

# ***OPTCL***

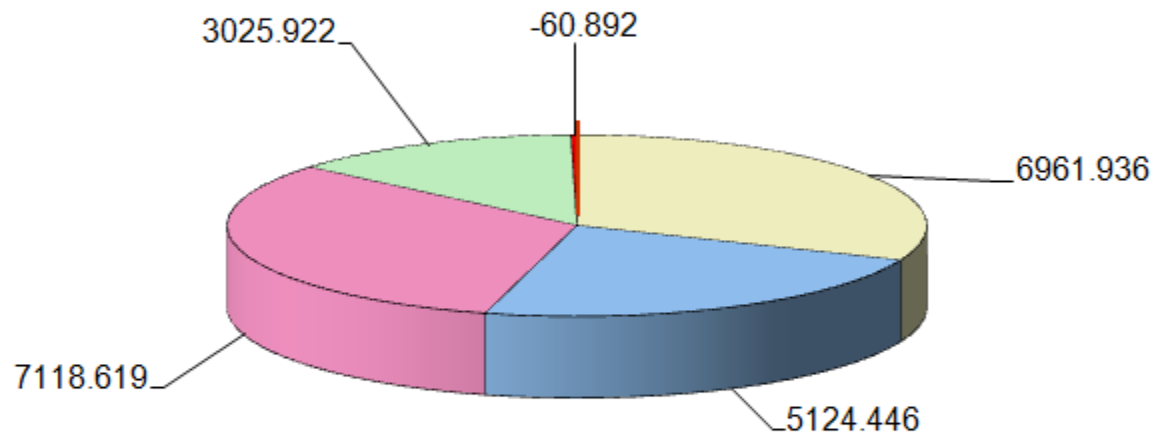


## **PERFORMANCE OF THE TRANSMISSION SYSTEM OF OPTCL FOR 2010-2011**

[This report is prepared in pursuance of Licence Condition 20.10 & Clause 13.7 of Appendix-4B of the OERC (Conduct of Business) Regulations, 2004]

## GRID DEMAND FOR THE YEAR 2010-11

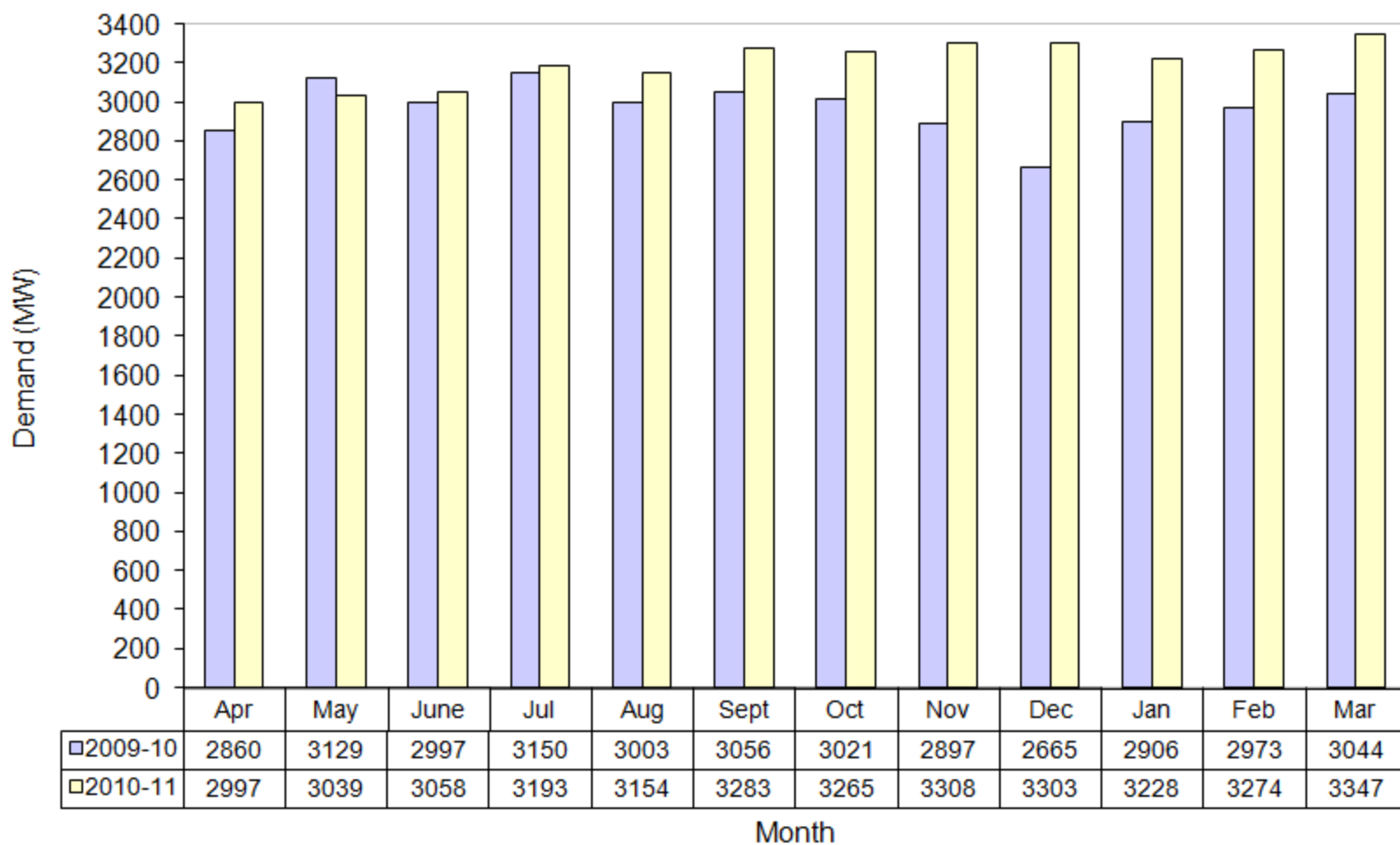
**[Total Drawal 22170.031 MU]**



Net EREB   Total Hydro   Total Thermal (OPGC + TTPS+IPP)   CPP   Net BankingPower+IEX

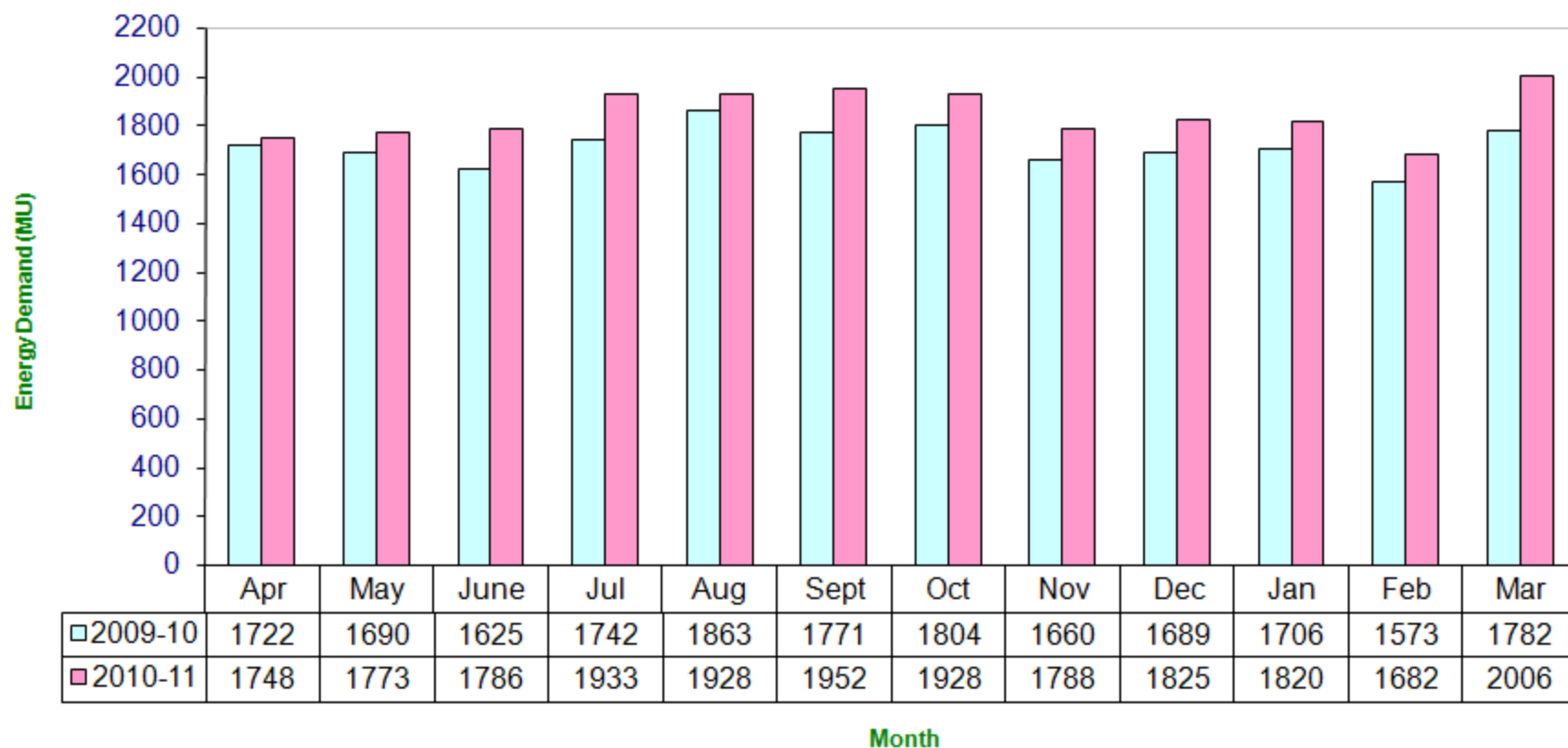
DAILY PEAK DEMAND (MW) EXCLUDING TRADING FOR THE YEAR 2010-11														
Day	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Max	Min
1	2787	2765	2931	2966	3048	3108	3134	2911	2897	2920	3145	3118	3145	2765
2	2892	2794	2897	2988	2992	3043	3018	2964	2822	2963	3111	2934	3111	2794
3	2819	2570	2942	3001	2967	2904	3101	3022	2820	3052	2906	3188	3188	2570
4	2853	2744	2928	2997	2997	3017	2993	3161	2886	3029	3092	3198	3198	2744
5	2674	2612	2768	2998	2971	2939	3153	2880	2912	3069	3120	3122	3153	2612
6	2895	2816	2838	3034	2926	2983	3002	3072	2851	3139	3237	3168	3237	2816
7	2810	2573	2760	3156	2740	2990	2913	2900	3032	3205	3073	3066	3205	2573
8	2805	2944	2803	3121	2854	3133	3132	2938	3022	2895	3113	3070	3133	2803
9	2810	2848	2654	3075	2895	3149	3201	2969	2991	3124	3090	3136	3201	2654
10	2830	2861	3031	3100	2708	3154	3065	3042	3028	3061	3130	3044	3154	2708
11	2869	2765	2758	2992	2779	3083	3265	3063	3134	2964	3182	3037	3265	2758
12	2954	2818	2936	3010	2934	2971	3111	2934	3046	3091	3230	3271	3271	2818
13	2941	2784	2575	2972	3016	3113	3176	3019	2988	3105	3182	3063	3182	2575
14	2997	2558	2844	3152	3154	3028	2952	3117	3077	2975	3154	3109	3154	2558
15	2845	2953	2922	3054	3001	3106	2841	3132	3102	3047	3185	2835	3185	2835
16	2990	2497	3008	3026	2834	3183	3129	3149	3163	2927	3110	3169	3183	2497
17	2873	2985	2819	2738	3006	3012	2806	3042	3012	2963	3274	3200	3274	2738
18	2804	2957	2919	3049	3078	3079	3061	3046	3028	3006	3170	3117	3170	2804
19	2849	3039	2857	3027	3077	3166	3021	3043	2903	3122	2858	3195	3195	2849
20	2898	2940	2953	3047	3079	3135	2931	3130	2994	3145	2856	3042	3145	2856
21	2964	2867	3043	2920	3069	3230	2927	2902	3115	3117	3094	3226	3230	2867
22	2907	2587	2825	2975	3050	3199	2744	2888	2944	3094	3042	3126	3199	2587
23	2763	2658	2609	2871	2942	3239	3203	2976	3061	3132	2942	3347	3347	2609
24	2891	2421	2852	2795	2978	3274	3203	2982	3076	3202	2840	3185	3274	2421
25	2762	2449	2768	2908	2940	3179	3202	3066	3050	3228	3186	3200	3228	2449
26	2778	2646	2862	2754	2914	3163	3216	2997	2957	3191	3095	3283	3283	2646
27	2868	2407	3052	3086	3095	3157	3098	3308	3087	3111	3046	3274	3308	2407
28	2744	2594	3058	2984	3141	3283	3168	2698	3120	3096	3171	3281	3283	2594
29	2832	2587	2953	3116	2925	3195	3196	2781	3303	3193		3289	3303	2587
30	2709	2812	2819	3190	3100	3189	3189	2698	2999	3175		3291	3291	2698
31		2970		3193	2972		3060		3163	3226		3339	3339	2970
<b>MAX</b>	<b>2997</b>	<b>3039</b>	<b>3058</b>	<b>3193</b>	<b>3154</b>	<b>3283</b>	<b>3265</b>	<b>3308</b>	<b>3303</b>	<b>3228</b>	<b>3274</b>	<b>3347</b>	<b>3347</b>	<b>2970</b>
<b>MIN</b>	<b>2674</b>	<b>2407</b>	<b>2575</b>	<b>2738</b>	<b>2708</b>	<b>2904</b>	<b>2744</b>	<b>2698</b>	<b>2820</b>	<b>2895</b>	<b>2840</b>	<b>2835</b>	<b>3111</b>	<b>2407</b>

# COMPARISON OF MONTHLY PEAK DEMAND (MW) EXCLUDING TRADING FOR THE YEAR ENDING 2009-10 & 2010-11

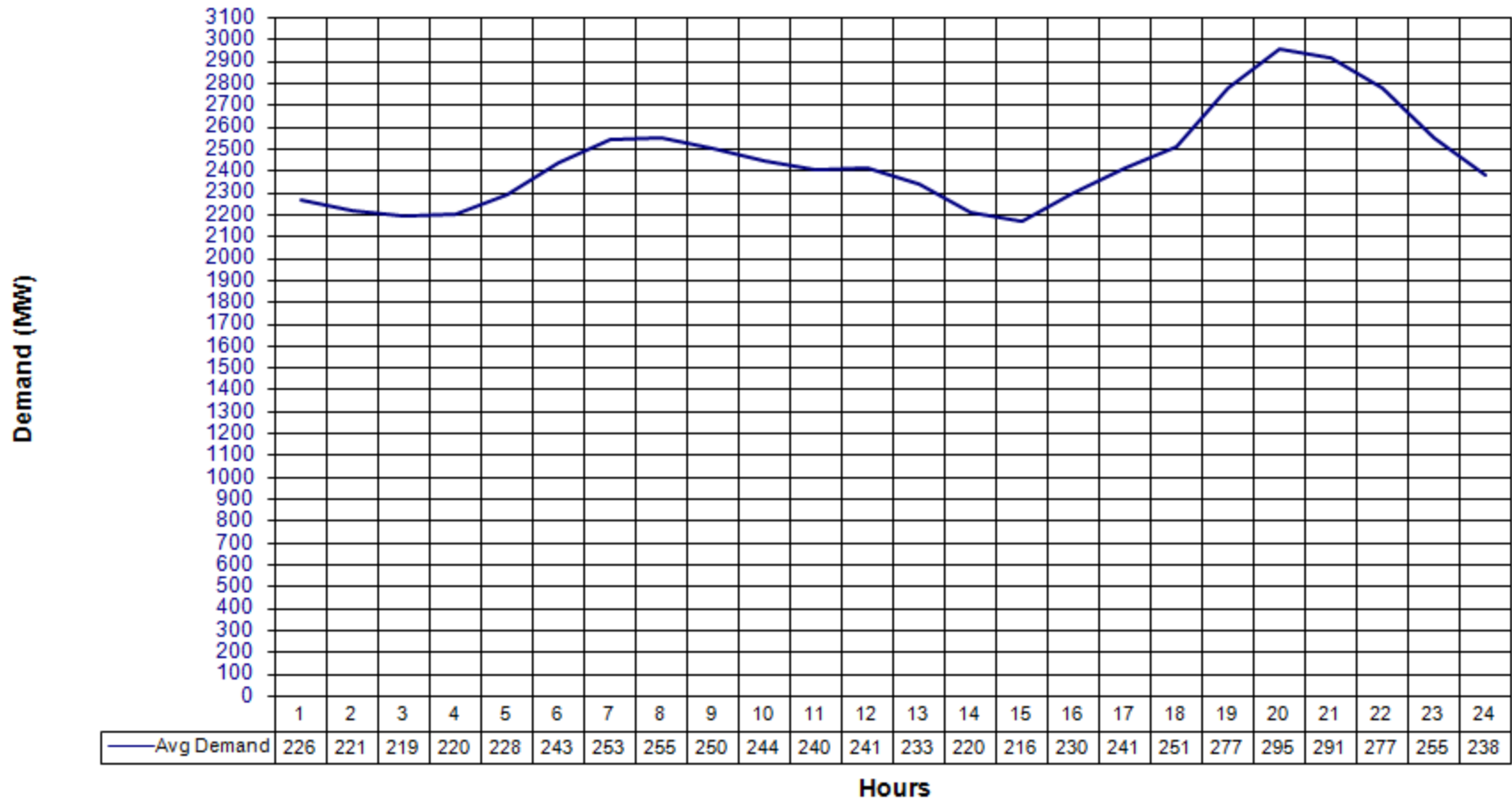


2009-10 2010-11

# COMPARISON OF MONTHLY ENERGY DEMAND (MU) EXCLUDING TRADING & RETURN BANKING POWER FOR THE YEAR ENDING 2009-10 & 2010-11

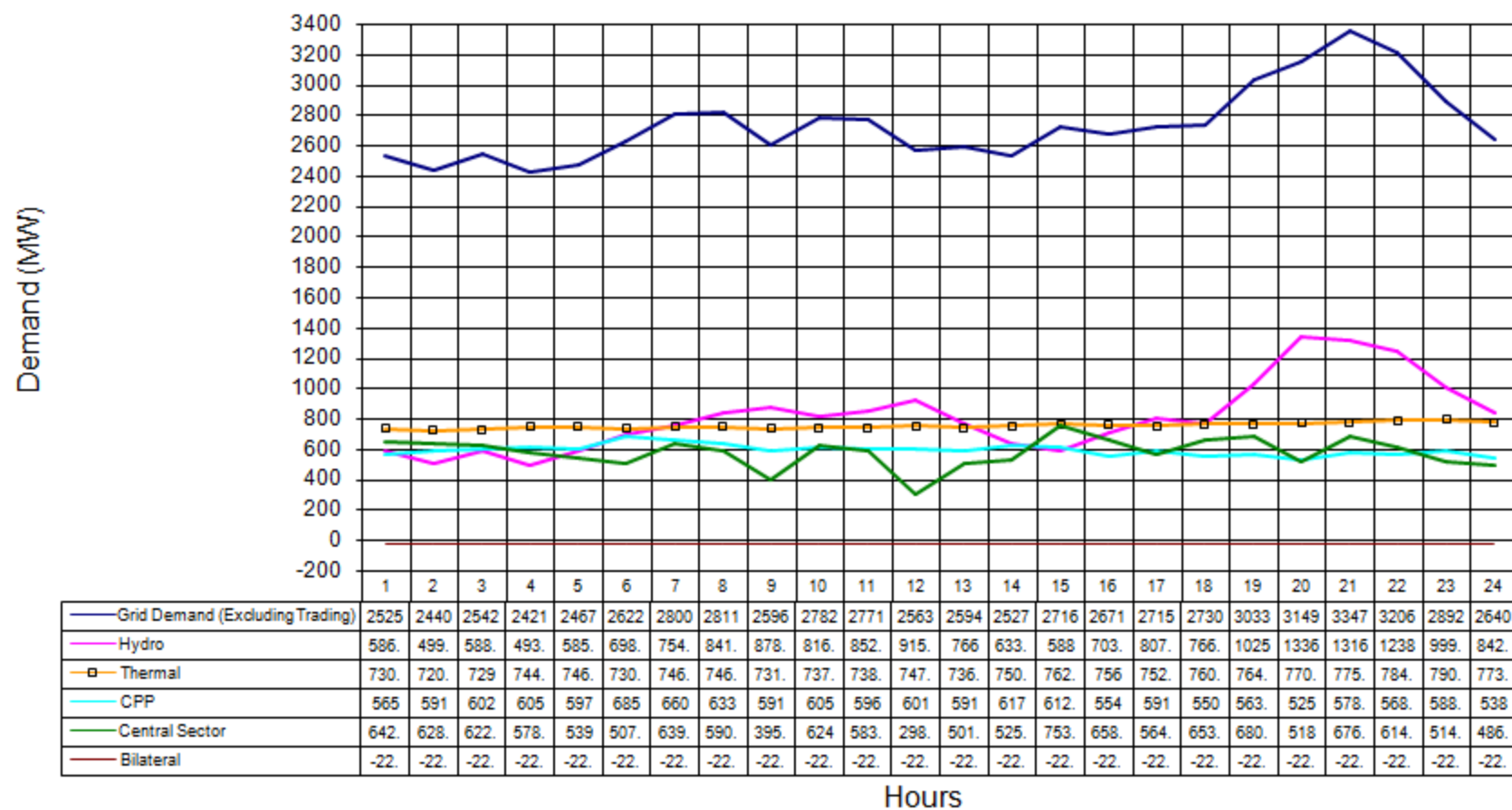


# DEMAND CURVE FOR HOURLY AVERAGE DEMAND EXCLUDING TRADING FOR YEAR ENDING MARCH 2011



Hourly Average Demand (Month wise)																								
Hours-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Apr-10	2422	2372	2331	2359	2438	2517	2462	2042	1984	1824	1963	2436	2460	2365	2339	2410	2270	1871	2164	2802	2814	2731	2626	2526
May-10	2270	2218	2190	2210	2251	2310	2315	2299	2223	2180	2214	2313	2305	2259	2246	2377	2356	2202	2359	2661	2631	2564	2450	2390
Jun-10	2390	2352	2326	2319	2365	2411	2454	2497	2482	2488	2425	2433	2384	2283	2304	2388	2424	2402	2536	2819	2838	2747	2634	2500
Jul-10	2402	2364	2322	2298	2369	2456	2530	2590	2567	2542	2485	2423	2352	2237	2224	2332	2440	2452	2684	2946	2964	2866	2684	2531
Aug-10	2435	2388	2353	2352	2425	2442	2528	2533	2510	2493	2470	2444	2352	2266	2280	2377	2474	2483	2702	2926	2921	2842	2691	2564
Sep-10	2487	2425	2389	2401	2459	2556	2607	2595	2548	2579	2560	2510	2470	2340	2328	2446	2560	2667	2974	3090	3045	2940	2737	2639
Oct-10	2332	2255	2236	2232	2302	2429	2527	2541	2472	2454	2369	2379	2300	2175	2182	2307	2436	2742	3036	3024	2957	2814	2618	2453
Nov-10	2067	2022	2014	2038	2178	2403	2555	2575	2504	2426	2357	2310	2189	2034	2005	2184	2365	2755	2963	2927	2858	2659	2349	2126
Dec-10	1878	1849	1833	1845	1987	2253	2522	2663	2629	2537	2441	2340	2197	2004	1908	2106	2337	2767	3000	2968	2887	2618	2212	1971
Jan-11	1925	1914	1902	1924	2054	2374	2672	2835	2780	2660	2568	2439	2289	2057	1922	2083	2330	2715	3031	3040	2943	2696	2343	2059
Feb-11	2153	2117	2111	2121	2228	2424	2597	2725	2672	2519	2455	2391	2303	2176	2055	2234	2418	2501	2895	3068	3009	2856	2523	2276
Mar-11	2402	2356	2325	2319	2394	2602	2681	2714	2643	2584	2564	2527	2425	2287	2237	2376	2519	2578	2980	3143	3074	2999	2744	2554
<b>Avg. Annual</b>	<b>2264</b>	<b>2219</b>	<b>2195</b>	<b>2201</b>	<b>2287</b>	<b>2431</b>	<b>2538</b>	<b>2551</b>	<b>2501</b>	<b>2440</b>	<b>2406</b>	<b>2412</b>	<b>2336</b>	<b>2207</b>	<b>2169</b>	<b>2302</b>	<b>2411</b>	<b>2511</b>	<b>2777</b>	<b>2951</b>	<b>2912</b>	<b>2778</b>	<b>2551</b>	<b>2383</b>

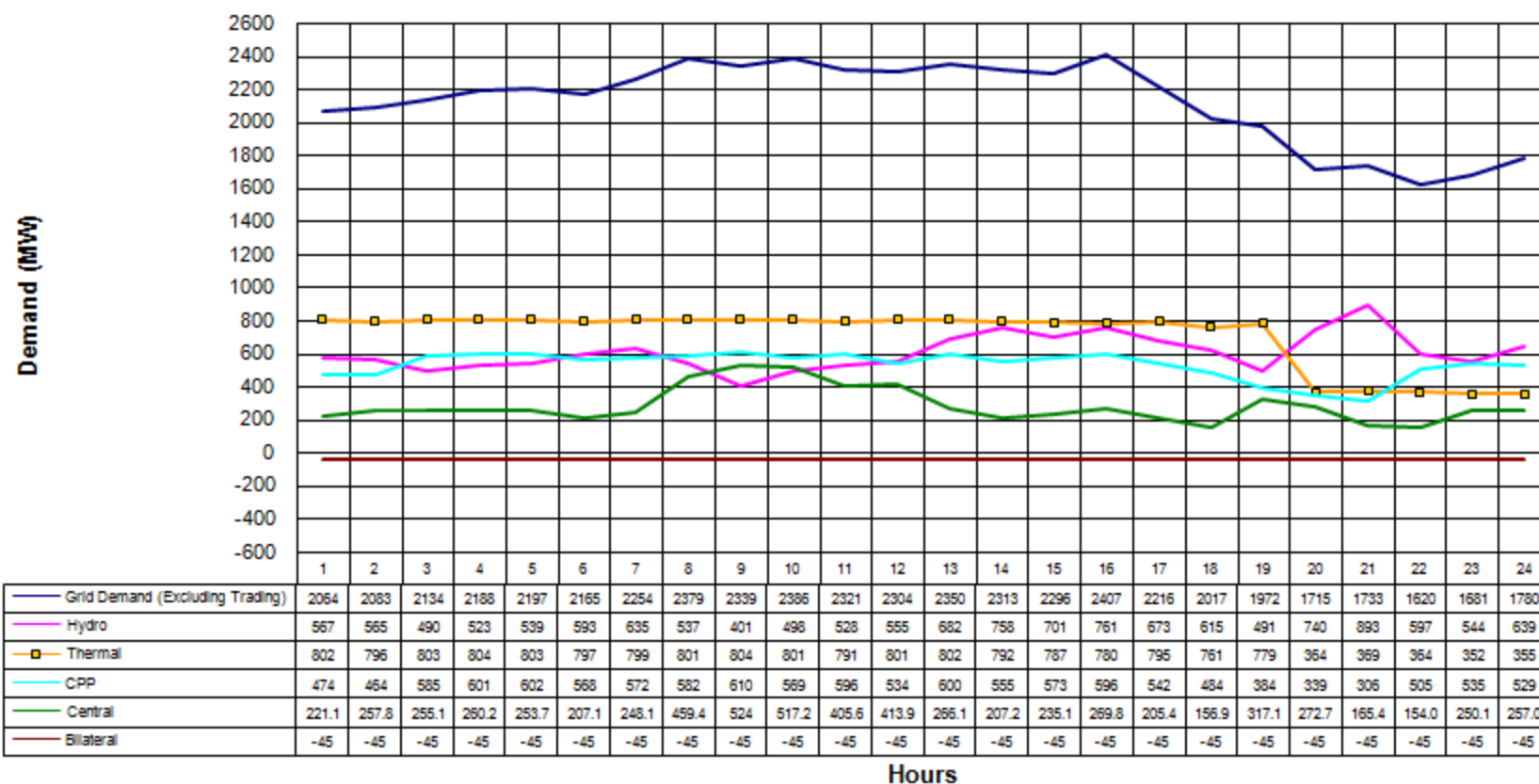
## HOURLY DEMAND CURVE FOR 23.03.2011 (MAX PEAK DEMAND OF THE YEAR (2010-11))



— Grid Demand (Excluding Trading)   
 — Hydro   
 —□— Thermal   
 — CPP   
 — Central Sector   
 — Bilateral



# HOURLY DEMAND CURVE FOR 27.05.2010 (MIN PEAK DEMAND OF THE YEAR 2010-11)



Grid Demand (Excluding Trading)   Hydro   Thermal   CPP   Central   Bilateral

1 <b>INSTALLED CAPACITY (AS ON 31.3.2011) ENERGY GENERATION / ENERGY DRAWAL BY OPTCL</b>			
	Installed capacity (MW)	Energy Generation (incl. Aux) (MU)	Energy Drawal by GRIDCO (MU)
<b>A. STATE SECTOR</b>			
OHPC(Hydro)*	2084.875	5023.168	5124.446
OPGC (Thermal)	420	3184.697	2842.599
TTPS (Thermal)	460	3796.645	3374.974
TTPS (UI-OD)			19.677
IPPs			881.369
CPP (Synchronised to OPTCL System)	-	4761.622	3025.922
<b>B. CENTRAL SECTOR</b>			
Orissa Share			
Hydro	199.00		
Thermal	884.60	-	7740.203
<b>C. Banking Power</b>			241.110
<b>D. Trading+IEX (Import)</b>			0.050
<b>D. TOTAL DRAWAL</b>			23250.350
<b>E. Trading+IEX (Export)</b>			64.112
<b>F. Banking Power Export</b>			237.940
<b>G. Export to EREB</b>			778.267
<b>H. Adjustment against UI</b>			0.000
<b>I. Net GRIDCO demand</b>			22170.031
Export to ICCL			0.067
Export to NALCO			174.940
* Includes Orissa share from Machhkund.			

<b>2 TRANSMISSION LINES AND SUBSTATIONS</b>				
		As on <u>31.03.2010</u>	Capacity Addition in <u>2010-2011</u>	As on <u>1.4.2011</u>
A. 400 kV line (ckt.km)		446.103	75.832	521.935
B. 220kV line (ckt.km)		5130.603	353.322	5483.925
C. 132kV line (ckt.km)		5121.799	104.970	5226.769
<i>N.B. 400kV line length has been corrected and the difference has been added to 220kV Category</i>				
D. Substations				
400 / 220 /132kV (nos.)		2	0	2
220/132/33kV (nos.)		15	1	16
220/33kV (nos.)		4	0	4
132/33/11kV (nos.)		61	1	62
132kV Switching Stations (OPTCL)		2	0	2
132kV LILO Switching Stations of Industries		11	0	11
<b>Total</b>		95	2	97
Note: 1. (The above data in (2) are received from TP and (O & M) branches of OPTCL system.)				
2. Revision in line length of 220kV Line during FY 2009-10 is due to exclusion of 220kV Budhipadar-Vedant DC = 2x16.750kms and correction of figures at some places				
3. Revision in no. of 132/33/11kV substations is due to addition of New Bolangir initially charged at 132kV				

3	<b><u>PERFORMANCE OF OPTCL DURING 2010 - 11</u></b>					
3 A.	<b><u>POWER SUPPLY SECURITY</u></b>					
3 A.1	Load Restriction due to non-availability of Generation / Failure of generating Stations					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	637.00	0.00	27.33	47.08	711.41
	Percentage(%)	29.17	0.00	1.24	2.18	8.12
* —→ Load restriction imposed in the State on rotation basis to curtail the demand.						
3 B.	<b><u>TRANSMISSION SECURITY</u></b>					
3 B.1	Load Restriction due to non-availability of Transmission capacity					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	0	0	0.00	0	0
	Percentage(%)	0.00	0.00	0.00	0.00	0.00
3 B.2	Rescheduling of Generation due to non- availability of Transmission capacity					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	0	0	0	0	0
	Percentage(%)	0	0	0	0	0

3 C	<b><u>OVERALL PERFORMANCE</u></b>					
3 C-1	<b><u>FREQUENCY</u></b>					
(i)	<b><u>Above 50.2 Hz</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	63.25	260.58	192.88	89.83	606.54
	Percentage(%)	2.90	11.80	8.74	4.16	6.92
(ii)	<b><u>Maximum continous period beyond 50.2 Hz</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	3.28	5.62	3.45	2.65	5.62
	Percentage(%)	0.15	0.25	0.16	0.12	0.06
(iii)	<b><u>Maximum Frequency occurrence</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	Hz	50.87	50.69	50.79	50.64	50.87
	Date/Time	<u>28.05.2010</u>	<u>05.07.2010</u>	<u>18.11.2010</u>	<u>21.02.2011</u>	<u>28.05.2010</u>
		8:21hr	04:02hr	03:11hr	05:04hr	8:21hr
(iv)	<b><u>Below 49.5 Hz</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	753.52	148	25.95	117.92	1045.74
	Percentage(%)	34.50	6.72	1.18	5.46	11.94
(v)	<b><u>Maxm. Continuous period below 49.5 Hz</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	(In Hrs)	22.25	1.58	0.25	0.75	22.25
	Percentage(%)	1.02	0.07	0.01	0.03	0.25
(vi)	<b><u>Lowest Frequency Occurrence</u></b>					
	Duration	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>	<u>Annual</u>
	Hz	48.56	48.68	48.92	48.87	48.56
	Date/Time	<u>16.04.2010</u>	<u>10.08.2010</u>	<u>27.12.2010</u>	<u>06.01.2011</u>	<u>16.04.2010</u>
		23:16 hr	00:09 hr	09:14hr	18:29hr	23:16 hr

### 3. C - 2 VOLTAGE PROFILE ( 2010-2011 )

#### MAXIMUM VOLTAGES OF MAJOR GRID SUB-STATIONS. ( 220kV )

Sl. No.	Name of the Sub-station	Quarter - 1			Quarter - 2			Quarter - 3			Quarter - 4			ANNUAL		
		Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.
1	Jaynagar	252	25.04.10	18:00	253	13.07.10	16:00	257	25.10.10	2:00	265	27.02.11	14:00	265	27.02.11	14:00
2	Duburi	230	07.04.10	1:00	235	25.07.10	1:00	239	12.11.10	4:00	237	02.01.11	1:00	239	12.11.10	4:00
3	Joda	232	14.06.10	19:00	230	17.09.10	16:00	233	07.12.10	2:00	240	21.02.11	12:00	240	21.02.11	12:00
4	Tarkera	227	04.05.10	10:00	227	12.07.10	6:00	234	27.12.10	1:00	237	06.02.11	15:00	237	06.02.11	15:00
5	Budhipadar	230	24.05.10	18:00	230	14.07.10	13:00	232	06.12.10	23:00	231	01.01.11	3:00	232	06.12.10	23:00
6	Balasore	227	07.05.10	18:00	230	07.07.10	14:00	234	17.12.10	1:00	232	08.01.11	1:00	234	17.12.10	1:00
7	Narendrapur	250	15.05.10	19:00	250	06.07.10	15:00	245	05.11.10	2:00	245	21.02.11	2:00	250	15.05.10	19:00
8	Chandaka	242	27.05.10	21:00	232	06.08.10	3:00	238	17.12.10	14:00	238	21.02.11	2:00	242	27.05.10	21:00
9	Bhanjanagar	242	27.05.10	21:00	234	12.08.10	10:00	239	22.12.10	2:00	238	02.01.11	1:00	242	27.05.10	21:00
10	Theruvali	246	30.04.10	18:00	248	12.07.10	13:00	256	01.11.10	24:00	255	04.01.11	1:00	256	01.11.10	24:00
11	Meramundali	225	25.05.10	4:00	230	31.07.10	15:00	231	10.12.10	3:00	234	21.02.11	4:00	234	21.02.11	4:00
12	Bidanasi	265	27.05.10	20:00	235	08.08.10	13:00	238	22.12.10	1:00	238	21.02.11	3:00	265	27.05.10	20:00
13	Katapalli	230	27.05.10	18:00	226	12.07.10	11:00	229	17.12.10	2:00	229	23.01.11	2:00	230	27.05.10	18:00
14	Bhadrak	227	26.05.10	22:00	230	19.09.10	14:00	230	06.10.10	13:00	225	01.01.11	3:00	230	19.09.10	14:00
15	Paradeep	230	27.06.10	11:00	225	02.07.10	13:00	230	03.11.10	12:00	230	07.01.11	14:00	230	27.06.10	11:00
16	Bolangir	-	-	-	229	18.09.10	13:00	232	06.10.10	14:00	230	11.02.11	19:00	232	06.10.10	14:00
17	Mendhasal	-	-	-	225	02.07.10	13:00	239	08.11.10	2:00	246	21.02.11	1:00	246	21.02.11	1:00

**MINIMUM VOLTAGES OF MAJOR GRID SUB-STATIONS. ( 220kV )**

Sl. No.	Name of the Sub-station	Quarter - 1			Quarter - 2			Quarter - 3			Quarter - 4			ANNUAL		
		Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.
1	Jaynagar	230	12.05.10	5:00	230	08.09.10	19:00	231	26.10.10	10:00	231	21.03.11	19:00	230	12.05.10	5:00
2	Duburi	207	13.05.10	20:00	204	09.09.10	19:00	215	09.11.10	19:00	206	24.03.11	19:00	204	09.09.10	19:00
3	Joda	210	17.05.10	20:00	210	28.08.10	19:00	215	09.10.10	18:00	215	12.01.11	18:00	210	17.05.10	20:00
4	Tarkera	212	04.05.10	1:00	215	27.08.10	19:00	217	11.10.10	18:00	217	19.03.11	21:00	212	04.05.10	1:00
5	Budhipadar	217	06.04.10	20:00	220	23.09.10	16:00	221	12.10.10	19:00	216	13.03.11	22:00	216	13.03.11	22:00
6	Balasore	195	01.04.10	19:00	192	15.09.10	19:00	204	02.10.10	19:00	200	09.03.11	19:00	192	15.09.10	19:00
7	Narendrapur	192	03.05.10	21:00	180	17.08.10	19:00	208	11.12.10	18:00	210	17.01.11	18:00	180	17.08.10	19:00
8	Chandaka	157	07.06.10	19:00	200	20.08.10	20:00	185	26.10.10	10:00	190	21.01.11	18:00	157	07.06.10	19:00
9	Bhanjanagar	172	07.06.10	19:00	204	09.09.10	19:00	212	27.10.10	18:00	210	29.03.11	19:00	172	07.06.10	19:00
10	Theruvali	215	16.05.10	19:00	220	08.09.10	19:00	220	08.12.10	18:00	221	22.03.11	21:00	215	16.05.10	19:00
11	Meramundali	203	10.06.10	16:00	212	10.07.10	21:00	217	02.11.10	15:00	215	28.03.11	21:00	203	10.06.10	16:00
12	Bidanasi	170	27.05.10	19:00	200	07.09.10	19:00	200	27.12.10	8:00	211	29.03.11	19:00	170	27.05.10	19:00
13	Katapalli	204	06.04.10	20:00	206	27.07.10	20:00	213	27.10.10	19:00	212	12.01.11	17:00	204	06.04.10	20:00
14	Bhadrak	180	30.04.10	12:00	180	15.09.10	19:00	185	04.10.10	19:00	180	23.02.11	19:00	180	30.04.10	12:00
15	Paradeep	195	05.06.10	11:00	200	17.07.10	19:00	210	19.11.10	18:00	190	22.03.11	18:00	190	22.03.11	18:00
16	Bolangir	-	-	-	208	28.09.10	20:00	210	05.10.10	19:00	199	21.03.11	20:00	199	21.03.11	20:00
17	Mendhasal	-	-	-	200	17.07.10	19:00	182	26.10.10	10:00	191	16.01.11	10:00	182	26.10.10	10:00



**MAXIMUM VOLTAGES OF MAJOR GRID SUB-STATIONS. ( 132kV )**

Sl. No.	Name of the Sub-station	Quarter - 1			Quarter - 2			Quarter - 3			Quarter - 4			ANNUAL		
		Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.
1	Cuttack	138	27.05.10	20:00	138	08.08.10	14:00	140	11.12.10	14:00	140	15.01.11	1:00	140	11.12.10	14:00
2	Puri	140	27.05.10	22:00	134	19.09.10	14:00	140	15.10.10	7:00	134	02.01.11	15:00	140	27.05.10	22:00
3	Khurda	140	11.04.10	9:00	138	24.08.10	18:00	138	15.10.10	10:00	136	02.01.11	18:00	140	11.04.10	9:00
4	Berhampur	146	24.06.10	2:00	143	21.08.10	18:00	145	05.10.10	11:00	142	20.03.11	14:00	146	24.06.10	2:00

**MINIMUM VOLTAGES OF MAJOR GRID SUB-STATIONS. ( 132kV )**

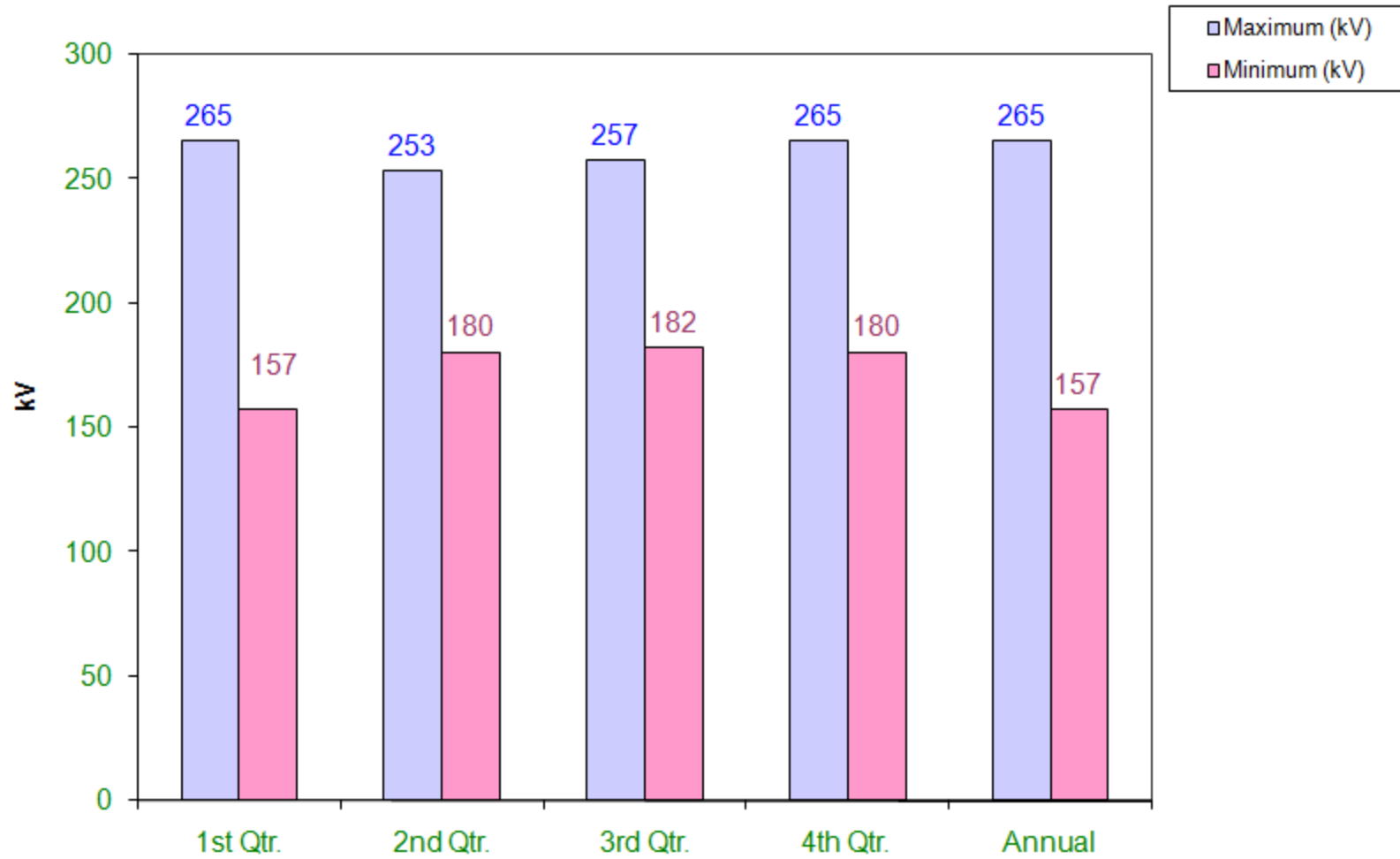
Sl. No.	Name of the Sub-station	Quarter - 1			Quarter - 2			Quarter - 3			Quarter - 4			ANNUAL		
		Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.	Voltage in kV	Date	Time in Hrs.
1	Cuttack	94	08.06.10	11:00	104	28.08.10	21:00	104	20.10.10	18:00	106	16.01.11	10:00	94	26.06.10	21:00
2	Puri	92	27.05.10	20:00	94	17.08.10	21:00	90	26.10.10	10:00	100	16.01.11	10:00	90	26.10.10	10:00
3	Khurda	92	26.06.10	21:00	92	06.08.10	19:00	95	13.11.10	18:00	96	17.01.11	20:00	92	0.00	0:00
4	Berhampur	102	01.04.10	21:00	111	05.07.10	20:00	116	26.10.10	10:00	114	17.01.11	18:00	102	0.00	0:00

Note:

1. The minimum bus voltages are based on the instantaneous log book readings and hence do not reflect the voltage profile of the concerned Grid S/s. Further, low voltages during contingency conditions are also recorded as minimum voltages.



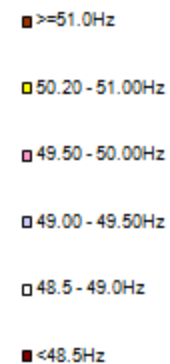
## OVERALL PERFORMANCE VOLTAGE AT 220kV



## OVERALL PERFORMANCE VOLTAGE AT 132 kV



## Percentage time occurrence

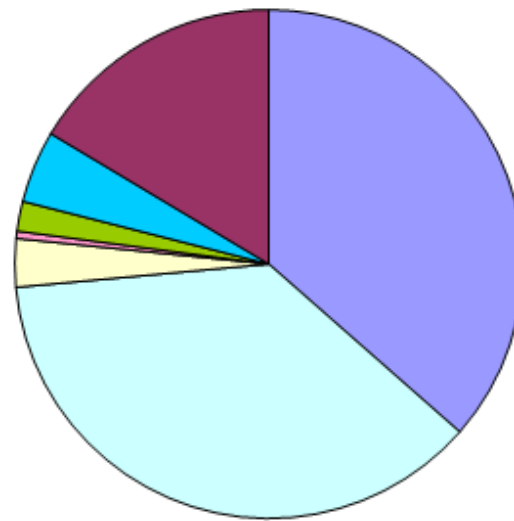


## Months

### INTERRUPTION DUE TO MAJOR INCIDENT

Incident	Duration of Interruption	No. of Interruption
Snapping of Jumper / Conductor / Earth wire	100:08:00	78
Insulator Failure	101:48:00	57
Bursting of CT / PT	8:25:00	15
Breaker Problem	1:17:00	7
System Disturbance	5:12:00	4
Failure of LA	12:39:00	17
Others	45:05:00	38
The duration of interruption indicated above is the sum total of interruptions occurred at different areas(S/s) during the year. However there was no total blackout experienced for the State during the year 2010-11.		

### INTERRUPTION (HRS) DUE TO MAJOR INCIDENT DURING 2010-11



- Snapping of Jumper / Conductor / Earth wire
- Insulator Failure
- Bursting of CT / PT
- Breaker Problem
- System Disturbance
- Failure of LA
- Others