	09/01/2011	18.00	Earthwire Replacement Work.
Giravali-Latur	09/01/2011	09.21	09/01/2011	13.39	Q.M.Work.
Voltage Level : 400KV			Outage Type FORCED OUTAGE		
Koyna IV - Jejuri	09/01/2011	22.55		Continued.	To Attend Sparking on B Ph Wave trap @ Stage IV End.
Voltage Level : 220KV			Outage Type FORCED OUTAGE		
Khargar-Topworth	08/01/2011	23.07	09/01/2011	09.00	CB Compressor Problem.
Voltage Level : 400KV			Outage Type HAND TRIPPED		
400/11.5KV 90 MVA STN T/F- V @ 400 KV Chandrapur	12/12/2010	08.00		Continued.	To Attend Oil Leakage

State Load Dispatch Center,Airoli (MSETCL)
Details of Line outages/Trippings for 09/Jan/2011

Position as on 6.30 Hrs of 10/Jan/2011

Name of Line	Tripped Date	Tripped Time	Synchronise d Date	Synchronise d Time	Reason of Outage
Bhusawal- Aurangabad	08/01/2011	20.52	09/01/2011	04.49	Over Voltage.
Bhusawal- Aurangabad	09/01/2011	21.06	10/01/2011	06.00	Over Voltage.
Voltage Level : 220KV Outage Type HAND TRIPPED					
Lote - Dasturi	07/01/2011	21.01		Continued.	B phase Crossarm Bend at Loc.No.97
Voltage Level : 132KV Outage Type HAND TRIPPED					
Buldana-Motala	05/01/2011	18.45		Continued.	To Control Chikhali ICT Over Loading.
Dhule-Dondaicha - I	09/01/2011	11.35		Continued.	Outage on 150 MVA ICT @ Dhule.
Dhule - Dondaicha - II	09/01/2011	11.45		Continued.	Outage on 150 MVA ICT @ Dhule.
Voltage Level : 100KV Outage Type HAND TRIPPED					
Kalwa - Salsette - II	07/01/2011	09.22		Continued.	From Kalwa End
Voltage Level : 400KV Outage Type TRIPPED					
400/220 KV 315 MVA ICT-I @ Parly.	05/01/2011	19.47		Continued.	LV side on TBC.M.BKR PDR problem
Voltage Level : 220KV Outage Type TRIPPED					
220/132KV 100 MVA ICT-I @Padegaon	26/12/2010	13.30		Continued.	ICT on TBC for Main Breaker Replacement.
220 KV Bus Coupler @ Talangde	08/01/2011	18.48		Continued.	Bus A Fault @ Talangade
Jejuri-Phursungi	09/01/2011	04.31	09/01/2011	04.56	Dist.Prot.
220/33 KV 100 MVA ICT IV at Jamde	09/01/2011	12.42		Continued.	Tripped.Declared Fail.
220/33KV 50 MVA T/F @ Aurangabad	09/01/2011	14.10	09/01/2011	14.19	Over Current & Earth Fault Protection.
220/33 KV 25 MVA T/F @ Aurangabad	09/01/2011	14.10	09/01/2011	14.22	Feeder Fault.
Voltage Level : 132KV Outage Type TRIPPED					
Kannad - Kagzipura	09/01/2011	22.15		Continued.	Distance Protection Operated B Ph to N.

State Load Dispatch Center, Airoli (MSETCL)

Details of On Line Capacity for 10/Jan/2011

Generating unit	Derated Capacity (MW)	OLC (MW)	Generating unit	Derated Capacity (MW)	OLC (MW)
Koradi				852	430
Unit 1	105	0	Hydro		
Unit 2	105	0	KDPH	40	0
Unit 3	105	0	VTRNA	60	60
Unit 4	105	0	TILLARI	60	60
Unit 5	200	135	BHTGR/VEER	21	21
Unit 6	210	0	BHIRA T.R.	80	80
Unit 7	210	180	RNGR+BHTSA	20	16
	1040	315	BHANDARDRA	45	0
Bhusawal			ELDARY	23	0
Unit 1	58	0	SMLHY_PTN	12	11
Unit 2	210	200	GHATGHAR	250	0
Unit 3	210	200		611	248
	478	400	PENCH (MS)		
Parli			Pench (MS)	53	
Unit 1	30	0		53	
Unit 2	30	0	Wind		
Unit 3	210	180	MalharPeth	0	
Unit 4	210	190	Vankuswadi	0	
Unit 5	210	200	ATIT	0	
Unit 6	250	245	Kale	0	
Unit 7	250	220	Satara	0	
	1190	1035	Shirala	0	
Chandrapur			K Mahankal	0	
Unit 1	210	160	Supa	0	
Unit 2	210	150	Vita	0	
Unit 3	210	200	Dondaicha	0	
Unit 4	210	195	Sakri	0	
Unit 5	500	475	Nandurbar	0	
Unit 6	500	475	Khandke	0	
Unit 7	500	480	Khaparale	0	
	2340	2135		0	
Paras			CPP		
Unit 2	55	0	TOTAL CPP	0	
Unit 3	250	230		0	
Unit 4	250	230	Dabhol		
	555	460	RGPPL	960	1450
Khaparkheda				960	1450
Unit 1	210	210	Tata		
Unit 2	210	210	Trombay 4	150	0
Unit 3	210	210	Trombay 5	500	490
Unit 4	210	0	Trombay 6	500	0
	840	630	Trombay 7A	120	120
Nasik			Trombay 7B	60	60
Unit 1	120	81	Trombay 8	250	250
Unit 2	120	0	TATA Hydro	444	447
Unit 3	210	192		2024	1367
Unit 4	210	192	REL		
Unit 5	210	192	1&2	500	500
	870	657		500	500
Koyna			Cent Sect		
Stage 1-2	600	530	Share	3143	3227
Stage 4	1000	250		3143	3227
Stage 3	320	320			
	1920	1100			
Uran					
All Units	852	430			
				17376	13954