



सत्यमेव जयते
Government of India

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

पूर्वी क्षेत्रीय विद्युत समिति

EASTERN REGIONAL POWER COMMITTEE

मासिक प्रगति रिपोर्ट

**PROGRESS REPORT FOR THE MONTH
OF**

अप्रैल – 2016

APRIL - 2016

पूर्वी क्षेत्रीय विद्युत समिति

Eastern Regional Power Committee

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Highlights of Eastern Regional Power System for April-2016

- The **Maximum Net Demand** met of Eastern Region (ER) during the month of **Apr, 2016** was **18607 MW** which is **7.27%** more than the **Apr, 2015** (17346 MW). Individual **Peak Demand (MW)** of majority constituents increased compared to the corresponding period of last year.
- The **Average Net Energy Consumption** per day in ER for the month of **Apt, 2016** was **385.58 MU** excluding export, which is **18.01%** more than the corresponding period of last year (326.73 MU).
- The **Average regional PLF of thermal units 64.53%** during the month, which is **1.02%** more than the corresponding period of the last year (63.51%).
- **NTPC of TSTPP** registered the highest **PLF of 95.87%**, followed by **IBTPS (Gridco) (94.47%) & CESC (Budge Budge TPS) (94.07%)** during the month of **Apr' 2016**.
- **Total Net generation** of ER was **20125 MW** against total **Effective Capacity of 35334 MW** (including that of Bhutan), and import from CPPs was **1490 MW** at the time of Regional peak (18607 MW on 12.04.16 at 21.00 hrs.)
- The **IEGC frequency** band has been revised w.e.f. 17.02.2014 and the system frequency in the new recommended band (49.9 Hz to 50.05 Hz) remained for **69.99%** of time during the period. **Average frequency** for the month was **49.97 Hz**. The instantaneous maximum and the minimum frequency touched were **50.32 Hz** and **49.64 Hz** respectively. The integrated (Fifteen minutes time block average) maximum and minimum frequency were **50.16 Hz** and **49.73 Hz** respectively (refer **Annexure-I**).
- The **Maximum Voltage** recorded **796KV** at New Ranchi **765 KV S/s** whereas the minimum voltage recorded **370 KV** at Jeypore **400 KV S/s** of Powergrid.
- The **Maximum Export from ER to outside region** was **4442 MW** on **13th Apr'16** at **13.00 hrs**. Total net energy export during the month was **1999.28 MU** (including transmission loss), which corresponds to **14.87%** of ex-bus total generation (13445 MU) of Eastern Region and **34.75%** more than the corresponding period of previous year.
- The import from CPPs/IPP was **1315.28 MU**, which is **72.59%** more than corresponding period of last year (**762.08 MU**).

- **The Total Energy Exchange between Nepal and Bihar (ER) was:**

Export / Import by Bihar	Apr, 2016(In MU)	Cum. (Apr'16-Apr'16) in MU
Export to NEPAL by Bihar (NBPDCCL)	179.00	179.00
Import from NEPAL by Bihar (NBPDCCL)	0.00	0.00
Net export to NEPAL by Bihar (NBPDCCL)	179.00	179.00

- **The total energy exchange between India & Bangladesh was:**

Export	During Apr, 2016(In MU)	Cum. (Apr'16-Apr'16) in MU
Exchange between India & Bangladesh	305.79	305.79

- **Export(+)/Import(-) Scenario:**

Region	Max. Export of Power ER (MW)	Max. Import of Power by ER (MW)	Net Export of Energy (MU)
NR	2537	226	867.38
WR	1545	1473	62.17
SR	1231	895	311.41
NER	1225	741	398.22

SALIENT FEATURES

(YEAR TO YEAR COMPARISON)

		Apr-16	APRIL-2015	CHANGE	% CHANGE
1)	Effective Capacity (end of the Month)				
	THERMAL (MW)	29155	25495	3660	14.36
	HYDRO (MW)	4686	4298	388	9
	DIESEL (MW)	7	0	7	0
	SOLAR (MW)	10	0	0	0
	TOTAL (MW)	33858	29793	4065	13.65
2)	Peak Demand (MW)	18861	17439	1422	8.16
3)	Peak Demand Met (MW)	18607	17346	1261	7.27
4)	Shortage (MW)	254	93	161	173.45
5)	% Shortage	1.35	0.53	0.82	154.39
6)	Average Energy Requirement Per Day (MU)	390.83	329.92	60.91	18.46
7)	Average Energy Availability Per Day (MU)	385.58	326.73	58.85	18.01
8)	Average Shortage Per Day (MU)	5.25	3.19	2.06	64.69
9)	% Shortage	1.34	0.97	0.37	38.58
10)	Net Generation for the Month				
	Thermal (MU)	12517.99	9589.25	2928.74	30.54
	Hydro (MU)	926.09	916.69	9.40	1.03
	Diesel (MU)	0.00	0.00	0.00	-
	Total (MU)	13445	10505.94	2939.40	27.98
11)	Generation at the Time of Max. Regional Demand Met (12-04-16 at 21.00 Hrs.)				
	Thermal (MW)	18180	14613	3567	24.41
	Hydro (MW)	1945	2661	-716	-26.91
	Diesel (MW)	0	0	0	-
	Total (MW)	20125	17274	2851	16.51
12)	Inter-Regional Energy Transfer				
	Export (MU)	1999.28	1483.73	515.55	34.75
	Import (MU)	0.00	0.00	0.00	-
	Net Exp.(+)/Net Imp.(-) (MU)	1999.2827	1483.73	515.55	34.75
13)	Import From Captive(MU)	1315.28	762.08	553.20	72.59
14)	Peak Inter Regional Power Transfer				
	Max Export (MW) on 13-04-16 at 13.00Hrs	4442	3466	976	28.17
	Max Import (MW) on 05-04-16 at 21.00Hrs	1486	665	821	123.53
	Max Net Export(+)/Import (-) (MW) on 00-01-00 at 00.00Hrs	4442	3466	976	28.17
15)	Maximum voltage recorded	796	NEW RANCHI		
16)	Minimum voltage recorded	370	JEYPORE		

\$ Excludes 1350 MW contribution from HEPs of Bhutan

* Includes contribution from HEP of Bhutan (Chukha, Kurichhu & Tala)

POWER SUPPLY POSITION FOR THE MONTH OF APRIL-2016

A) Net Average Energy Per Day

System	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSEB	67.31	71.16	3.85	5.41
JSEB	24.95	25.12	0.18	0.70
DVC	56.99	57.41	0.42	0.73
ODISHA	77.80	77.87	0.07	0.09
WBSEDCL	115.72	116.42	0.70	0.60
CESC	35.77	35.81	0.03	0.09
DPL	5.80	5.81	0.01	0.09
SIKKIM	1.22	1.23	0.01	0.47
REGION	385.58	390.83	5.25	1.34

B) Peak Demand in MW:

System	Demand Met (MW)	Requirement (MW)	Shortage (MW)	% Shortage
BSEB	3516	3540	23	0.65
JSEB	1192	1195	4	0.30
DVC	2518	2518	0	0.00
ODISHA	3965	3966	1	0.03
WBSEDCL	6038	6092	54	0.89
CESC	2055	2061	6	0.3
DPL	284	284	0	0.02
SIKKIM	84	84	0	0.00
REGION	18607	18861	254	1

➤ DIVERSITY FACTOR : 1.06

➤ Regional Peak Demand Met on 12-4-2016 at 21.00 hrs. at 49.96 Hz.

POWER SUPPLY POSITION IN EASTERN REGION DURING THE YEAR AS COMPARED TO PREVIOUS YEAR

A) Net Average Energy

Month	2015-16					2016-17				
	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	Shortage (%)	Avg. Freq. (HZ)	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	Shortage (%)	Avg. Freq. (HZ)
APRIL	326.76	329.95	3.19	0.97	49.96	385.58	390.83	5.25	1.34	49.97
MAY	346.36	349.67	3.31	0.95	49.95	-	-	-	-	-
JUNE	351.46	353.07	1.61	0.46	49.99	-	-	-	-	-
JULY	342.90	344.59	1.68	0.49	49.98	-	-	-	-	-
AUGUST	363.08	364.98	1.90	0.52	49.97	-	-	-	-	-
SEPTEMBER	369.71	372.07	2.36	0.63	49.93	-	-	-	-	-
OCTOBER	365.03	367.31	2.28	0.62	49.94	-	-	-	-	-
NOVEMBER	396.36	398.22	1.86	0.47	49.98	-	-	-	-	-
DECEMBER	314.80	316.71	1.91	0.60	49.98	-	-	-	-	-
JANUARY	323.38	327.05	3.67	1.12	49.97	-	-	-	-	-
FEBRUARY	340.98	344.66	3.68	1.07	49.99	-	-	-	-	-
MARCH	366.12	369.34	3.22	0.87	49.99	-	-	-	-	-

B) Peak in MW:

Month	2015-16					2016-17				
	Demand Met (MW)	Requirement (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)	Demand Met (MW)	Requirement (MW)	Shortage (MW)	Shortage (%)	Avg. Freq. (HZ)
APRIL	17346	17424	78	0.44	49.96	18607	18861	254	1.35	49.97
MAY	17602	17717	115	0.65	49.95	-	-	-	-	-
JUNE	17013	17195	182	1.06	49.99	-	-	-	-	-
JULY	16603	16662	58	0.35	49.98	-	-	-	-	-
AUGUST	17381	17839	458	2.57	49.97	-	-	-	-	-
SEPTEMBER	17632	18102	470	2.60	49.93	-	-	-	-	-
OCTOBER	18170	18908	738	3.90	49.94	-	-	-	-	-
NOVEMBER	17444	17516	71	0.41	49.98	-	-	-	-	-
DECEMBER	16993	17311	318	1.84	49.97	-	-	-	-	-
JANUARY	16692	16821	129	0.78	49.99	-	-	-	-	-
FEBRUARY	17125	17383	258	1.48	49.99	-	-	-	-	-
MARCH	18086	18278	192	1.05	49.99	-	-	-	-	-

ENTITLEMENT, DRAWAL SCHEDULE (EX-BUS) AND ACTUAL DRAWAL FROM CENTRAL SECTOR GENERATION.

	FROM	Cumulative from 1-Apr-16 to 31-Mar-17		BILATERAL [EXPORT(-) / IMPORT(+)] (EX-SELLER BUS)	NET DRAWAL SCHEDULE (AFTER LOSS)	ACTUAL DRAWAL FROM GRID	During April-16		BILATERAL [EXPORT(-) / IMPORT(+)] (EX-SELLER BUS)	NET DRAWAL SCHEDULE (AFTER LOSS)	ACTUAL DRAWAL FROM GRID
		ENTITLEMENT (EX-BUS)	DRAWAL SCHEDULE (EX-BUS)				ENTITLEMENT (EX-BUS)	DRAWAL SCHEDULE (EX-BUS)			
BSEB	FARAKKA STPS I	117.88	110.81					117.88	110.81		
	FARAKKA STPS III	121.19	122.74					121.19	122.74		
	KAHALGAON STPS I	206.60	200.42					206.60	200.42		
	KAHALGAON STPS II	49.53	62.20					49.53	62.20		
	TALCHER STPS I	269.58	265.67					269.58	265.67		
	BARH STPS II	333.85	333.85					333.85	333.85		
	RANGIT HEP	4.48	4.48					4.48	4.48		
	CHUKHA HEP	11.29	28.49					11.29	28.49		
	KIRUCHHU HEP	0.00	0.00					0.00	0.00		
	TALA HPS	24.59	11.48					24.59	11.48		
	TEESTA HEP	45.40	45.40					45.40	45.40		
TOTAL	1184.39	1185.53	627.07	1817.13	1877.38	1184.39	1185.53	627.07	1817.13	1877.38	
JSEB	FARAKKA STPS I	32.16	31.09					32.16	31.09		
	FARAKKA STPS III	23.06	23.22					23.06	23.22		
	KAHALGAON STPS I	15.80	16.99					15.80	16.99		
	KAHALGAON STPS II	12.42	23.36					12.42	23.36		
	TALCHER STPS I	50.12	51.41					50.12	51.41		
	BARH STPS II	32.47	30.08					32.47	30.08		
	RANGIT HEP	1.71	1.71					1.71	1.71		
	CHUKHA HEP	4.09	10.33					4.09	10.33		
	KIRUCHHU HEP	0.00	0.00					0.00	0.00		
	TALA HPS	11.05	5.16					11.05	5.16		
	TEESTA HEP	26.35	26.35					26.35	26.35		
TOTAL	209.23	219.70	173.51	418.98	489.18	209.23	219.70	173.51	418.98	489.18	
DVC	FARAKKA STPS I	2.82	2.76					2.82	2.76		
	FARAKKA STPS III	23.54	23.48					23.54	23.48		
	KAHALGAON STPS I	3.37	3.12					3.37	3.12		
	KAHALGAON STPS II	7.59	7.04					7.59	7.04		
	TALCHER STPS I	6.69	6.23					6.69	6.23		
	RANGIT HEP	1.28	1.28					1.28	1.28		
	CHUKHA HEP	3.95	9.97					3.95	9.97		
	KIRUCHHU HEP	0.00	0.00					0.00	0.00		
	TALA HPS	5.34	2.49					5.34	2.49		
	TEESTA HEP	18.45	18.45					18.45	18.45		
	TOTAL	73.03	74.82	-1270.29	-1115.46	-1143.72	73.03	74.82	-1270.29	-1115.46	-1143.72
GRIDCO	FARAKKA STPS I	53.24	52.83					53.24	52.83		
	FARAKKA STPS III	56.91	57.86					56.91	57.86		
	KAHALGAON STPS I	77.86	79.11					77.86	79.11		
	KAHALGAON STPS II	26.07	27.79					26.07	27.79		
	TALCHER STPS (Stg-I)	211.41	213.64					211.41	213.64		
	TALCHER STPS (Stg-II)	131.61	130.16					131.61	130.16		
	BARH STPS II	67.36	64.34					67.36	64.34		
	RANGIT HEP	0.00	0.00					0.00	0.00		
	CHUKHA HEP	5.79	14.61					5.79	14.61		
	KIRUCHHU HEP	0.00	0.00					0.00	0.00		
	TALA HPS	4.10	1.91					4.10	1.91		
TEESTA HEP	43.97	43.97					43.97	43.97			
TOTAL	678.31	686.22	51.17	714.34	741.56	678.31	686.22	51.17	714.34	741.56	
WBSECL	FARAKKA STPS I	118.08	54.97					118.08	54.97		
	FARAKKA STPS III	106.85	44.25					106.85	44.25		
	KAHALGAON STPS I	4.54	4.61					4.54	4.61		
	KAHALGAON STPS II	9.14	9.31					9.14	9.31		
	TALCHER STPS I	65.49	63.13					65.49	63.13		
	RANGIT HEP	3.63	3.63					3.63	3.63		
	CHUKHA HEP	12.14	30.63					12.14	30.63		
	KIRUCHHU HEP	3.36	0.00					3.36	0.00		
	TALA HPS	36.88	17.22					36.88	17.22		
	TEESTA HEP	51.20	51.20					51.20	51.20		
	TOTAL	411.31	278.94	1077.62	1339.99	1354.20	411.31	278.94	1077.62	1339.99	1354.20
SIKKIM	FARAKKA STPS I	6.12	2.29					6.12	2.29		
	FARAKKA STPS III	0.00	0.00					0.00	0.00		
	KAHALGAON STPS I	7.65	1.62					7.65	1.62		
	KAHALGAON STPS II	3.28	0.68					3.28	0.68		
	TALCHER STPS I	15.69	6.52					15.69	6.52		
	BARH STPS II	6.91	1.70					6.91	1.70		
	RANGIT HEP	1.71	1.71					1.71	1.71		
	CHUKHA HEP	0.85	2.13					0.85	2.13		
	KIRUCHHU HEP	0.00	0.00					0.00	0.00		
	TALA HPS	28.16	28.16					28.16	28.16		
	TOTAL	70.37	44.80	-4.78	38.00	33.00	70.37	44.80	-4.78	38.00	33.00
WR	FARAKKA STPS I	0.00	0.00					0.00	0.00		
	KAHALGAON STPS I	0.00	0.00					0.00	0.00		
	KAHALGAON STPS II	-270.34	-254.36					-270.34	-254.36		
	TALCHER STPS I	0.00	0.00					0.00	0.00		
	BARH STPS II	0.00	0.00					0.00	0.00		
	TOTAL	-270.34	-254.36	395.98	-197.69	-62.17	-270.34	-254.36	395.98	-197.69	-62.17
SR	FARAKKA STPS I	-4.84	-13.09					-4.84	-13.09		
	KAHALGAON STPS I	-3.46	-9.33					-3.46	-9.33		
	KAHALGAON STPS II	0.00	0.00					0.00	0.00		
	TALCHER STPS STG-I	-5.56	-5.78					-5.56	-5.78		
	TALCHER STPS STG-II	130.16	130.16					130.16	130.16		
	TOTAL	222.65	207.82	-966.34	-401.97	-311.41	116.31	101.96	-966.34	-401.97	-311.41
NR	FARAKKA STPS I	-30.31	-27.75					-30.31	-27.75		
	KAHALGAON STPS I	-155.18	-128.30					-155.18	-128.30		
	KAHALGAON STPS II	-569.39	-478.17					-569.39	-478.17		
	TALCHER STPS I	0.00	0.00					0.00	0.00		
	TALA HPS	-14.46	-6.75					-14.46	-6.75		
	TOTAL	-769.35	-640.98	-637.70	-1269.18	-867.38	-769.35	-640.98	-637.70	-1269.18	-867.38
WR+SR+NR (GRAND TOTAL)											
NER	FARAKKA STPS I	-12.43	-10.46					-12.43	-10.46		
	FARAKKA STPS III	-0.31	-0.77					-0.31	-0.77		
	KAHALGAON STPS I	-14.58	-10.96					-14.58	-10.96		
	KAHALGAON STPS II	-51.58	-32.05					-51.58	-32.05		
	TALCHER STPS I	-19.29	-16.26					-19.29	-16.26		
TOTAL	-217.19	-185.70	-44.86	-230.84	-323.40	-98.18	-70.51	14.33	53.51	-398.22	

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF APRIL-2016

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY	EFFECTIVE CAPACITY	Gross Energy Generation	Net Energy Generation	Cummulative Gross Energy Generation upto Current Month	Cummulative Net Energy Generation upto Current Month	
			(in MW)	(in MW)	in MU	in MU	(2016-17) in MU	(2016-17) in MU	
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	0.00	0.00	0.00	0.00	
		Muzaffarpur	220.00	220.00	104.26	93.83	104.26	93.83	
		Thermal Total	440.00	430.00	104.26	93.83	104.26	93.83	
	Hydro	Kosi	20.00	20.00	0.00	0.00	0.00	0.00	
		Dehri & others	24.90	24.90	0.00	0.00	0.00	0.00	
		Total Hydro	44.90	44.90	0.00	0.00	0.00	0.00	
	Total BIHAR			484.90	474.90	104.26	93.83	104.26	93.83
JHARKHAND									
TVNL	Thermal	TVNL	420.00	420.00	155.94	135.12	155.94	135.12	
JSEB	Thermal	Patratu	840.00	770.00	45.98	39.48	45.98	39.48	
	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.19	0.19	0.19	0.19	
	Total	970.00	900.00	46.18	39.67	46.18	39.67		
DVC	Thermal	Bokaro-B(1,2,3)	630.00	630.00	175.20	153.59	175.20	153.59	
		Chandrapura (1,2,3)	420.00	390.00	216.09	195.70	216.09	195.70	
		Chandrapura(U7 # 8)	500.00	500.00	329.01	299.96	329.01	299.96	
		Durgapur(3,4)	350.00	350.00	128.12	113.41	128.12	113.41	
		Mezla(1,2,3,4,5,6)	1340.00	1340.00	671.59	597.72	671.59	597.72	
		Mezla(U # 7,8)	1000.00	1000.00	514.60	486.45	514.60	486.45	
		Durgapur STPS (U#1,2)	1000.00	1000.00	564.56	535.95	564.56	535.95	
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	0.00	0.00	0.00	0.00	
	Koderma STPS (U#1,2)	1000.00	1000.00	485.55	458.13	485.55	458.13		
	Total Thermal			7440.00	7410.00	3084.71	2840.91	3084.71	2840.91
	Hydro	Maithon (U#1,2,3)	63.20	63.20	0.79	0.76	0.79	0.76	
		Panchet (U#1,2)	80.00	80.00	0.39	0.29	0.39	0.29	
		Tilaya (U#1,2)	4.00	4.00	0.00	0.00	0.00	0.00	
Hydro Total			147.20	147.20	1.18	1.05	1.18	1.05	
Total DVC			7587.20	7557.20	3085.89	2841.96	3085.89	2841.96	
WEST BENGAL									
WBPDCCL	Thermal	Bandel TPS	540.00	450.00	179.71	160.27	179.71	160.27	
		Santalidih TPS(U#5&6)	500.00	500.00	323.90	296.95	323.90	296.95	
		Kolaghat TPS	1260.00	1260.00	621.96	558.57	621.96	558.57	
		Bakreswar TPP	1050.00	1050.00	707.19	640.23	707.19	640.23	
		Sagardighi TPP	600.00	600.00	369.87	327.94	369.87	327.94	
		Thermal Total	3950.00	3860.00	2202.64	1983.96	2202.64	1983.96	
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	13.47	13.47	13.47	13.47	
		Ramam (4x12.73)	51.00	51.00	8.17	8.17	8.17	8.17	
		Teesta C.F. (3x3x7.3)	67.30	67.30	12.73	12.73	12.73	12.73	
		Small hydro	12.00	12.00	0.00	0.00	0.00	0.00	
		Total Hydro	1065.30	1065.30	104.88	104.88	104.88	104.88	
DPL	Thermal	DPPS (110+300+250 *)	660.00	660.00	298.01	268.55	298.01	268.55	

* Synchronised on 31.03.2014

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF APRIL-2016

ORGANI- SATION	TYPE	POWER STATION	INSTALLED	EFFECTIVE	Gross	Net	Cummulative Gross	Cummulative Net
			CAPACITY	CAPACITY	Energy	Energy	Energy Generation	Energy Generation
			(in MW)	(in MW)	in MU	in MU	upto Current Month (2016-17) in MU	upto Current Month (2016-17) in MU
CESC	Thermal	Titagarh (4x80)	240.00	240.00	74.00	67.04	74.00	67.04
		Southern (2x67.5)	135.00	135.00	69.30	63.08	69.30	63.08
		Budge-Budge (3x250)	750.00	750.00	507.95	468.07	507.95	468.07
		Total CESC	1125.00	1125.00	651.25	598.20	651.25	598.20
HEL	Thermal	HEL	800.00	800.00	342.17	307.03	342.17	307.03
		Total West Bengal	7612.30	7522.30	3598.94	3262.61	3598.94	3262.61
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	153.50	137.02	153.50	137.02
		Talcher-II	220.00	220.00	152.40	136.04	152.40	136.04
		Total Thermal	470.00	460.00	305.90	273.06	305.90	273.06
OPGC	Thermal	IB TPS	420.00	420.00	285.67	256.37	285.67	256.37
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	25.57	25.33	25.57	25.33
		Hirakud-II (Chiplima)	72.00	72.00	16.55	16.51	16.55	16.51
		Balimeta (6x60+2x75)	510.00	510.00	63.59	63.21	63.59	63.21
		Rengali (5x50)	250.00	250.00	30.04	29.95	30.04	29.95
		Upper Kolab (4x80)	320.00	320.00	79.89	79.56	79.89	79.56
		Indravati HPS (4x150)	600.00	600.00	94.29	94.05	94.29	94.05
		Mckd.(Odisha drawal)	57.38	57.38	19.71	19.71	19.71	19.71
		Total Hydro	2084.88	2084.88	329.64	328.32	329.64	328.32
		Total Odisha	2974.88	2964.88	635.54	601.38	635.54	601.38
(**) SIKKIM	Hydro	Mini Hydro	14.00	14.00	3.00	3.00	3.00	3.00
		^ Diesel	7.10	7.10				
NTPC	Thermal	FSTPP# I&II (3x200+2x500)	1600.00	1600.00	316.60	292.86	316.60	292.86
		FSTPP (U# 6)	500.00	500.00	275.70	255.03	275.70	255.03
		KhSTPP (4x210+3x500)	2340.00	2340.00	1444.55	1336.21	1444.55	1336.21
		TSTPP (2x500)	1000.00	1000.00	690.30	638.52	690.30	638.52
		BARH STPS II (2X660)	1320.00	1320.00	443.72	410.44	443.72	410.44
		Total NTPC	6760.00	6760.00	3170.87	2933.06	3170.87	2933.06
		Total Eastern Regional	34068.38	33858.38	14434.10	13296.37	14434.10	13296.37
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	14.25	14.25	14.25	14.25
		Teesta (3x170)	510.00	510.00	222.26	222.26	222.26	222.26
		TLDF (4x33+2x40)	212.00	212.00	60.83	60.83	60.83	60.83
Total NHPC	782.00	782.00	297.34	297.34	297.34	297.34		
IPP		MPL (U#1&2)	1050.00	1050.00	643.33	608.76	643.33	608.76
IPP		SSL (U#1,2,3 & 4) (4x600) *	2400.00	2400.00	730.61	670.48	730.61	670.48
		APNRL (U#1,2)	540.00	540.00	305.25	278.27	305.25	278.27
		GMR (3x350)	1050.00	1050.00	601.62	559.38	601.62	559.38
		JITPL (2X600)	1200.00	1200.00	725.99	671.54	725.99	671.54
		CHUZACHEN** (2x55)	110.00	110.00	29.18	29.12	29.18	29.12
		JORETHANG (2x48)	96.00	96.00	13.23	13.23	13.23	13.23
EASTERN REGIONAL		Total Thermal (E.R)	29365.00	29155.00	13654.20	12517.99	13654.20	12517.99
		Total Hydro (E.R)	4686.28	4686.28	778.64	777.12	778.64	777.12
		Total Diesel	7.10	7.10	0.00	0.00	0.00	0.00
		Total Solar	10.00	10.00	1.27	1.27	1.27	1.27
		TOTAL (E.R)	34068.38	33858.38	14434.10	13296.37	14434.10	13296.37
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	85.35	85.35	85.35	85.35
		Kurichu (4x15)	60.00	60.00	8.80	8.80	8.80	8.80
		TALA (6x170)	1020.00	1020.00	44.13	44.13	44.13	44.13
		DAGACHU (2x63)	126.00	126.00	10.69	10.69	10.69	10.69
		Grand Total	35634.38	35334.38	14583.07	13445	14583.07	13445.34

Santalidih U#1,2,3,4 (120*4=480MW) w.e.f 18.12.09, 4.10.09, 20.9.09 & 7.10.2008 respectively, DPL U#1,2 (2x30MW) w.e.f 01.04.11 & 01.04.11 & 3,4,5 (3x75 MW), Barauni U#4,5 (50*2=100MW) & Chandrapura U#4,5,6 (120*3=360MW) were decommissioned during 2010-11 & 2011-12 onwards.

\$ Barh U# CoD w.e.f 15.11.2014

** First Unit Synchronised on 19.04.2013

(*)-During this month, SEL has injected 205.72 MU to the Grid in addition to 341.96 MU bilateral exchange to ODISHA.

* CESC informed that N.Cossipore (130 MW)TPS ceased operation w.e.f 29.11.2014

* HEL U#1 COD on 06.06.14 & U#2 COD on 12.02.15

* JITPL U#1 COD on 28.01.15 & U#2 COD on 21.02.15

(**) Lachung HEP (3.00 MW), Mangley HEP (2.00 MW), Rongli HEP (5.00 MW), Meyong Chu HEP (4.00 MW) are working.

^ Gangtok diesel Power House (4.00 MW), Ranipool Diesel Power House (1.00 MW), Jali Power House, Stage-I (2.10 MW) are working

Mailthon HPS U#2 capacity increased from 20 MW to 23.2 MW.

GTs in West Bengal and DVC including Diesel in Sikkim are not operational since long. Accordingly, installed capacity of 195 MW (GT & Diesel) has been excluded from total installed capacity.

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF APRIL-2016

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	PLF of Current Month (%)	Cummulative Gross Energy Generation upto Current Month (2016-17) in MU	Cummulative PLF upto Current Month (%)	
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	0.00	0.00	0.00	0.00	
		Muzaffarpur	220.00	220.00	104.26	65.82	104.26	65.82	
		Thermal Total	440.00	430.00	104.26	33.68	104.26	33.68	
	Hydro	Kosi	20.00	20.00	0.00		0.00		
		Dehri & others	24.90	24.90	0.00		0.00		
		Total Hydro	44.90	44.90	0.00		0.00		
Total BIHAR			484.90	474.90	104.26		104.26		
JHARKHAND									
TVNL	Thermal	TVNL	420.00	420.00	155.94	51.57	155.94	51.57	
JSEB	Thermal	Patratu	840.00	770.00	45.98	8.29	45.98	8.29	
	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.19		0.19		
	Total		970.00	900.00	46.18		46.18		
DVC	Thermal	Bokaro-B(1,2,3)	630.00	630.00	175.20	38.62	175.20	38.62	
		Chandrapura (1,2,3)	420.00	390.00	216.09	76.95	216.09	76.95	
		Chandrapura(U7 # 8)	500.00	500.00	329.01	91.39	329.01	91.39	
		Durgapur(3,4)	350.00	350.00	128.12	50.84	128.12	50.84	
		Meziah(1,2,3,4,5,6)	1340.00	1340.00	671.59	69.61	671.59	69.61	
		Meziah(U # 7,8)	1000.00	1000.00	514.60	71.47	514.60	71.47	
		Total Thermal	7440.00	7410.00	3084.71	57.82	3084.71	57.82	
	Hydro	Maithon (U#1,2,3)	63.20	63.20	0.79		0.79		
		Panchet (U#1,2)	80.00	80.00	0.39		0.39		
		Tilaya (U#1,2)	4.00	4.00	0.00		0.00		
		Hydro Total	147.20	147.20	1.18		1.18		
		Total DVC			7587.20	7557.20	3085.89		3085.89
		WEST BENGAL							
WBPDC	Thermal	Bandei TPS	540.00	450.00	179.71	55.47	179.71	55.47	
		Santalidih TPS(U#5&6)	500.00	500.00	323.90	89.97	323.90	89.97	
		Kolaghat TPS	1260.00	1260.00	621.96	68.56	621.96	68.56	
		Bakreswar TPP	1050.00	1050.00	707.19	93.54	707.19	93.54	
		Sagardighi TPP	600.00	600.00	369.87	85.62	369.87	85.62	
		Thermal Total	3950.00	3860.00	2202.64	79.25	2202.64	79.25	
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	13.47		13.47		
		Ramam (4x12.73)	51.00	51.00	8.17		8.17		
		Teesta C.F. (3x3x7.3)	67.30	67.30	12.73		12.73		
		Small hydro	12.00	12.00	0.00		0.00		
		Purulia PSS (4x225)	900.00	900.00	70.51		70.51		
		Total Hydro	1065.30	1065.30	104.88		104.88		
		TLDP -(4x33+2x40)	212.00	212.00	60.83		60.83		
DPL	Thermal	DPPS (110+300+250 *)	660.00	660.00	298.01	62.71	298.01	62.71	

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF APRIL-2016

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	PLF of Current Month (%)	Cummulative Gross Energy Generation upto Current Month (2016-17) in MU	Cummulative PLF upto Current Month (%)
CESC	Thermal	Titagarh (4x80)	240.00	240.00	74.00	42.82	74.00	42.82
		Southern (2x67.5)	135.00	135.00	69.30	71.30	69.30	71.30
		Budge-Budge (3x250)	750.00	750.00	507.95	94.07	507.95	94.07
		Total CESC	1125.00	1125.00	651.25	80.40	651.25	80.40
HEL	Thermal		600.00	600.00	342.17	79.21	342.17	79.21
		Total West Bengal	7612.30	7522.30	3598.94		3598.94	
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	153.50	88.83	153.50	88.83
		Talcher-II	220.00	220.00	152.40	96.21	152.40	96.21
		Total Thermal	470.00	460.00	305.90	92.36	305.90	92.36
OPGC	Thermal	IB TPS	420.00	420.00	285.67	94.47	285.67	94.47
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	25.57		25.57	
		Hirakud-II (Chiplima)	72.00	72.00	16.55		16.55	
		Balimela (6x60+2x75)	510.00	510.00	63.59		63.59	
		Rengali (5x50)	250.00	250.00	30.04		30.04	
		Upper Kolab (4x80)	320.00	320.00	79.89		79.89	
		Indravati HPS (4x150)	600.00	600.00	94.29		94.29	
		Mckd.(Odisha drawal)	57.38	57.38	19.71		19.71	
		Total Hydro	2084.88	2084.88	329.64		329.64	
		Total Odisha	2974.88	2964.88	635.54		635.54	
		(**) SIKKIM	Hydro	Mini Hydro	14.00	14.00	3.00	
^ Diesel	7.10			7.10				
NTPC	Thermal	FSTPP# I&II (3x200+2x500)	1600.00	1600.00	316.60	27.48	316.60	27.48
		FSTPP (U# 6)	500.00	500.00	275.70	76.58	275.70	76.58
		KhSTPP (4x210+3x500)	2340.00	2340.00	1444.55	85.74	1444.55	85.74
		TSTPP (2x500)	1000.00	1000.00	690.30	95.87	690.30	95.87
		BARH STPS II (2X660)	1320.00	1320.00	443.72	46.69	443.72	46.69
		Total NTPC	6760.00	6760.00	3170.87	65.15	3170.87	65.15
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	14.25		14.25	
		Teesta (3x170)	510.00	510.00	222.26		222.26	
		TLDP -(4x33+2x40)	212.00	212.00	60.83		60.83	
		Total NHPC	782.00	782.00	297.34		297.34	
IPP	Thermal	MPL (U#1&2)	1050.00	1050.00	643.33	85.10	643.33	85.10
		SSL (U#1,2,3 & 4) (4x600) *	2400.00	2400.00	730.61	42.28	730.61	42.28
		APNRL (U#1,2)	540.00	540.00	305.25	78.51	305.25	78.51
		GMR (3x350)	1050.00	1050.00	601.62	79.58	601.62	79.58
		JITPL (2X600)	1200.00	1200.00	725.99	84.03	725.99	84.03
		CHUZACHEN** (2x55)	110.00	110.00	29.18		29.18	
		JORETHANG (2x48)	96.00	96.00	13.23		13.23	
		Total Thermal (E.R)	29365.00	29155.00	13654.20	64.53	13654.20	64.53
Total Hydro (E.R)	4686.28	4686.28	778.64		778.64			
Total Diesel	7.10	7.10	0.00		0.00			
Total Solar	10.00	10.00	1.27		1.27			
TOTAL (E.R)	34068.38	33858.38	14434.10		14434.10			
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	85.35		85.35	
		Kurichu (4x15)	60.00	60.00	8.80		8.80	
		TALA (6x170)	1020.00	1020.00	44.13		44.13	
		DAGACHU (2x63)	126.00	126.00	10.69		10.69	
		Grand Total	35634.38	35334.38	14583.07		14583.07	

➤ On calculation of Eastern Regional PLF, Installed Capacity of IPPs as well as their generations (MU) including infirm generation of various units have not been considered.

CONTRIBUTIONS OF DIFFERENT CONSTITUENTS AT THE TIME OF REGI

Date 12-Apr-16
 Time 21.00 Hrs.
 Frequency 49.96 Hz.

(All Fig. in MW)

System/State	Installed	Effective	Hydro	Thermal	Total
	Capacity	Capacity			
BSEB	485	475	0	190	190
JSEB	1390	1320	0	341	341
DVC	7587	7557	9	3914	3923
ODISHA	2975	2965	603	734	1337
WBSEDCL	5015	4925	353	3226	3579
TLDP	212	212	167	0	167
HEL HALDIA	600	600	0	541	541
CESC	1125	1125	0	884	884
DPL	660	660	0	424	424
SIKKIM	14	14	0	0	0
NTPC	6760	6760	0	4258	4258
NHPC	782	782	492	0	492
CHUKHA	360	270	107	0	107
KURICHU	60	60	-5	0	-5
TALA	1020	1020	56	0	56
SEL	2400	2400	0	490	490
APNRL	540	540	0	457	457
Kamalganga (GMR)	1050	1050	0	623	623
JITPL	1200	1200	0	1107	1107
Chuzachen	110	110	101	0	101
Jorethang	96	96	48	0	48
<u>Daghachu</u>	126	126	14	0	14
<u>Total</u>	35634	35334	1945	18180	20125
Import From Captive:					1490
Export To:					
NER					797
SR					982
WR					-375
NR					1088.38
Total					3008
					18607

➤ Indicates Export(+)/Import(-) of Power

Hourly Load Generation Data OF ER On Regional Peak Day During The Month of APRIL-2016 (12-4-2016)

(All Figures in MW)

Hrs.	Generation				Import from Captive	Net		Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	GT	Total		Import From CHPS, KHPS & TALA						
1	1403	22849	0	24252	1399	170	2650	17919	11	99	18029	
2	1328	22437	0	23765	1391	165	3012	17382	23	101	17506	
3	1312	22294	0	23606	1413	166	3241	17290	21	92	17404	
4	1265	21896	0	23160	1461	158	3461	16622	19	144	16785	
5	1244	21720	0	22963	1402	152	3625	16523	29	43	16595	
6	1162	21264	0	22426	1430	129	3790	15808	18	47	15873	
7	766	20437	0	21203	1438	129	3449	15180	-3	84	15262	
8	767	19720	0	20487	1388	160	2908	15097	-7	29	15120	
9	556	19688	0	20244	1405	177	3376	14604	-9	44	14640	
10	385	20219	0	20604	1440	180	3938	14332	-25	60	14366	
11	273	20366	0	20639	1415	180	4063	13952	-28	255	14179	
12	327	20761	0	21088	1417	155	3836	14264	-21	263	14506	
13	332	20746	0	21078	1415	153	3661	14396	-14	238	14621	
14	196	20622	0	20819	1435	178	3643	14019	-10	243	14252	
15	220	21049	0	21269	1459	176	4104	13728	4	219	13951	
16	422	20823	0	21245	1405	160	4005	13817	7	220	14044	
17	616	20916	0	21532	1432	156	4256	14009	-6	398	14401	
18	771	21335	0	22105	1386	140	3548	15094	-16	193	15271	
19	1178	22078	0	23256	1502	120	1906	17270	-3	457	17724	
20	1611	22868	0	24479	1462	142	2005	18345	30	229	18604	
21	1787	23372	0	25159	1490	158	2492	18607	28	227	18861	
22	1742	22863	0	24606	1460	181	2141	18291	38	226	18556	
23	1698	22946	0	24644	1450	192	2573	17946	55	222	18224	
24	1431	22798	0	24229	1477	187	2995	17554	28	342	17924	

Hourly Load Generation Data of ER On Regional Lean Day During The Month of APRIL-2016 (24-4-2016)

(All Figures in MW)

Hrs.	Generation				Import from Captive	Net		Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	GT	Total		Import From CHPS, KHPS & TALA						
1	1776	15126	0	16902	1238	389	2773	16868	72	20	16960	
2	1631	14945	0	16576	1255	392	2883	16324	41	56	16422	
3	1495	14659	0	16154	1268	402	2642	16056	32	57	16146	
4	1333	14506	0	15839	1287	401	2520	15649	8	55	15712	
5	1252	14441	0	15694	1273	400	2278	15879	14	57	15950	
6	1126	13985	0	15111	1223	383	2661	14846	12	139	14996	
7	687	12749	0	13437	1308	383	1924	13976	-2	109	14082	
8	614	12610	0	13224	1351	345	2086	13600	-2	27	13624	
9	612	12704	0	13316	1207	131	2001	13430	1	35	13466	
10	625	12825	0	13451	1215	99	2001	13556	1	21	13578	
11	713	13086	0	13799	1187	188	2890	13068	-6	11	13073	
12	769	12878	0	13647	1226	248	3139	12756	-17	11	12768	
13	769	12526	0	13294	1185	243	2908	12589	-6	10	12593	
14	709	12468	0	13177	1287	387	3285	12352	-9	10	12354	
15	698	12635	0	13333	1252	375	2992	12751	8	7	12766	
16	856	12478	0	13333	1285	351	2632	13148	12	9	13168	
17	804	12459	0	13263	1250	360	2193	13298	2	33	13333	
18	769	12613	0	13383	1159	369	2158	13356	-26	33	13363	
19	1260	13334	0	14594	1148	339	1343	15248	-19	42	15272	
20	1597	14267	0	15864	1241	336	1710	16428	52	131	16610	
21	1666	14493	0	16159	1199	345	1699	16911	56	54	17021	
22	1749	14786	0	16535	1212	363	2319	16847	47	97	16991	
23	1745	15069	0	16814	1162	373	2772	16642	61	53	16756	
24	1767	15155	0	16922	1142	379	2988	16610	57	47	16713	

NOTIFIED POWER CUTS/RESTRICTIONS ON INDUSTRIES & POWER SUPPLY TO AGRICULTURE SECTOR
FOR THE MONTH OF APRIL-2016

POWER CUT / RESTRICTIONS

BSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 113.64 MU
JSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 4.62 MU
DVC	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 11.05 MU
ODISHA	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 0.00 MU
WEST BENGAL	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 17.72 MU

POWER SUPPLY TO AGRICULTURAL SECTOR

STATE	HOURS OF SUPPLY (AVERAGE / DAY)
BIHAR	18 HRS.00 MINS.
JHARKHAND	ABOUT 20 to 22 HRS.
ODISHA	24 HRS.
WEST BENGAL	23 HRS.

FREQUENCY DETAILS FOR THE MONTH OF

Apr-16

D A T E	H O U R S									INST. FREQ.				15 MIN INTEGRATED				
	00 TO 05	05 TO 10	10 TO 17	17 TO 22	22 TO 24	00 TO 24	<49.9	49.9 TO	>50.05 TO	49.9 TO	MAX HZ	HRS.	MIN HZ	HRS.	MAX HZ	HRS.	MIN HZ	HRS.
	01-Apr	50.00	49.99	49.94	49.96	49.99	49.97	14.10	72.07	13.83	72.07	50.32	18.02	49.72	19.10	50.07	7.00	49.77
02-Apr	49.99	50.00	49.94	49.95	49.96	49.96	18.01	70.38	11.61	70.38	50.15	12.02	49.65	14.12	50.05	2.45	49.76	14.00
03-Apr	49.97	50.02	50.01	49.97	49.99	50.00	4.91	73.23	21.86	73.23	50.20	14.04	49.67	21.07	50.07	6.15	49.86	19.00
04-Apr	49.97	49.99	49.92	49.91	49.93	49.94	25.13	65.75	9.12	65.75	50.19	13.01	49.66	14.50	50.06	7.00	49.74	14.45
05-Apr	49.96	50.00	50.00	50.01	49.98	49.99	5.82	72.09	22.09	72.09	50.20	18.30	49.76	19.07	50.09	17.00	49.89	5.15
06-Apr	50.02	50.01	49.98	49.98	49.87	49.98	11.50	65.70	22.80	65.70	50.22	18.03	49.69	23.09	50.07	1.45	49.73	22.15
07-Apr	49.94	49.97	49.95	49.98	49.99	49.96	13.61	74.25	12.14	74.25	50.19	13.01	49.78	0.09	50.06	6.45	49.84	14.30
08-Apr	49.98	50.00	49.97	49.99	49.97	49.98	7.65	75.69	16.66	75.69	50.22	18.01	49.82	12.14	50.07	7.00	49.84	14.30
09-Apr	50.00	50.00	49.97	49.99	49.97	49.99	9.70	73.13	17.17	73.13	50.16	6.02	49.76	19.12	50.06	6.00	49.85	22.30
10-Apr	49.94	49.98	49.99	49.96	49.97	49.97	12.28	72.53	15.19	72.53	50.18	13.03	49.79	5.24	50.11	13.00	49.84	21.00
11-Apr	49.97	49.97	49.94	49.92	49.94	49.95	18.29	73.08	8.63	73.08	50.23	13.01	49.68	20.34	50.07	13.00	49.76	20.30
12-Apr	49.97	50.01	50.02	49.98	49.93	49.99	7.31	69.43	23.26	69.43	50.20	17.03	49.76	22.34	50.08	9.45	49.85	22.30
13-Apr	50.00	50.01	50.00	49.98	49.93	49.99	7.11	69.96	22.93	69.96	50.25	10.03	49.75	21.07	50.12	10.00	49.80	22.15
14-Apr	49.94	49.99	49.94	49.96	49.91	49.95	21.20	66.09	12.71	66.09	50.19	19.44	49.68	19.15	50.07	6.15	49.81	14.15
15-Apr	49.98	49.97	49.98	49.97	49.90	49.97	15.97	69.77	14.26	69.77	50.24	18.02	49.77	23.18	50.06	18.00	49.84	4.45
16-Apr	49.94	50.00	49.96	49.99	49.91	49.97	17.78	66.58	15.64	66.58	50.20	18.02	49.74	0.38	50.08	6.45	49.81	0.45
17-Apr	49.99	50.03	50.00	50.03	49.99	50.01	2.78	69.23	27.99	69.23	50.18	8.02	49.82	1.11	50.09	8.00	49.90	0.00
18-Apr	50.02	50.03	49.99	50.01	49.98	50.01	3.11	68.08	28.81	68.08	50.21	7.01	49.71	23.05	50.12	7.00	49.90	15.15
19-Apr	49.99	50.03	49.97	49.96	49.93	49.98	7.56	75.65	16.79	75.65	50.20	18.32	49.72	23.07	50.08	6.45	49.82	23.00
20-Apr	49.97	49.99	49.97	49.95	49.93	49.97	11.48	77.83	10.69	77.83	50.15	17.01	49.79	19.19	50.05	21.45	49.78	19.15
21-Apr	49.97	50.03	50.01	49.98	49.96	49.99	6.22	69.60	24.18	69.60	50.22	13.02	49.81	15.25	50.16	13.00	49.86	15.15
22-Apr	49.99	50.01	49.99	50.01	49.97	50.00	3.28	75.71	21.01	75.71	50.23	18.03	49.75	22.08	50.11	18.00	49.91	14.45
23-Apr	50.00	50.02	49.98	49.98	49.90	49.99	8.23	72.90	18.87	72.90	50.21	18.02	49.75	14.14	50.09	8.00	49.82	22.30
24-Apr	49.94	50.00	50.01	49.97	49.90	49.97	12.14	72.29	15.57	72.29	50.27	18.03	49.66	0.08	50.10	18.00	49.78	0.00
25-Apr	49.98	49.97	49.92	49.93	49.89	49.94	23.82	68.37	7.81	68.37	50.15	18.02	49.66	19.10	50.03	7.00	49.76	19.00
26-Apr	49.91	49.93	49.86	49.95	49.88	49.91	40.20	55.41	4.39	55.41	50.21	18.02	49.64	12.18	50.04	18.00	49.73	15.15
27-Apr	49.86	49.95	49.93	49.98	49.91	49.93	35.01	55.48	9.51	55.48	50.20	18.01	49.71	1.50	50.07	18.00	49.77	4.45
28-Apr	50.01	50.00	49.95	50.02	49.91	49.98	11.86	65.15	22.99	65.15	50.24	18.01	49.71	15.24	50.10	18.00	49.78	15.15
29-Apr	49.99	50.00	49.96	50.03	49.98	49.99	5.44	75.88	18.68	75.88	50.29	18.01	49.75	15.13	50.11	18.00	49.85	15.15
30-Apr	50.02	50.04	49.97	50.02	49.96	50.00	4.73	68.38	26.89	68.38	50.28	18.02	49.73	15.16	50.11	18.00	49.79	15.15
MAX	50.02	50.04	50.02	50.03	49.99	50.01	40.20	77.83	28.81	77.83	50.32		49.82		50.16		49.91	
MIN	49.86	49.93	49.86	49.91	49.87	49.91	2.78	55.41	4.39	55.41	50.15		49.64		50.03		49.73	
AVG	49.97	50.00	49.97	49.98	49.94	49.97	12.87	69.99	17.14	69.99	50.21		49.73		50.08		49.81	

SUMMARY:

Avg. Frequency : **49.97 Hz.**

Instantaneous Frequency :

Maximum Frequency : 50.32 Hz On 00/01/00 at 18:02 Hrs.

Minimum Frequency : 49.84 Hz On 00/01/00 at 12:18 Hrs.

15 Minutes Integrated Frequency :

Maximum Frequency : 50.16 Hz On 00/01/00 at 13:00 Hrs.

Minimum Frequency : 49.73 Hz On 00/01/00 at 22:15 Hrs.

Frequency Distribution in % of Time

Hz	<49.9	49.9-50.05	>50.05
% of Time	12.87	69.99	17.14

VOLTAGE ANALYSIS

MAXIMUM & MINIMUM VOLTAGES RECORDED AT IMPORTANT 400 kV S/S IN THE MONTH OF APRIL-2016

(All figs. in kV)

PGCIL	FARAKKA		SUBHASGRAM		DURGAPUR		JEERAT		PURNEA	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	796	760	410	392	408	399	415	372	409	391

PGCIL	FARAKKA		SUBHASGRAM		DURGAPUR		JEERAT	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	422	389	425	412	399	392	425	370

ANNEXURE-III

DETAILS OF CONSTITUENT WISE LOAD SHEDDING IMPLEMENTED THROUGH UFRs IN THE EASTERN REGION

Expected Load Relief through UFRs by ER Constituent:

(All Fig. are in MW)

STATES/ UTILITIES	STAGE-I (49.2 Hz) (Inst.)	STAGE-II (49.0 Hz) (Inst.)	STAGE-III (48.8 Hz) (Inst.)	STAGE-IV 48.2 Hz (Inst.)	Total Load Relief by Control Area
BIHAR	98	99	99	101	397
JHARKHAND	61	62	61	62	246
DVC	134	135.5	136	137	542.5
ODISHA	181.5	183.5	184	186	735
WEST BENGAL (incl. CESC)	345.5	350	350	354	1399.5
TOTAL	820	830	830	840	3320

As decided in the National Power Committee (NPC) meeting held on 16.07.2013 and subsequently in the 89th OCC meeting of ERPC to implement the scheme w.e.f. 30.09.2013.

A.

**WATER LEVEL OF MAJOR HYDEL RESERVOIRS OF THE REGION IN
APRIL-2016**

(All figs.in mtrs.)

Name of the Reservoirs	FRL	MDDL	As on last day of the		As on first day of this month & date	
			(30-4-16)	(30-4-15)		
Hirakud	192	180	185.79	185.57	187.61	01.4.16
Balimela	462	439	450.19	454.06	451.07	01.4.16
Rengali	123	109	114.24	119.47	116.10	01.4.16
Upperkolab	858	844	849.56	852.66	851.64	01.4.16
Indravati	642	625	631.76	634.62	632.98	01.4.16
Subernrekha	590	580	585.03	584.42	585.58	01.4.16

B.

CPP/IPP IMPORT by Eastern Region Constituents during APRIL-2016

(All figs. are in MU)

System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
West Bengal	52.08	26.17	0	0	0	0	0	230.14	308.39
ODISHA	0	0	28.67	341.96	12.63	23.84	0	311.57	718.66
DVC	0	0	0	0	0	0	11.57	0	11.57
TOTAL	52.08	26.17	28.67	341.96	12.63	23.84	11.57	541.71	1038.62

C.

Distribution of Schedule Supply among Key Customers by IPPs during APRIL-2016

(All figs. are in MU)

IPP	TPDDL	WBSEDCL	DVC *	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	182.66	185.90	139.35	3.83	0	0	95.94	607.68
Sterlite	0	0	0	0	341.96	0	205.72	547.68
APNRL	0	56.69	0	0.18	0.00	139.32	58.17	254.36
GMR	0	0.00	0	31.34	145.79	0	389.58	566.71
Total	182.66	242.59	139.35	4.01	341.96	139.32	359.83	1409.72

(*)--During this month, DVC has drawn 139.92 MU of MPL energy which is included in its exchange with Grid.

D.

Monthwise Gross Generation from Chuzachen HEP

April'15	May'15	June'15	July'15	Aug'15	Sep'15	Cum. Total (2015-16)
29.18	0.00	0.00	0.00	0.00	0.00	
Oct'15	Nov'15	Dec'15	Jan'16	Feb'16	Mar'16	
0.00	0.00	0.00	0.00	0.00	0.00	

ANNEXURE-V

STATUS OF IMPORTANT TRANSMISSION LINES UNDER CONSTRUCTION

(As on 30.04.16)

Sl. No.	Name of the Trans. Line	Length (CKM)	Completion Target		Remarks/Constraints
			Schedule	Ant. / Act.	
1.0 <u>INTER REGIONAL SYSTEMS</u>					
1.1	Common Scheme for 765 KV Pooling Station and Network associated with DVC & Maithon RB Project etc. and Import by NR & WR via ER	2038	Aug'12	Dec'14	Project Completed.
1.1.1	400 KV D/C Maithon - Gaya line (Q) (Inclu. M/C portion for Koderma-Gaya)-39 Kms.	552	Aug'12		Commissioned
1.2	Supplementary Transmission System Associated with DVC & Maithon Right Bank Project				
1.2.1	400 KV D/C Bokaro TPS Extn. - Koderma TPS	200	Aug'12		Commissioned
1.2.2	400 KV D/C Koderma -Gaya line (Quad) (excl. M/C portion-39 Kms.)	256	Aug'12		Commissioned
2.0 <u>EASTERN REGION</u>					
2.1	Eastern Region Strengthening Scheme - III	716	Nov'12	Jun'17	
2.1.1	400 kv D/C Sasaram-Daltonganj line	392		Jun'17	
2.1.2	LILO of 400kv D/C (one ckt) Baripada-Mendhasal line at Dubri (OPTCL)	32			Commissioned
2.1.3	400 KV D/C Baripada-Mendhasal-at Pandiabil.	56			Commissioned
2.2	Transmission System for Phase-I Generation Projects in Jharkhand and West Bengal-Part-AI.	370	Nov'13	Jul'16	Gen. projects delayed (ant. In 2016-17 & beyond)
2.2.1	400kv D/C Ranchi (765/400kv S/S)-Jharkhand Pool-Gaya line (Quad)	136		Dec'15	Commissioned
2.3	Transmission System for Transfer of Power from Generation in SIKKIM to NR/WR Part-A	52	May'13	Sep'15	Revised BPTA Schedule-May'13 land for Kishangang substation acquired in Aug'13.

2.3.1	LILO of Siliguri (Existing)-Purnea 400 KV D/c line at New Pooling station at Kishanganj	16			Commissioned.
2.3.2	LILO of Siliguri (Existing)-Purnea 400 KV D/c line (on which reconductoring is being carried out) at Kishanganj with QUAD Cond.	48		Jun'15	Completion matching with Kishanganj S/s.
2.3.3	LILO of Siliguri-Dalkhola 220KV D/c line at New pooling sation Kishanganj	36			Commissioned
2.3.4	LILO of Gangtok-Melli 132 KV S/c line up to Rangpo	19			Commissioned
2.4	Eastern Region Strengthening Scheme - V	961		Dec'16	
2.4.1	400 kV Rajarhat – Purnea line(Tripal) with LILO of one Ckt at Gokarana (WBSETCL) & other Ckt at Farakka(NTPC)	953		Dec'16	Severe row problem in Jharkand area.
2.4.2	LILO of Subhasgram-Jeerat 400 kV S/C line at Rajarhat.	8		Sep'16	
2.5	Trans mission system associated with Darlipali TPS	48	Jun'18	Jun'18	
2.5.1	765 kV D/C Darlipalli TPS – Jharsuguda (Sundergarh) Polling Stn. Line.	48		Jun'18	Award placed in Jan'16. Efforts being made to complete in 2016-17 for start up power to NTPC.
2.6	Eastern Region Strengthening Scheme - XV	195	Apr'18	Apr'18	
2.6.1	400 kV D/C Farakka – Baharampur line (Twin HTLS)	160		Apr'18	Award place in Apr'16
2.6.2	LILO 400 kV S/C Farakka – Jeerat line at sagardighi.	30		Apr'18	Award place in Apr'16
2.6.3	LILO 400 kV S/C Sagardighi – Subhasgram t line at Jeerat.	2		Apr'18	Award place in Apr'16
2.6.4	Removal of the existing LILO Farakka – Jeerat S/C line at Baharampur.	3		Apr'18	Award place in Apr'16
2.7	Powergrids works associated with Common trans. System for Phase II Gen. Proj. in Odisha.	136	Apr'19	Apr'19	
2.7.1	LILO of both Ckt of 400kV D/C Rourkela- Raigarh (2 nd line) at Jharsuguda.	136		Apr'19	Award place in Apr'16
2.8	Associted transmission system for Nabinagar-II TPS.	482	Jun'19	Jun'19	
2.8.1	400kV D/C Nabinagar II- Gaya Line(Q)	204		Jun'19	Award place in Apr'16
2.8.2	400kV D/C Nabinagar II- Patna Line (Q)	278		Jun'19	Award place in Apr'16

3.0 **DVC**

3.1	220 KV D/C MTPS- Ramgarh line via Gola	342	Dec' 08	Mar'16	Working clearance obtained in 6.3.13. 108ckm of line has been charged at 220 kV from MTPS end on 09.09.15.
3.2	220 KV D/C Gola-Ranchi Line	112	Nov,14	Jul'16	Railway Crossing proposal, Line crossing proposal and PTCC proposal to be submitted in Feb'14.
3.3	220 KV D/C Koderma – Giridih	212			Commissioned.
3.4	2 nd Circuit LILO of MTPS-Kalyaneswari line at Burnpur Sub-station	37	Dec'10	Mar'16	Severe ROW problem in most locations.
3.5	a) 400kv D/C Raghunathpur TPS to Ranchi.	311		Dec'14	Working clearance obtained in Jan'13. PTCC clearance issued on 18.02.14.
3.6	220 kv D/C Koderma-Giridih line	212	Feb'10		Commissioned.

4.0 **ODISHA**

4.1	220 KV D/C line from Bidanasi to Cuttack	20.84	Oct'10		Commissioned.
4.2	400 KV line from Meramundali to Mendhasal	200.9	June'99		Commissioned.
4.3	Construction of 2 nos. 220kv feeders from 220/132/33 kv Grid s/s of OPTCL at Jaynagar to 400/220 kv Grid s/s of PGCIL at Jaynagar having line length of approx. 8.608 kms with 2 nos. of 220 kv bay extension at each end.	15.098	--		Commissioned.

5.0 **WBSETCL**

5.1	Subhasgram (PG) – Saintala 220 KV D/C line (ACSR Zebra)	25	--	--	Converted to M/C line. Work will be carried jointly with CESC.
5.2	TLDC-IV-NJP 220 KV D/C (ACSR Zebra)-ckt-2			May'13	Commissioned.
5.3	Santaldhi TPS-Bishnupur 220 KV D/C	224.0			Work held up due to Contractual problem.
5.4	Raghunathpur to Hura 220 KV D/C	72.0		June'13	Foundation work not yet commenced.

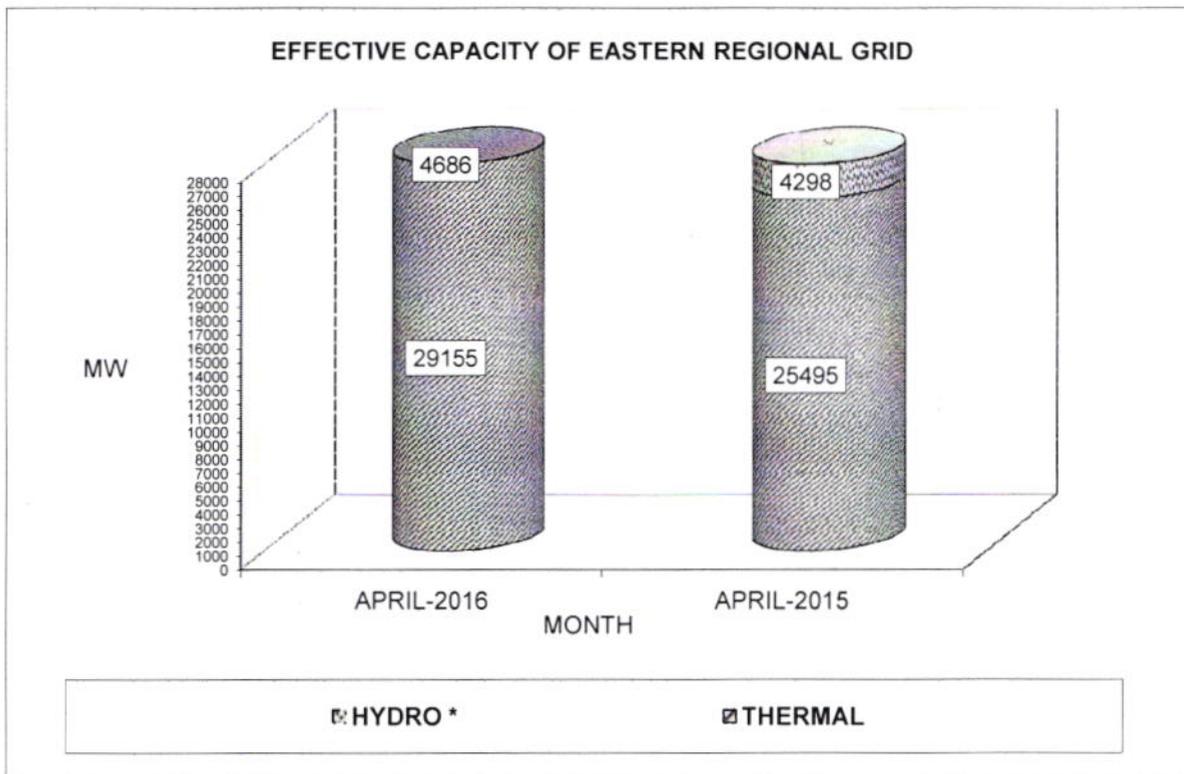
ANNEXURE-VI**COMMISSIONING SCHEDULE OF NEW GENERATING STATION**

(As on 30.04.16)

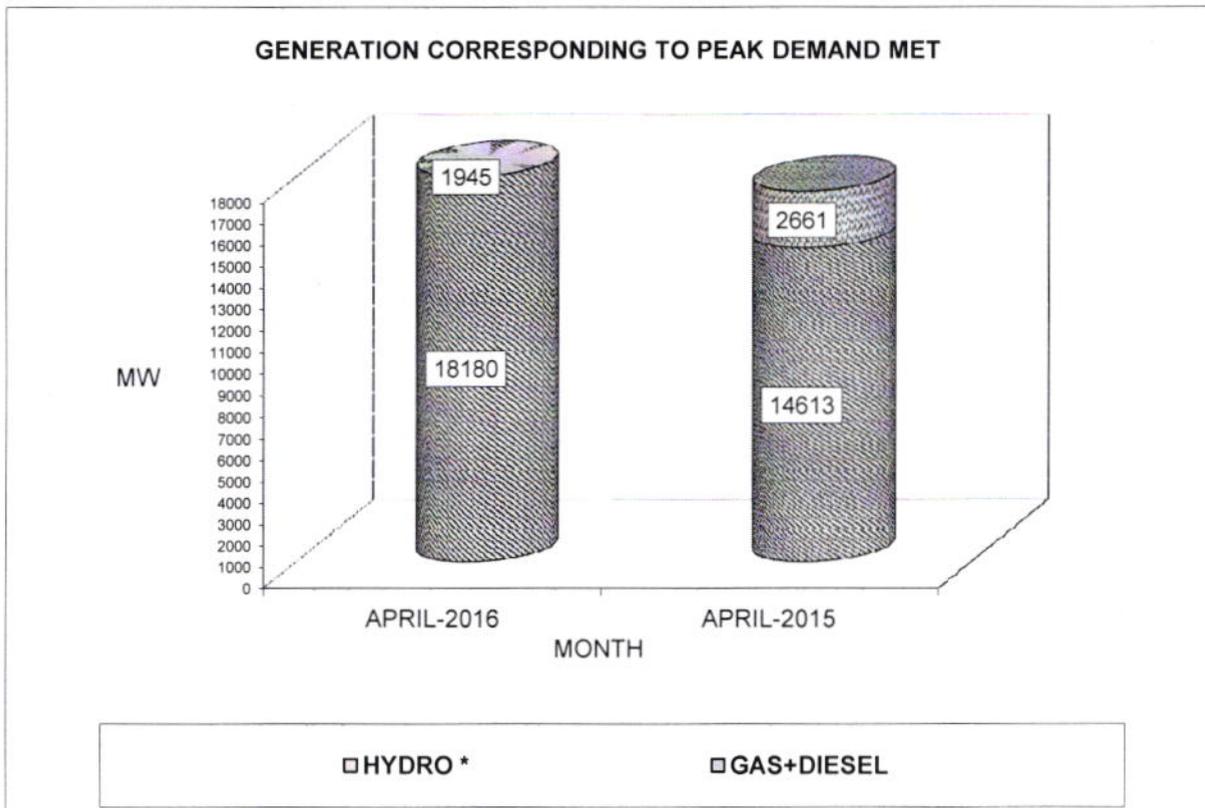
Sl. No.	AGENCY	NAME OF POWER STATION	STATE	TYPE	UNIT NO.	CAPACITY (MW)	LATEST COMMISSIONING SCHEDULE
1	DVC	BTPS 'A'	West Bengal	THERMAL	1	500	Expected COD on Dec, 2015
2	ODISHA	Corporate Power Ltd.	Odisha	THERMAL	1	257	
3	WBPDC	Sagardighi	West Bengal	THERMAL	3	500	Expected COD on Oct, 2015
4	WBPDC	Sagardighi	West Bengal	THERMAL	4	500	Expected COD on Feb, 2016
5	KBUNL	Muzaffarpur (MTPS)	Bihar	THERMAL	1	195	Expected COD on July, 2015
6	KBUNL	Muzaffarpur (MTPS)	Bihar	THERMAL	2	195	Expected COD on May, 2016
7	BRBCL	Nabinagar Tpp	Bihar	THERMAL	1	250	Expected COD on Jan, 2016
8	BRBCL	Nabinagar Tpp	Bihar	THERMAL	2	250	Expected COD on Sep, 2016

IPP

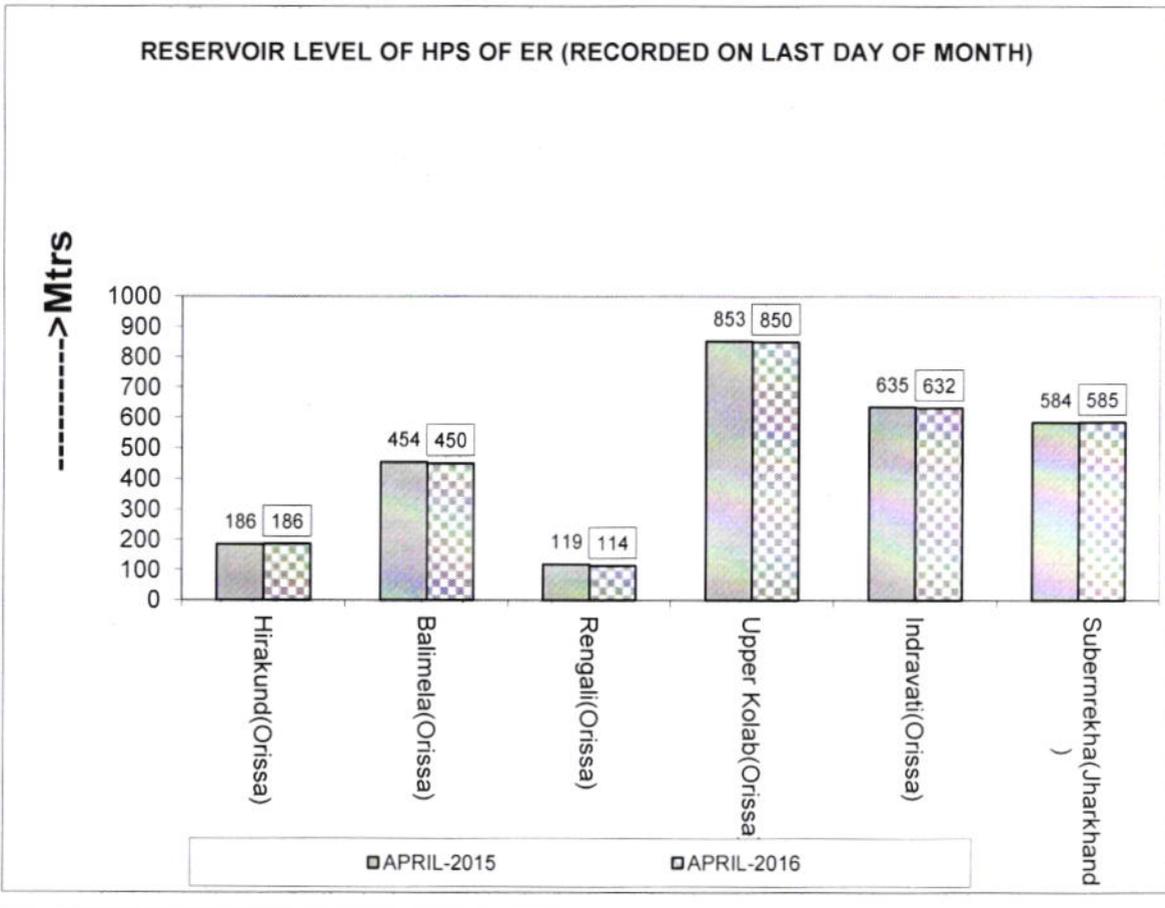
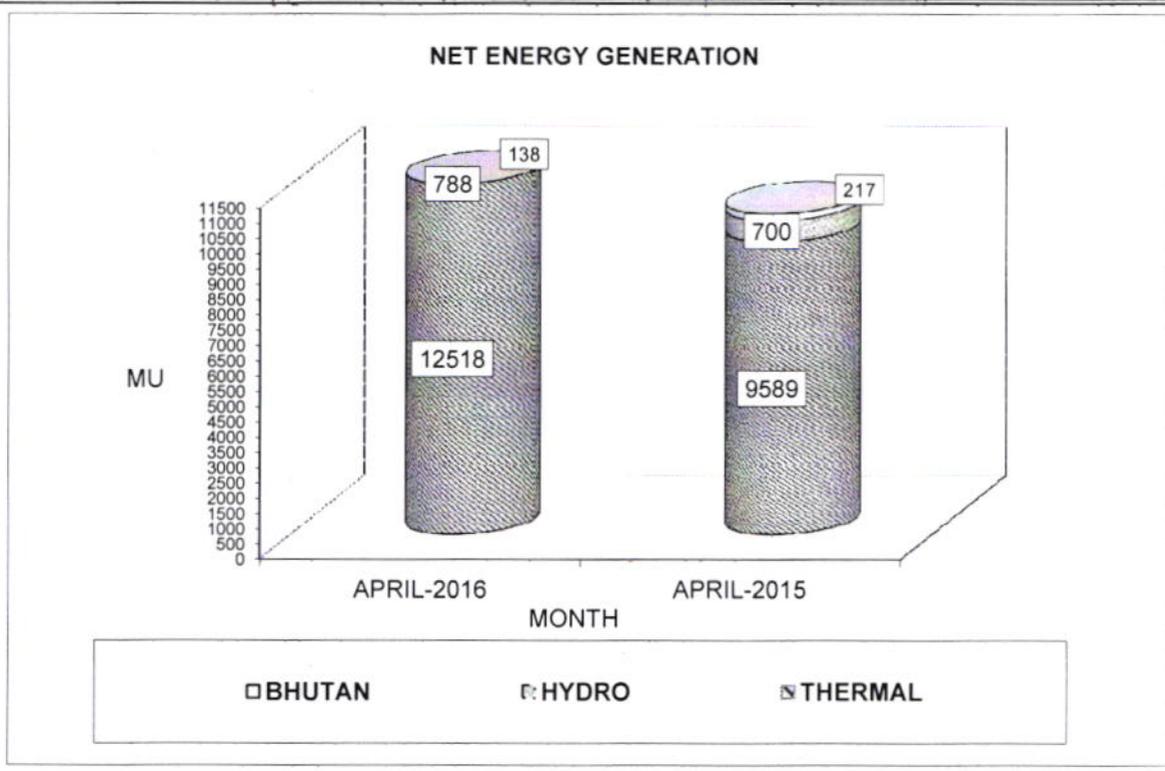
9	IPP	Jorethang	Sikkim	HYDRO	1	48	COD on 26.09.2015
10	IPP	Jorethang	Sikkim	HYDRO	2	48	COD on Oct' 2015
11	IPP	Ind Bharat TPP	Odisha	THERMAL	1	350	Expected COD on Apr' 2016
12	IPP	Ind Bharat TPP	Odisha	THERMAL	1	350	Expected COD on Apr' 2016



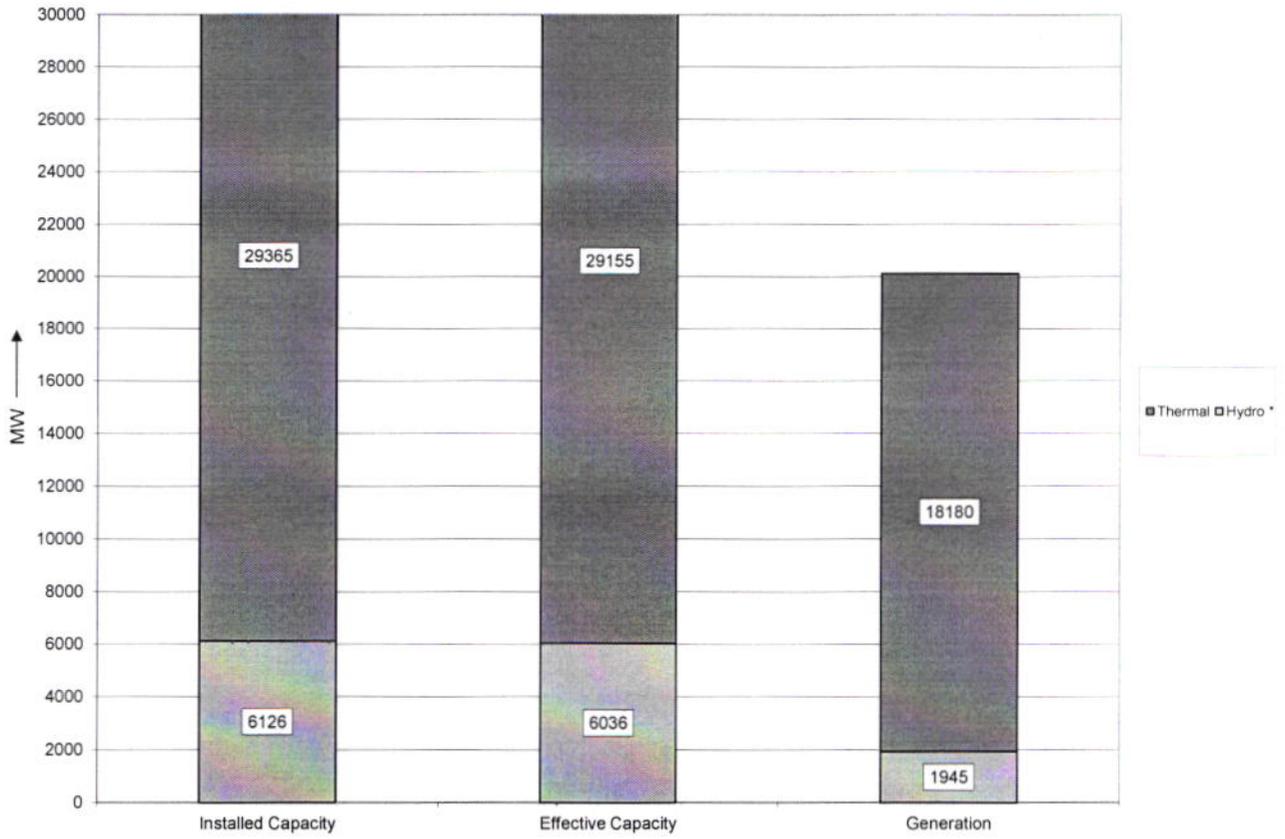
*Excludes 1350 MW contribution from HEPs of Bhutan



*Includes contribution from HEP of Bhutan

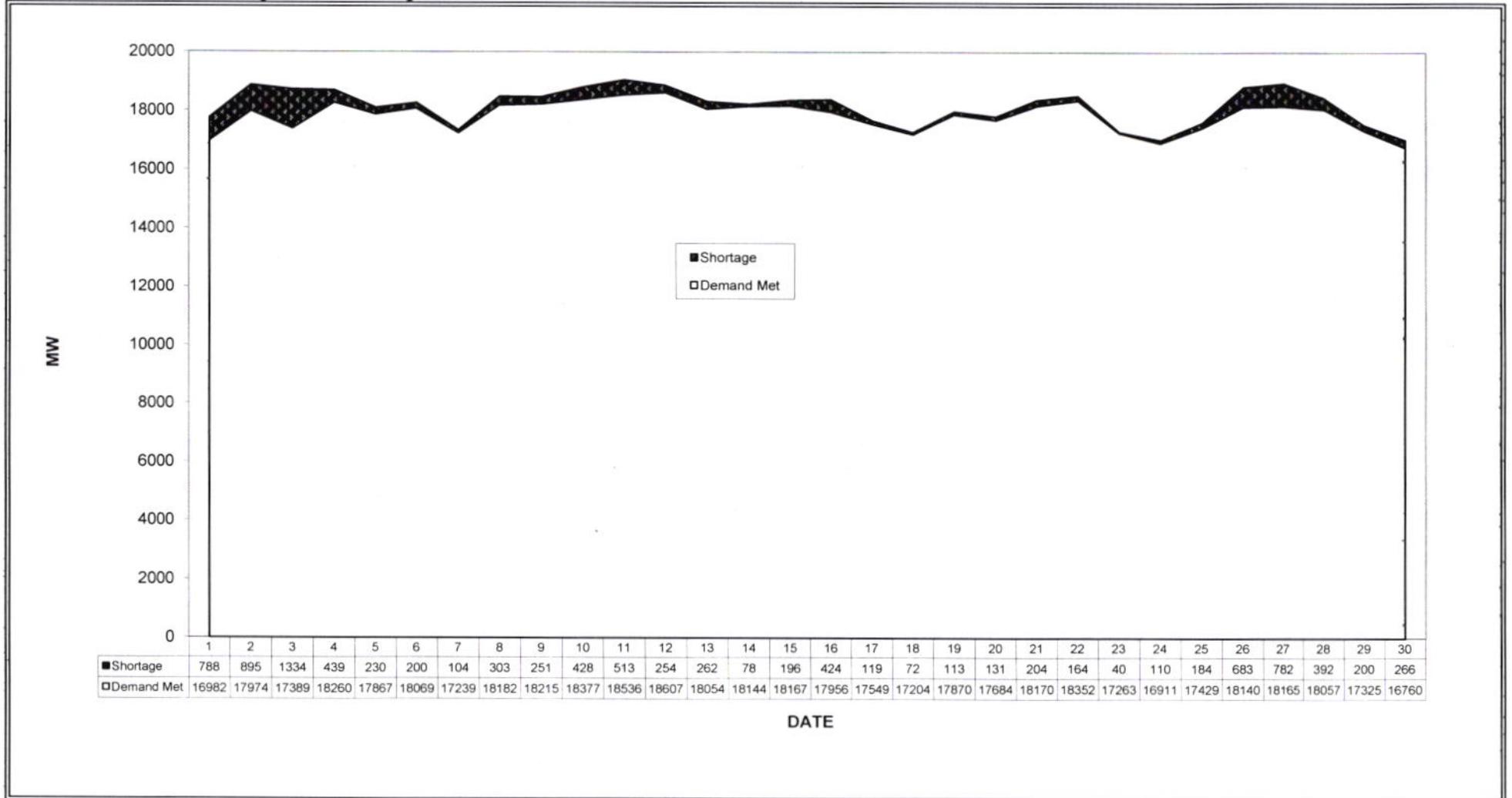


Capacity / Actual Generation Pattern of ER on Peak Day (12-4-2016) at 21.00 hrs.

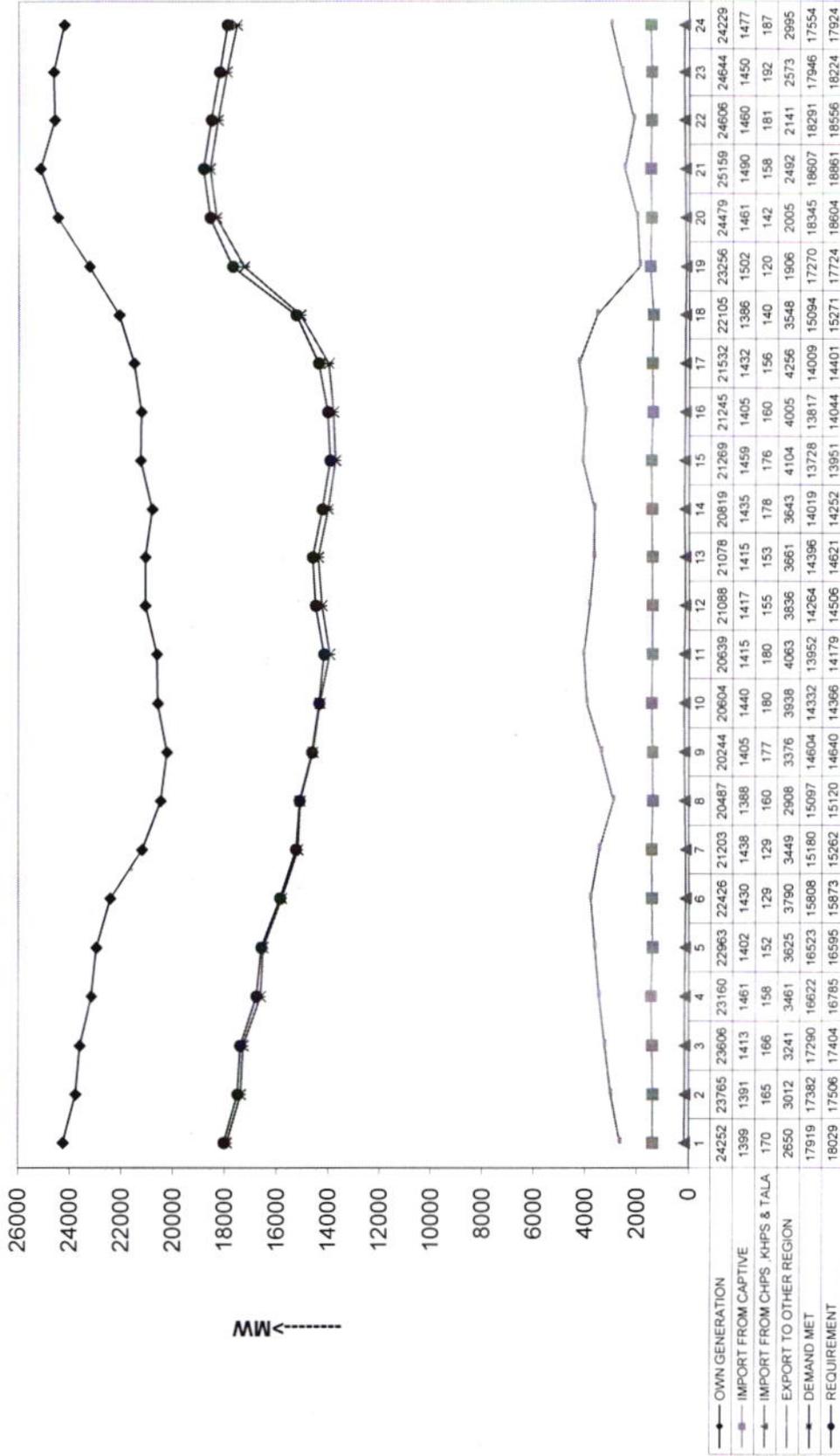


(*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

Peak Demand Met / Shortage of Eastern Region For The Month Of APRIL-2016

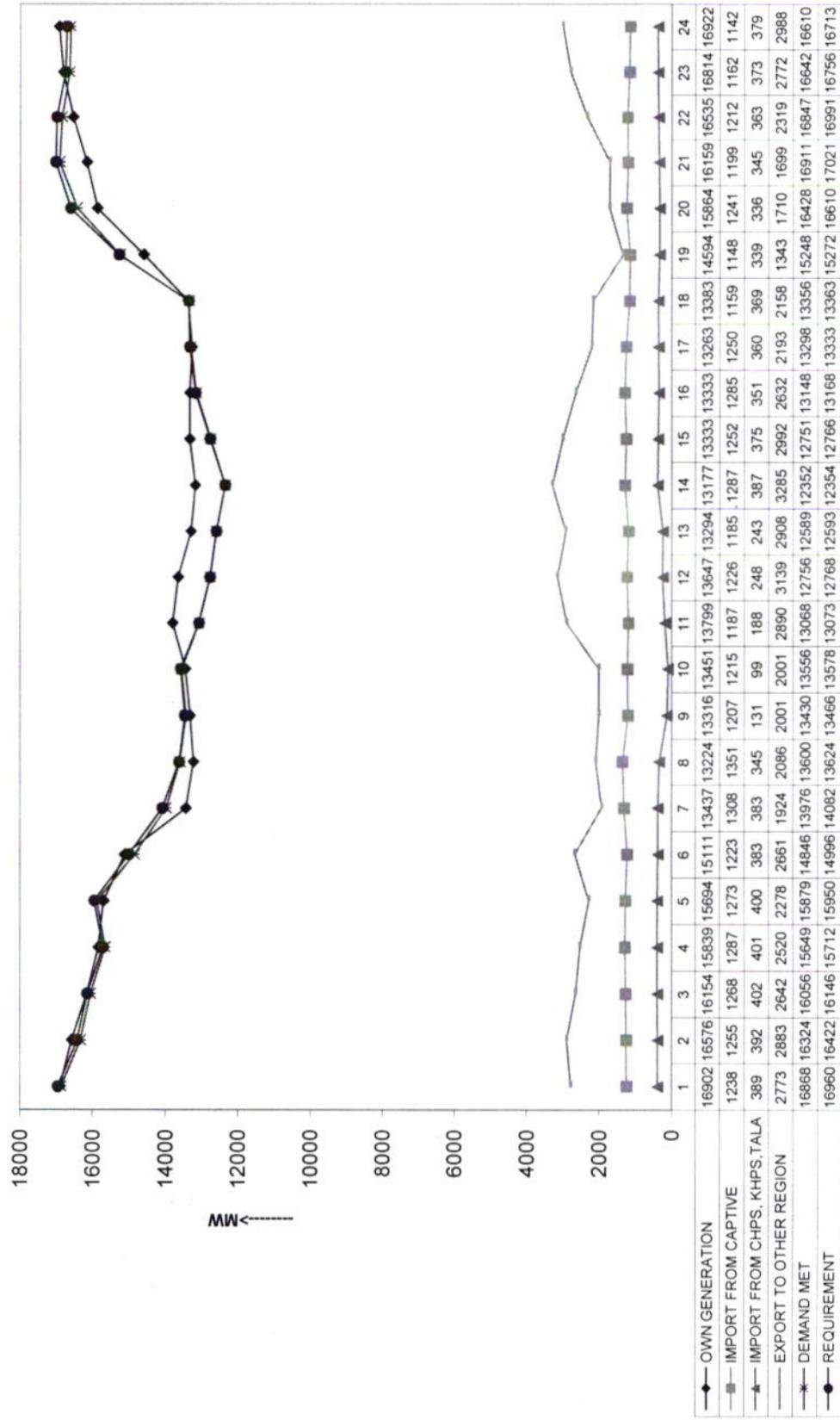


Hourly Load Generation Data Of ER On Regional Peak Day During The Month of APRIL-2016 (12-4-2016)

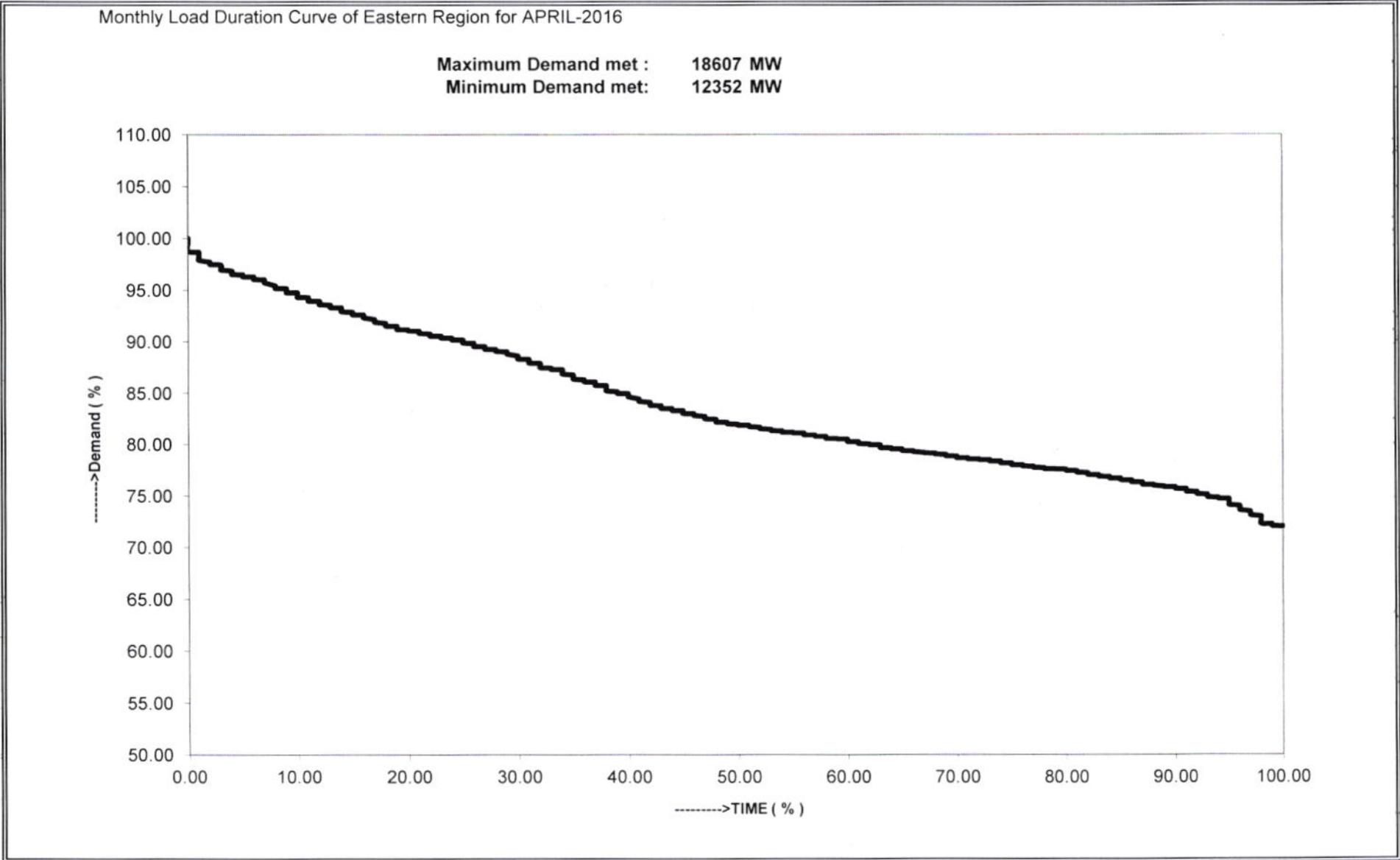


----->Hrs.

Hourly Load Generation Data of ER On Regional Lean Day During The Month of APRIL-2016 (24-4-2016)



----->Hrs.



WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH

