



भारत सरकार
Government of India
विद्युत विभाग
Ministry of Power
पूर्व क्षेत्रीय बिजली प्राधिकार
EASTERN REGIONAL POWER COMMITTEE

प्रगति रिपोर्ट
**PROGRESS REPORT FOR THE MONTH
OF**
सितंबर & 2016
SEPTEMBER - 2016

पूर्व क्षेत्रीय बिजली प्राधिकार
Eastern Regional Power Committee
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Highlights of Eastern Regional Power System for September-2016

- The **Maximum Net Demand** met of **Eastern Region (ER)** during the month of **Sep, 2016** was **18469 MW** which is 4.27% more than the **Sep, 2015** (17712 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 **Sep, 2016** was **364.20 MU** excluding export, which is marginally less than the corresponding period of last year (369.71 MU).
- **The Average regional PLF of thermal units 57.11% during the month**, which is marginally less than the corresponding period of the last year (57.41%).
- **TTPS (Gridco)** registered the highest **PLF** of **96.16%**, followed by **TSTPP (NTPC) (93.80%)** & Santaldih **TPS of (WBPDL) (87.34%)** during the month of **Sep' 2016**.
- **Total Net generation** of ER was **18949 MW** against total **Effective Capacity of 35994 MW** (including that of Bhutan), and import from CPPs was 1023 MW at the time of Regional peak (18469 MW on 01.09.16 at 22.00 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 75.15% of time during the period. **Average frequency** for the month was **49.99 Hz**. The instantaneous maximum and the minimum frequency touched were 50.24 Hz and 49.67 Hz respectively. The integrated (Fifteen minutes time block average) maximum and minimum frequency were **50.15 Hz** and **49.76 Hz** respectively (**refer Annexure-I**).
- The **Maximum Voltage** recorded **431KV** at Jamshedpur 400 **KV S/s** whereas the minimum voltage recorded 370 KV at Jeerat 400 KV S/s of Powergrid.
- **The Maximum Export from ER to outside region was 4944 MW on 27th Sep'16 at 14.00 hrs.** Total net energy export during the month was **2575.37 MU** (including transmission loss), which corresponds to 18.81% of ex-bus total generation (13689.84 MU) of Eastern Region and 60.97 more than the corresponding period of previous year.
- **The import from CPPs/PPs** was **1343.63 MU**, which is 43.76% more than corresponding period of last year (**934.61 MU**).

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

Export / Import by Bihar	Sep, 2016(In MU)	Cum. (Apr'16-Sep'16) in MU
Export to NEPAL by Bihar (NBPDL)	77.92	641.96
Export to NEPAL by NVVN	39.14	302.74

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

Export	During Sep, 2016(In MU)	Cum. (Apr'16-Sep'16) in MU
Exchange between India & Bangladesh	321.49	1921.57

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

Region	Max. Export of Power ER (MW)	Max. Import of Power by ER (MW)	Net Export of Energy (MU)
NR	4097	0	1616
WR	886	1890	-359.29
SR	1733	552	420.66
NER	1385	215	537.81

SALIENT FEATURES

(YEAR TO YEAR COMPARISION)

		Sep-16	SEP-2015	CHANGE	% CHANGE
1)	Effective Capacity (end of the Month)				
	THERMAL (MW)	29655	27295	2360	8.65
	HYDRO (MW)	4846	\$ 4298	548	13
	DIESEL (MW)	7	0	7	0
	SOLAR (MW)	10	0	0	0
	TOTAL (MW)	34518	31593	2925	9.26
2)	Peak Demand (MW)	18638	17998	640	3.56
3)	Peak Demand Met (MW)	18469	17712	757	4.27
4)	Shortage (MW)	169	285	-116	-40.72
5)	% Shortage	0.91	1.56	-0.65	-41.89
6)	Average Energy Requirement Per Day (MU)	367.43	372.07	-4.64	-1.25
7)	Average Energy Availability Per Day (MU)	364.20	369.71	-5.51	-1.49
8)	Average Shortage Per Day (MU)	3.23	2.36	0.88	37.14
9)	% Shortage	0.88	0.63	0.25	38.87
10)	Net Generation for the Month				
	Thermal (MU)	11007.91	9697.83	1310.08	13.51
	Hydro (MU)	2681.07	* 2080.66	600.41	28.86
	Diesel (MU)	0.00	0.00	0.00	-
	Total (MU)	13690	11778.49	1911.35	16.23
11)	Generation at the Time of Max. Regional Demand Met (01-09-16 at 22.00 Hrs.)				
	Thermal (MW)	14721	13400	1321	9.86
	Hydro (MW)	4228	* 4078	150	3.69
	Diesel (MW)	0	0	0	-
	Total (MW)	18949	17478	1471	8.42
12)	Inter-Regional Energy Transfer				
	Export (MU)	2934.65	1958.95	975.71	49.81
	Import (MU)	359.29	359.03	0.25	0.07
	Net Exp.(+)/Net Imp.(-) (MU)	2575.37	1599.92	975.45	60.97
13)	Import From Captive(MU)	1343.63	934.612	409.02	43.76
14)	Peak Inter Regional Power Transfer				
	Max Export (MW) on 27-09-16 at 14.00Hrs	4944	4334	610	14.07
	Max Import (MW) on 02-09-16 at 23.00Hrs	1890	1808	82	4.53
	Max Net Export(+)/Import (-) (MW) on 00-01-00 at 00.00Hrs	4931	4002	929	23.21
15)	Maximum voltage recorded	431	JAMSHEDPUR		
16)	Minimum voltage recorded	370	JEERAT		

\$ Excludes 1350 MW contribution from HEPs of Bhutan

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

POWER SUPPLY POSITION FOR THE MONTH OF SEP-2016

A) Net Average Energy Per Day

System	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSEB	69.61	71.83	2.23	3.10
JSEB	21.18	21.23	0.05	0.24
DVC	55.55	55.93	0.38	0.67
ODISHA	68.11	68.14	0.03	0.04
WBSIEDCL	110.80	111.33	0.53	0.48
CESC	31.69	31.71	0.01	0.04
DPL	6.03	6.03	0.00	0.04
SIKKIM	1.23	1.23	0.00	0.04
REGION	364.20	367.43	3.23	0.88

B) Peak Demand in MW:

System	Demand Met (MW)	Requirement (MW)	Shortage (MW)	% Shortage
BSEB	3623	3840	218	5.67
JSEB	1138	1141	3	0.26
DVC	2723	2841	118	4.16
ODISHA	3936	3939	3	0.08
WBSIEDCL	5968	6000	32	0.53
CESC	1845	1845	0	0.0
DPL	388	389	1	0.13
SIKKIM	82	83	1	1.20
REGION	18469	18638	169	1

➤ DIVERSITY FACTOR : 1.07

➤ Regional Peak Demand Met on 1-9-2016 at 22.00 hrs. at 50.02 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	Requirement	Shortage	Shortage	Avg. Freq.	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.
	(MU/Day)	(MU/Day)	(MU/Day)	(%)	(HZ)	(MU/Day)	(MU/Day)	(MU/Day)	(%)	(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	353.14	358.24	5.10	1.42	50.00
JUNE	351.46	353.07	1.61	0.46	49.99	377.01	380.64	3.63	0.95	49.99
JULY	342.90	344.59	1.68	0.49	49.98	370.16	371.83	1.67	0.45	50.00
AUGUST	363.08	364.98	1.90	0.52	49.97	370.20	372.52	2.31	0.62	49.99
SEPTEMBER	369.71	372.07	2.36	0.63	49.93	364.20	367.43	3.23	0.88	49.99
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	Requirement	Shortage	Shortage	Avg. Freq.	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.
	(MW)	(MW)	(MW)	(%)	(HZ)	(MW)	(MW)	(MW)	(%)	(HZ)
APRIL	17346	17424	78	0.44	49.96	18607	18861	254	1.35	49.97
MAY	17602	17717	115	0.65	49.95	18427	18721	294	1.57	50.00
JUNE	17013	17195	182	1.06	49.99	18302	18816	514	2.73	49.99
JULY	16603	16662	58	0.35	49.98	18338	18553	215	1.16	50.00
AUGUST	17381	17839	458	2.57	49.97	18418	18749	330	1.76	49.99
SEPTEMBER	17632	18102	470	2.60	49.93	18469	18638	169	0.91	49.99
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 .

All figures are in MU

	FROM	Cumulative from		to		31/Mar/17		During September-16			
		ENTITLEMENT (EX-BUS)	DRAWAL SCHEDULE (EX-BUS)	BILATERAL [EXPORT(-) / IMPORT(+)] (EX-SELLER BUS)	NET DRAWAL SCHEDULE (AFTER LOSS)	ACTUAL DRAWAL FROM GRID	ENTITLEMENT (EX-BUS)	DRAWAL SCHEDULE (EX-BUS)	BILATERAL [EXPORT(-) / IMPORT(+)] (EX-SELLER BUS)	NET DRAWAL SCHEDULE (AFTER LOSS)	ACTUAL DRAWAL FROM GRID
BSEB	FARAKKA STPS I	1677.30	1548.01				309.01	286.05			
	FARAKKA STPS III	694.64	653.72				72.91	64.15			
	KAHALGAON STPS I	1292.07	1162.17				174.52	160.99			
	KAHALGAON STPS II	288.03	284.89				47.57	46.97			
	TALCHER STPS I	1636.98	1588.69				264.11	258.59			
	BARH STPS II	2624.95	2624.95				284.70	284.70			
	RANGIT HEP	68.69	68.81				14.38	14.38			
	CHUKHA HEP	242.29	387.03				59.23	89.27			
	KIRUCHHU HEP	0.00	0.00				0.00	0.00			
	TALA HPS	733.94	480.22				190.66	165.32			
	TEESTA HEP	384.40	386.04				76.81	76.81			
	TOTAL	9643.28	9184.53	2608.38	11894.04	11916.90	1493.89	1447.23	592.05	1990.03	2006.57
JSEB	FARAKKA STPS I	293.35	309.44				84.38	53.80			
	FARAKKA STPS III	142.83	119.66				23.54	18.87			
	KAHALGAON STPS I	72.13	76.04				13.34	11.20			
	KAHALGAON STPS II	62.28	85.10				11.93	14.46			
	TALCHER STPS I	217.75	238.71				49.10	43.82			
	BARH STPS II	184.19	167.78				28.70	10.46			
	RANGIT HEP	50.48	26.21				5.48	5.48			
	CHUKHA HEP	74.75	139.89				21.47	32.36			
	KIRUCHHU HEP	85.57	0.00				0.00	0.00			
	TALA HPS	264.04	281.84				85.69	74.30			
	TEESTA HEP	654.51	224.07				44.58	44.58			
	TOTAL	2022.54	1787.26	875.13	2799.86	2837.61	368.20	309.33	136.75	466.97	453.48
DVC	FARAKKA STPS I	106.63	31.32				7.40	4.67			
	FARAKKA STPS III	182.22	127.94				24.04	20.40			
	KAHALGAON STPS I	48.86	14.81				2.84	1.58			
	KAHALGAON STPS II	251.93	31.29				7.29	3.88			
	TALCHER STPS I	146.29	27.20				6.55	3.60			
	RANGIT HEP	137.35	19.66				4.11	4.11			
	CHUKHA HEP	66.52	135.45				20.73	31.24			
	KIRUCHHU HEP	109.51	40.23				24.29	6.94			
	TALA HPS	121.80	136.25				41.42	35.92			
	TEESTA HEP	259.16	156.89				31.21	31.21			
	TOTAL	804.81	721.05	-6207.78	-5166.95	-5082.88	169.87	143.57	-944.99	-806.34	-781.51
GRIDCO	FARAKKA STPS I	757.68	699.75				139.59	129.63			
	FARAKKA STPS III	350.09	325.19				58.11	55.83			
	KAHALGAON STPS I	486.94	430.83				65.77	61.73			
	KAHALGAON STPS II	151.57	137.77				25.03	23.49			
	TALCHER STPS (Stg-I)	1283.69	1282.55				207.11	207.11			
	TALCHER STPS (Stg-II)	743.12	728.54				97.25	95.45			
	BARH STPS II	581.69	462.12				59.53	38.04			
	RANGIT HEP	0.00	0.00				0.00	0.00			
	CHUKHA HEP	124.21	198.41				30.36	45.77			
	KIRUCHHU HEP	0.00	0.00				0.00	0.00			
	TALA HPS	122.32	104.52				31.78	27.55			
	TEESTA HEP	372.28	373.88				74.38	74.38			
WSEDCO	TOTAL	4973.60	4743.56	-182.09	4426.56	4565.14	788.92	758.98	-128.30	605.30	607.38
	FARAKKA STPS I	1680.53	1229.66				309.62	241.95			
	FARAKKA STPS III	657.28	397.95				109.09	77.28			
	KAHALGAON STPS I	28.37	28.62				3.83	3.82			
	KAHALGAON STPS II	53.16	58.10				8.78	8.84			
	TALCHER STPS I	397.64	364.16				64.15	63.07			
	RANGIT HEP	55.62	55.72				11.64	11.64			
	CHUKHA HEP	260.44	416.03				63.66	95.96			
	KIRUCHHU HEP	94.38	40.23				24.29	6.94			
	TALA HPS	1100.92	940.71				286.00	247.98			
	TEESTA HEP	433.58	435.43				86.63	86.63			
	TOTAL	4761.93	3966.62	3610.46	7531.53	7794.97	967.70	844.12	385.01	1226.50	1280.78
SIKKIM	FARAKKA STPS I	87.07	45.70				16.04	7.49			
	FARAKKA STPS III	0.00	0.00				0.00	0.00			
	KAHALGAON STPS I	47.85	23.08				6.46	2.26			
	KAHALGAON STPS II	19.09	9.11				3.15	0.97			
	TALCHER STPS I	95.25	78.82				15.37	15.06			
	BARH STPS II	59.70	10.71				6.11	0.58			
	RANGIT HEP	26.16	26.21				5.48	5.48			
	CHUKHA HEP	18.15	29.00				4.44	6.69			
	KIRUCHHU HEP	0.00	0.00				0.00	0.00			
	TEESTA HEP	238.49	239.51				47.65	47.65			
	TOTAL	591.76	462.13	-221.76	223.94	198.82	104.70	86.18	-43.33	39.21	33.17
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	-1584.93	-1125.65				-266.09	-148.77			
	TALCHER STPS I	0.00	0.00				0.00	0.00			
	BARH STPS II	0.00	0.00				0.00	0.00			
	TOTAL	-1584.93	-1125.65	2563.39	-238.20	-77.39	-266.09	-148.77	994.30	708.73	359.29
SR	FARAKKA STPS I	-68.60	-106.26				-12.70	-14.21			
	KAHALGAON STPS I	-21.48	-46.18				-2.92	-3.59			
	KAHALGAON STPS II	0.00	0.00				0.00	0.00			
	TALCHER STPS STG-I	-33.55	-33.90				-5.44	-5.44			
	TALCHER STPS STG-II	728.54	728.54				95.45	95.45			
	TOTAL	604.91	542.21	-6183.37	-2986.61	-2225.84	74.40	72.21	-1086.58	-733.11	-420.66
NR	FARAKKA STPS I	-390.98	-325.35				-70.02	-58.85			
	KAHALGAON STPS I	-960.82	-766.37				-129.41	-107.17			
	KAHALGAON STPS II	-3265.88	-2771.44				-537.70	-473.37			
	TALCHER STPS I	0.00	0.00				0.00	0.00			
	TALA HPS	-431.73	-368.91				-112.16	-97.25			
	TOTAL	-5049.42	-4232.07	-6938.38	-11042.75	-7721.26	-849.29	-736.64	-1681.17	-2400.46	-1616.00
WR+SR+NR (GRAND TOTAL)		-6029.44	-4815.52	-10558.36	-14267.56	-10024.49	-1040.98	-813.20	-1773.46	-2424.85	-1677.37
NER	FARAKKA STPS I	-176.88	-159.69				-32.60	-30.13			
	FARAKKA STPS III	-1.88	-1.18				-0.31	-0.08			
	KAHALGAON STPS I	-91.20	-74.26				-12.32	-11.20			
	KAHALGAON STPS II	-299.91	-230.16				-49.53	-48.39			
	TALCHER STPS I	-117.11	-95.50				-18.89	-17.22			
TOTAL		-806.00	-675.98	1007.56	334.57	-1753.46	-113.65	-107.01	178.29	72.43	-537.81

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF SEP-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	34.04	30.64	463.94	417.55
		Thermal Total	440.00	430.00	34.04	30.64	463.94	417.55
	Hydro	Kosi	20.00	20.00	2.64	2.64	7.81	7.81
		Dehri & others	24.90	24.90	0.00	0.00	0.00	0.00
		Total Hydro	44.90	44.90	2.64	2.64	7.81	7.81
	Total BIHAR		484.90	474.90	36.68	33.28	471.75	425.36
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	117.60	101.06	724.99	622.51
JSEB	Thermal	Patratu	840.00	770.00	43.28	36.69	227.87	192.18
	Hydro	Subarnrekha (U#1,2)	130.00	130.00	18.24	18.24	26.09	26.09
	Total		970.00	900.00	61.52	54.93	253.96	218.27
DVC	Thermal	Bokaro-B(1,2,3)	630.00	630.00	122.19	106.74	835.72	730.52
		Chandrapura (1,2,3)	420.00	390.00	155.80	140.25	1071.66	965.62
		Chandrapura(U7 # 8)	500.00	500.00	310.60	281.65	1742.85	1580.73
		Durgapur(3,4)	350.00	350.00	17.58	13.54	145.69	125.55
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	466.05	413.75	3104.99	2754.85
		Mezia(U # 7,8)	1000.00	1000.00	297.34	278.85	3192.61	3026.38
		Durgapur STPS (U#1,2)	1000.00	1000.00	623.75	592.53	3107.24	2943.92
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	232.21	212.68	944.27	860.25
		Koderma STPS (U#1,2)	1000.00	1000.00	314.14	294.73	2012.33	1889.67
	Total Thermal		7440.00	7410.00	2539.66	2334.72	16157.37	14876.12
	Hydro	Maithon (U#1,2,3)	63.20	63.20	38.10	38.05	72.43	72.17
		Panchet (U#1,2)	80.00	80.00	39.03	38.85	94.00	93.23
		Tilaya (U#1,2)	4.00	4.00	2.01	2.00	2.01	1.99
		Hydro Total	147.20	147.20	79.14	78.90	168.44	167.38
Total DVC		7587.20	7557.20	2618.80	2413.63	16325.82	15043.50	
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	540.00	450.00	169.84	150.06	871.82	764.53
		Santalidih TPS(U#5&6)	500.00	500.00	314.41	288.29	1697.81	1551.29
		Kolaghat TPS	1260.00	1260.00	608.26	543.31	3515.70	3141.08
		Bakreswar TPP	1050.00	1050.00	554.44	497.28	3866.41	3474.73
		Sagardighi TPP	1100.00	1100.00	346.10	301.41	2202.64	1927.47
		Thermal Total	4450.00	4360.00	1993.05	1780.35	12154.39	10859.10
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	26.82	26.82	130.04	130.04
		Ramam (4x12.73)	51.00	51.00	35.76	35.76	154.51	154.51
		Teesta C.F. (3x3x7.3)	67.30	67.30	0.00	0.00	26.64	26.64
		Small hydro	12.00	12.00	0.00	0.00	0.00	0.00
		Purulia PSS (4x225)	900.00	900.00	101.77	101.77	581.48	581.48
		Total Hydro	1065.30	1065.30	164.35	164.35	892.67	892.67
DPL	Thermal	DPPS (110+300+250 *)	660.00	660.00	119.15	104.04	1102.22	982.76
* Synchronised on 31.03.2014								

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

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross Energy Generation in MU	Net Energy Generation in MU	Cummulative Gross Energy Generation upto Current Month (2016-17) in MU	Cummulative Net Energy Generation upto Current Month (2016-17) in MU
CESC	Thermal	Titagarh (4x60)	240.00	240.00	17.00	15.24	205.34	185.28
		Southern (2x67.5)	135.00	135.00	42.00	37.87	296.76	268.81
		Budge-Budge (3x250)	750.00	750.00	464.00	425.71	3122.63	2872.37
		Total CESC	1125.00	1125.00	523.00	478.82	3624.73	3326.46
HEL	Thermal	HEL	600.00	600.00	373.95	344.18	2100.24	1909.71
		Total West Bengal	8192.30	8102.30	3347.88	3046.12	20213.10	18309.55
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	160.96	143.85	961.76	857.81
		Talcher-II	220.00	220.00	157.52	140.77	890.42	794.16
		Total Thermal	470.00	460.00	318.48	284.62	1852.18	1651.97
OPGC	Thermal	IB TPS	420.00	420.00	253.92	226.47	1559.26	1393.11
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	107.45	107.18	342.80	341.30
		Hirakud-II (Chiplima)	72.00	72.00	30.33	30.28	107.68	107.39
		Balimela (6x60+2x75)	510.00	510.00	93.82	93.42	474.54	472.19
		Rengali (5x50)	250.00	250.00	167.55	167.41	432.83	431.38
		Upper Kolab (4x80)	320.00	320.00	56.53	56.38	335.48	334.07
		Indravati HPS (4x150)	600.00	600.00	184.73	184.45	847.62	846.04
		Mckd.(Odisha drawal)	57.38	57.38	31.84	31.84	151.90	151.90
		Total Hydro	2084.88	2084.88	672.26	670.95	2692.86	2684.26
		Total Odisha	2974.88	2964.88	990.73	955.57	4545.03	4336.23
(**) SIKKIM	Hydro	Mini Hydro	14.00	14.00	3.00	3.00	18.00	18.00
		^ Diesel	7.10	7.10				
NTPC	Thermal	FSTPP# I&II (3x200+2x500)	1600.00	1600.00	905.40	837.49	4859.00	4494.58
		FSTPP (U# 6)	500.00	500.00	294.87	272.76	1752.44	1621.00
		KhSTPP (4x210+3x500)	2340.00	2340.00	1239.51	1146.54	7999.09	7399.16
		TSTPP (2x500)	1000.00	1000.00	675.39	624.73	4097.16	3789.87
		BARH STPS II (2X660)	1320.00	1320.00	344.94	319.07	3485.43	3224.02
		Total NTPC	6760.00	6760.00	3460.11	3200.60	22193.12	20528.63
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	42.60	42.60	206.68	206.68
		Teesta (3x170)	510.00	510.00	366.63	366.63	1856.62	1856.62
		TLDP -(4x33+4x40)	292.00	292.00	174.38	174.38	746.69	746.69
		Total NHPC	862.00	862.00	583.60	583.60	2809.98	2809.98
IPP		MPL (U#1&2)	1050.00	1050.00	386.59	363.12	3440.54	3244.27
IPP		SSL (U#1,2,3 & 4) (4x600) *	2400.00	2400.00	529.84	479.45	3302.75	3017.79
		APNRL (U#1,2)	540.00	540.00	293.25	266.86	1809.68	1656.70
		GMR (3x350)	1050.00	1050.00	450.28	414.51	2912.58	2671.26
		JITPL (2X600)	1200.00	1200.00	593.13	561.77	3823.08	3589.36
		CHUZACHEN** (2x55)	110.00	110.00	80.71	80.55	373.93	373.18
		JORETHANG (2x48)	96.00	96.00	66.69	66.69	269.06	269.06
EASTERN REGIONAL		Total Thermal (E.R)	29865.00	29655.00	12029.33	11007.91	77448.94	70939.48
		Total Hydro (E.R)	4846.28	4846.28	1670.62	1668.92	7258.83	7248.42
		Total Diesel	7.10	7.10	0.00	0.00	0.00	0.00
		Total Solar	10.00	10.00	0.86	0.86	6.26	6.26
		TOTAL (E.R)	34728.38	34518.38	13700.82	12677.69	84714.04	78194.17
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	262.90	262.90	1106.06	1106.06
	Hydro	Kurichu (4x15)	60.00	60.00	60.68	60.68	261.79	261.79
	Hydro	TALA (6x170)	1020.00	1020.00	632.53	632.53	2419.28	2419.28
	Hydro	DAGACHU (2x63)	126.00	126.00	56.04	56.04	252.74	252.74
		Grand Total	36294.38	35994.38	14712.97	13690	88753.92	82234.05

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 NIL to the Grid in addition to 11.33 MU bilateral exchange to ODISHA.

* CESC informed thast 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

Maithon 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 SEP-2016

ORGANI- SATION	TYPE	POWER	INSTALLED	EFFECTIVE	Gross	PLF	Cummulative Gross	Cummulative PLF
		STATION	CAPACITY	CAPACITY	Energy	of Current	Energy Generation	upto Current
			(in MW)	(in MW)	Generation	Month	upto Current Month	Month
(%)								
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	0.00	0.00	0.00	0.00
		Muzaffarpur	220.00	220.00	34.04	21.49	463.94	48.01
		Thermal Total	440.00	430.00	34.04	10.99	463.94	24.57
	Hydro	Kosi	20.00	20.00	2.64		7.81	
		Dehri & others	24.90	24.90	0.00		0.00	
		Total Hydro	44.90	44.90	2.64		7.81	
	Total BIHAR		484.90	474.90	36.68		471.75	
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	117.60	38.89	724.99	39.30
JSEB	Thermal	Patratu	840.00	770.00	43.28	7.81	227.87	6.74
	Hydro	Subarnrekha (U#1,2)	130.00	130.00	18.24		26.09	
	Total		970.00	900.00	61.52		253.96	
DVC	Thermal	Bokaro-B(1,2,3)	630.00	630.00	122.19	26.94	835.72	30.20
		Chandrapura (1,2,3)	420.00	390.00	155.80	55.48	1071.66	62.56
		Chandrapura(U7 # 8)	500.00	500.00	310.60	86.28	1742.85	79.36
		Durgapur(3,4)	350.00	350.00	17.58	6.97	145.69	9.48
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	466.05	48.31	3104.99	52.76
		Mezia(U # 7,8)	1000.00	1000.00	297.34	41.30	3192.61	72.69
		Durgapur STPS (U#1,2)	1000.00	1000.00	623.75	86.63	3107.24	70.75
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	232.21	26.88	944.27	17.92
		Koderma STPS (U#1,2)	1000.00	1000.00	314.14	43.63	2012.33	45.82
	Total Thermal		7440.00	7410.00	2539.66	47.60	16157.37	51.04
	Hydro	Maithon (U#1,2,3)	63.20	63.20	38.10		72.43	
		Panchet (U#1,2)	80.00	80.00	39.03		94.00	
		Tilaya (U#1,2)	4.00	4.00	2.01		2.01	
		Hydro Total	147.20	147.20	79.14		168.44	
		Total DVC		7587.20	7557.20	2618.80		16325.82
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	540.00	450.00	169.84	52.42	871.82	44.11
		Santalidih TPS(U#5&6)	500.00	500.00	314.41	87.34	1697.81	77.31
		Kolaghat TPS	1260.00	1260.00	608.26	67.05	3515.70	63.53
		Bakreswar TPP	1050.00	1050.00	554.44	73.34	3866.41	83.84
		Sagardighi TPP	1100.00	1100.00	346.10	43.70	2202.64	58.91
		Thermal Total	4450.00	4360.00	1993.05	63.49	12154.39	67.31
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	26.82		130.04	
		Ramam (4x12.73)	51.00	51.00	35.76		154.51	
		Teesta C.F. (3x3x7.3)	67.30	67.30	0.00		26.64	
		Small hydro	12.00	12.00	0.00		0.00	
		Purulia PSS (4x225)	900.00	900.00	101.77		581.48	
		Total Hydro	1065.30	1065.30	164.35		892.67	
		TLDP -(4x33+4x40)	292.00	292.00	174.38		746.69	
DPL	Thermal	DPPS (110+300+250 *)	660.00	660.00	119.15	25.07	1102.22	38.02

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

ORGANISATION	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 (4x60)	240.00	240.00	17.00	24.31	205.34	19.48
		Southern (2x67.5)	135.00	135.00	42.00	43.21	296.76	50.05
		Budge-Budge (3x250)	750.00	750.00	464.00	85.93	3122.63	94.80
		Total CESC	1125.00	1125.00	523.00	64.57	3624.73	73.36
HEL	Thermal		600.00	600.00	373.95	86.56	2100.24	79.70
		Total West Bengal	8192.30	8102.30	3347.88		20213.10	
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	160.96	93.15	961.76	91.24
		Talcher-II	220.00	220.00	157.52	99.44	890.42	92.15
		Total Thermal	470.00	460.00	318.48	96.16	1852.18	91.68
OPGC	Thermal	IB TPS	420.00	420.00	253.92	83.97	1559.26	84.53
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	107.45		342.80	
		Hirakud-II (Chiplima)	72.00	72.00	30.33		107.68	
		Balimela (6x60+2x75)	510.00	510.00	93.82		474.54	
		Rengali (5x50)	250.00	250.00	167.55		432.83	
		Upper Kolab (4x80)	320.00	320.00	56.53		335.48	
		Indravati HPS (4x150)	600.00	600.00	184.73		847.62	
		Mckd.(Odisha drawal)	57.38	57.38	31.84		151.90	
		Total Hydro	2084.88	2084.88	672.26		2692.86	
		Total Odisha	2974.88	2964.88	990.73		4545.03	
(**) SIKKIM	Hydro	Mini Hydro	14.00	14.00	3.00		18.00	
		^ Diesel	7.10	7.10				
NTPC	Thermal	FSTPP# I&II (3x200+2x500)	1600.00	1600.00	905.40	78.59	4859.00	69.15
		FSTPP (U# 6)	500.00	500.00	294.87	81.91	1752.44	79.80
		KhSTPP (4x210+3x500)	2340.00	2340.00	1239.51	73.57	7999.09	77.83
		TSTPP (2x500)	1000.00	1000.00	675.39	93.80	4097.16	93.29
		BARH STPS II (2X660)	1320.00	1320.00	344.94	36.29	3485.43	60.12
		Total NTPC	6760.00	6760.00	3460.11	71.09	22193.12	74.75
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	42.60		206.68	
		Teesta (3x170)	510.00	510.00	366.63		1856.62	
		TLDP -(4x33+4x40)	292.00	292.00	174.38		746.69	
		Total NHPC	862.00	862.00	583.60		2809.98	
IPP	Thermal	MPL (U#1&2)	1050.00	1050.00	386.59	51.14	3440.54	74.61
IPP		SSL (U#1,2,3 & 4) (4x600) *	2400.00	2400.00	529.84	30.66	3302.75	31.33
		APNRL (U#1,2)	540.00	540.00	293.25	75.42	1809.68	76.30
		GMR (3x350)	1050.00	1050.00	450.28	59.56	2912.58	94.74
		JITPL (2X600)	1200.00	1200.00	593.13	68.65	3823.08	72.54
		CHUZACHEN** (2x55)	110.00	110.00	80.71		373.93	
		JORETHANG (2x48)	96.00	96.00	66.69		269.06	
EASTERN REGIONAL		Total Thermal (E.R)	29865.00	29655.00	12029.33	57.11	77448.94	60.95
		Total Hydro (E.R)	4846.28	4846.28	1670.62		7258.83	
		Total Diesel	7.10	7.10	0.00		0.00	
		Total Solar	10.00	10.00	0.86		6.26	
		TOTAL (E.R)	34728.38	34518.38	13700.82		84714.04	
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	262.90		1106.06	
	Hydro	Kurichu (4x15)	60.00	60.00	60.68		261.79	
	Hydro	TALA (6x170)	1020.00	1020.00	632.53		2419.28	
	Hydro	DAGACHU (2x63)	126.00	126.00	56.04		252.74	
		Grand Total	36294.38	35994.38	14712.97		88753.92	

➤ 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
REGIONAL PEAK DURING THE MONTH OF SEP-2016 (1-9-2016)**

Date **1-Sep-16**
Time **22.00** **Hrs.**
Frequency **50.02** **Hz.**

(All Fig. in MW)

System/State	Installed Capacity	Effective Capacity	Hydro	Thermal	Total
BSPHCL	485	475	0	90	90
JUSNL	1390	1320	45	162	207
DVC	7587	7557	106	2930	3037
ODISHA	2975	2965	1277	785	2062
WBSEDCL	5515	5425	753	2167	2920
TLDP	292	292	0	0	0
HEL HALDIA	600	600	0	516	516
CESC	1125	1125	0	748	748
DPL	660	660	0	216	216
SIKKIM	14	14	0	0	0
NTPC	6760	6760	0	4702	4702
NHPC	862	862	572	0	572
CHUKHA	360	270	321	0	321
KURICHU	60	60	83	0	83
TALA	1020	1020	772	0	772
SEL	2400	2400	0	471	471
APNRL	540	540	0	202	202
Kamalganga (GMR)	1050	1050	0	199	199
JITPL	1200	1200	0	1092	1092
Chuzachen	110	110	114	0	114
Jorethang	96	96	99	0	99
<u>Daghachu</u>	126	126	85	0	85
<u>Total</u>	36294	35994	4228	14721	18949
Import From Captive:					1023
Export To:					
NER					176
SR					740
WR					-1234
NR					1308.79
Total					1503
					18469

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

Hourly Load Generation Data OF ER On Regional Peak Day During The Month of SEP-2016 (1-9-2016)

(All Figures in MW)

Generation					Import	Net	Net	Demand	Freq.	Load	
Hrs.	Hydro	Thermal	GT	Total	from Captive	Import From CHPS, KHPS & TALA	Export to other region	Met	Correction	Shed	Requirement
1	2263	19323	0	21586	958	1176	1827	16579	-12	83	16650
2	2104	18926	1	21032	912	1167	1798	16189	-10	80	16259
3	1697	19007	2	20706	925	1171	1645	15980	3	78	16060
4	1637	18913	3	20553	867	1172	1569	15918	-43	78	15953
5	1591	18949	4	20544	938	1180	1563	15926	-26	80	15979
6	1649	18457	5	20111	971	1208	1900	15631	34	78	15744
7	1738	18318	6	20062	979	1206	2571	14961	14	106	15081
8	1645	18407	7	20059	1018	1309	2489	14972	-35	113	15049
9	1608	18767	8	20382	986	1332	2247	15246	-35	105	15317
10	1645	19042	9	20697	1055	1340	2387	15334	-5	122	15451
11	1618	18748	10	20377	1056	1322	2518	14941	-22	111	15029
12	1675	18630	11	20317	1018	1311	2574	14658	-3	95	14750
13	1636	18797	12	20445	1001	1321	2528	14687	-5	104	14786
14	1497	18920	13	20430	1067	1334	2537	14705	-13	104	14796
15	1446	19147	14	20607	1053	1251	2221	14930	-20	103	15013
16	1545	18908	15	20468	1045	1156	1722	15376	-4	113	15485
17	1536	18895	16	20448	975	1158	1867	15477	-5	377	15849
18	1615	19741	17	21373	957	1158	1841	15807	-3	366	16170
19	2844	21325	18	24187	973	1191	1534	18089	11	433	18534
20	3167	21261	19	24448	982	1193	1538	18341	14	250	18606
21	2982	20747	20	23749	977	1207	988	18329	-18	201	18513
22	3051	20520	21	23593	1023	1177	990	18469	-15	183	18638
23	2940	20363	22	23325	987	1186	1231	18228	-3	188	18413
24	2524	19812	23	22359	978	1182	1247	17518	-25	208	17702

Hourly Load Generation Data of ER On Regional Lean Day During The Month of SEP-2016 (25-9-2016)

(All Figures in MW)

Generation					Import	Net	Net	Demand	Freq.	Load	
Hrs.	Hydro	Thermal	GT	Total	from Captive	Import From CHPS, KHPS & TALA	Export to other region	Met	Correction	Shed	Requirement
1	2076	13598	0	15674	862	1358	4535	14326	21	91	14438
2	2067	13163	1	15231	857	1358	4334	13940	12	91	14043
3	1948	13142	2	15092	799	1361	4344	13747	12	80	13838
4	1926	12853	3	14781	792	1361	4364	13214	-7	80	13287
5	1931	12847	4	14782	796	1361	4196	13510	13	80	13602
6	2131	12343	5	14480	731	1334	4165	13272	37	64	13373
7	2217	12564	6	14787	676	1319	4430	13316	54	61	13431
8	2148	12632	7	14788	669	1329	4124	13459	-2	43	13500
9	2083	12818	8	14909	628	1335	4082	13573	25	46	13643
10	2078	12778	9	14865	679	1336	3990	13725	54	57	13836
11	2018	12829	10	14857	702	1333	3828	13951	21	43	14014
12	1954	12664	11	14629	643	1336	3658	13793	18	47	13857
13	1950	12769	12	14731	663	1339	4058	13581	26	115	13721
14	1886	12722	13	14621	650	1349	4264	13301	17	45	13364
15	1860	12787	14	14660	638	1346	3965	13602	40	44	13686
16	1988	13021	15	15024	588	1343	4101	13774	33	40	13846
17	2073	12760	16	14849	552	1335	4093	13609	35	204	13847
18	2963	12628	17	15608	635	1323	3091	15594	37	383	16014
19	3483	12837	18	16338	724	1310	2103	17498	86	911	18495
20	3570	12792	19	16381	684	1320	2375	17293	47	881	18221
21	3323	12771	20	16114	837	1273	2559	16949	49	886	17883
22	2838	12760	21	15619	1008	1344	2625	16607	36	760	17403
23	2257	12708	22	14987	962	1344	2459	16088	6	776	16869
24	2042	12674	23	14738	1032	1343	2612	15572	8	329	15909

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

POWER CUT / RESTRICTIONS

BSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 62.00 MU
JSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 1.25 MU
DVC	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 10.62 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 14.54 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

Sep-16

DATE	HOURS										INST. FREQ.				15 MIN. INTEGRATED			
	00	05	10	17	22	00	49.9	>50.05	49.9									
	TO	TO	TO	TO	TO	TO	<49.9	TO	TO	MAX	HRS.	MIN	HRS.	MAX	HRS.	MIN	HRS.	
	05	10	17	22	24	24		50.1	50.05	HZ		HZ		HZ		HZ		
01-Sep	50.03	50.01	50.02	50.00	50.02	50.02	3.38	61.68	34.94	61.68	50.16	4:02	49.76	18:12	50.13	0:00	49.90	0:00
02-Sep	50.01	50.00	50.00	50.02	50.02	50.01	1.61	72.38	26.01	72.38	50.24	18:01	49.81	19:26	50.12	0:00	49.89	0:00
03-Sep	50.01	50.00	49.99	49.99	49.97	49.99	2.32	79.34	18.34	79.34	50.18	18:00	49.78	19:09	50.07	0:00	49.88	0:00
04-Sep	49.98	50.00	50.01	50.00	49.98	50.00	2.19	78.22	19.59	78.22	50.21	17:05	49.80	21:07	50.12	0:00	49.91	0:00
05-Sep	49.97	49.97	49.99	50.00	49.99	49.98	4.68	80.59	14.73	80.59	50.24	18:32	49.82	16:47	50.08	0:00	49.91	0:00
06-Sep	49.97	49.98	49.95	49.96	49.97	49.97	11.32	78.36	10.32	78.36	50.17	18:01	49.78	16:44	50.06	0:00	49.85	0:00
07-Sep	49.96	49.96	49.94	49.90	49.90	49.94	24.93	69.75	5.32	69.75	50.16	13:02	49.69	18:57	50.05	0:00	49.82	0:00
08-Sep	49.95	49.99	49.96	49.97	50.00	49.97	9.73	78.64	11.63	78.64	50.14	6:02	49.78	19:12	50.06	0:00	49.88	0:00
09-Sep	49.96	49.99	50.00	50.01	50.02	49.99	2.84	76.31	20.85	76.31	50.17	13:01	49.83	4:37	50.09	0:00	49.88	0:00
10-Sep	50.01	50.02	50.00	50.03	50.01	50.01	0.58	71.78	27.64	71.78	50.19	18:01	49.87	14:14	50.10	0:00	49.94	0:00
11-Sep	49.98	50.01	50.01	50.01	50.02	50.01	0.72	74.27	25.01	74.27	50.21	6:02	49.85	3:11	50.09	0:00	49.93	0:00
12-Sep	50.02	49.99	50.00	50.00	49.99	50.00	2.91	72.22	24.87	72.22	50.20	18:01	49.80	18:09	50.10	0:00	49.93	0:00
13-Sep	49.96	49.98	49.98	50.01	50.04	49.98	3.25	80.60	16.15	80.60	50.19	6:03	49.82	2:17	50.07	0:00	49.91	0:00
14-Sep	49.99	50.01	49.97	50.00	50.00	49.99	2.71	77.68	19.61	77.68	50.17	18:01	49.83	11:46	50.08	0:00	49.91	0:00
15-Sep	50.01	50.01	50.01	50.02	50.04	50.01	0.42	73.41	26.17	73.41	50.22	13:03	49.80	12:48	50.08	0:00	49.94	0:00
16-Sep	49.98	50.00	50.00	49.99	49.98	49.99	3.10	79.01	17.89	79.01	50.16	6:02	49.83	0:24	50.07	0:00	49.88	0:00
17-Sep	49.98	50.03	49.99	50.00	50.01	50.00	2.67	75.22	22.11	75.22	50.22	18:01	49.82	14:13	50.09	0:00	49.92	0:00
18-Sep	49.98	50.00	50.00	49.98	49.98	49.99	2.90	80.13	16.97	80.13	50.17	18:01	49.67	20:22	50.07	0:00	49.92	0:00
19-Sep	49.98	49.97	49.94	49.94	49.97	49.96	17.27	73.17	9.56	73.17	50.13	18:01	49.72	18:53	50.07	0:00	49.76	0:00
20-Sep	49.97	49.97	49.98	49.98	50.01	49.98	7.49	75.69	16.82	75.69	50.17	13:00	49.85	17:50	50.09	0:00	49.84	0:00
21-Sep	49.99	49.99	49.99	50.01	50.05	50.00	1.91	77.23	20.86	77.23	50.20	22:50	49.86	9:41	50.14	0:00	49.94	0:00
22-Sep	50.03	50.01	50.01	50.01	50.00	50.02	0.88	67.34	31.78	67.34	50.19	13:01	49.85	18:23	50.10	0:00	49.96	0:00
23-Sep	50.00	50.00	49.99	50.00	50.01	50.00	1.79	78.70	19.51	78.70	50.16	18:03	49.85	13:36	50.08	0:00	49.93	0:00
24-Sep	50.01	50.00	50.02	50.00	50.03	50.01	1.30	72.27	26.43	72.27	50.22	15:04	49.78	18:42	50.10	0:00	49.91	0:00
25-Sep	50.01	50.03	50.01	50.00	50.00	50.01	1.22	73.18	25.60	73.18	50.22	6:04	49.85	20:50	50.15	0:00	49.95	0:00
26-Sep	49.97	49.97	49.97	49.93	50.01	49.96	11.37	79.12	9.51	79.12	50.16	14:01	49.70	19:04	50.06	0:00	49.80	0:00
27-Sep	49.93	49.94	49.95	49.96	49.98	49.95	18.03	75.11	6.86	75.11	50.14	16:03	49.74	0:45	50.04	0:00	49.82	0:00
28-Sep	49.98	49.93	49.94	49.91	49.99	49.95	20.57	71.58	7.85	71.58	50.15	13:01	49.73	18:43	50.05	0:00	49.82	0:00
29-Sep	50.01	49.98	50.00	49.99	49.99	50.00	3.54	73.95	22.51	73.95	50.21	13:02	49.81	6:15	50.11	0:00	49.88	0:00
30-Sep	49.98	49.98	49.97	49.97	49.99	49.98	7.63	77.71	14.66	77.71	50.14	21:53	49.80	5:16	50.09	0:00	49.87	0:00
MAX	50.03	50.03	50.02	50.03	50.05	50.02	24.93	80.60	34.94	80.60	50.24		49.87		50.15		49.96	
MIN	49.93	49.93	49.94	49.90	49.90	49.94	0.42	61.68	5.32	61.68	50.13		49.67		50.04		49.76	
AVG	49.99	49.99	49.99	49.99	50.00	49.99	5.84	75.15	19.00	75.15	50.18		49.80		50.09		49.89	

SUMMARY:Avg. Frequency : **49.99 Hz.**Instantaneous Frequency :

Maximum Frequency : 50.24 Hz On 00/01/00 at 18:01 Hrs.

Minimum Frequency : 49.67 Hz On 00/01/00 at 18:53 Hrs.

15 Minutes Integrated Frequency :

Maximum Frequency : 50.15 Hz On 00/01/00 at 00:00 Hrs.

Minimum Frequency : 49.76 Hz On 00/01/00 at 00:00 Hrs

Frequency Distribution in % of Time			
Hz	<49.9	49.9-50.05	>50.05
% of Time	5.84	75.15	19.00

VOLTAGE ANALYSIS

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

(All figs. in kV)

PGCIL	FARAKKA		SUBHASGRAM		DURGAPUR		JEERAT	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	418	395	423	406	418	370	427	398

PGCIL	FARAKKA		SUBHASGRAM		DURGAPUR		JEERAT	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	422	387	431	412	419	404	424	374

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
SEP-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	
			(30-9-16)	(30-9-15)		
Hirakud	192	180	192.01	191.76	189.06	01.9.16
Balimela	462	439	458.85	458.78	456.32	01.9.16
Rengali	123	109	122.58	122.60	121.54	01.9.16
Upperkolab	858	844	856.31	856.18	854.10	01.9.16
Indravati	642	625	639.11	639.01	636.91	01.9.16
Subernrekha	590	580	589.42	587.01	589.27	01.9.16

B.

**CPP/IPP IMPORT by Eastern Region Constituents during
SEP-2016**

(All figs. are in MU)

System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
West Bengal	48.45	24.52	0	0	0	0	0	204.07	277.04
ODISHA	0	0	15.59	11.33	14.85	26.21	0	171.34	239.32
DVC	0	0	0	0	0	0	34.40	0	34.40
TOTAL	48.45	24.52	15.59	11.33	14.85	26.21	34.40	375.40	550.76

C.

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

(All figs. are in MU)

IPP	TPDDL	WBSEDCL	DVC *	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	105.55	110.09	43.97	0.00	0	0	104.20	363.81
Sterlite	0	0	0	0	11.33	0	0.00	11.33
APNRL	0	60.14	0		0.00	135.23	0	195.37
GMR	0	0.37	0	0.00	0.00	0	163.69	164.06
Total	105.55	170.23	43.97	0.00	11.33	135.23	104.20	570.51

(*)--During this month, DVC has drawn 43.97 MU of MPL energy which is included in its exchange with Grid.

D.

Monthwise Gross Generation from Chuzachen HEP

April'16	May'16	June'16	July'16	Aug'16	Sep'16	Cum. Total (2016-17)
29.18	43.87	62.48	83.16	74.53	80.71	373.93
Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	
0.00	0.00	0.00	0.00	0.00	0.00	

STATUS OF IMPORTANT TRANSMISSION LINES UNDER CONSTRUCTION

(As on 30.09.16)

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.
1.2	Supplementary Transmission System Associated with DVC & Maithon Right Bank Project				
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	
2.2	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)
2.3	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.
2.3.2	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 Kishenganj S/s.
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 (2nd 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

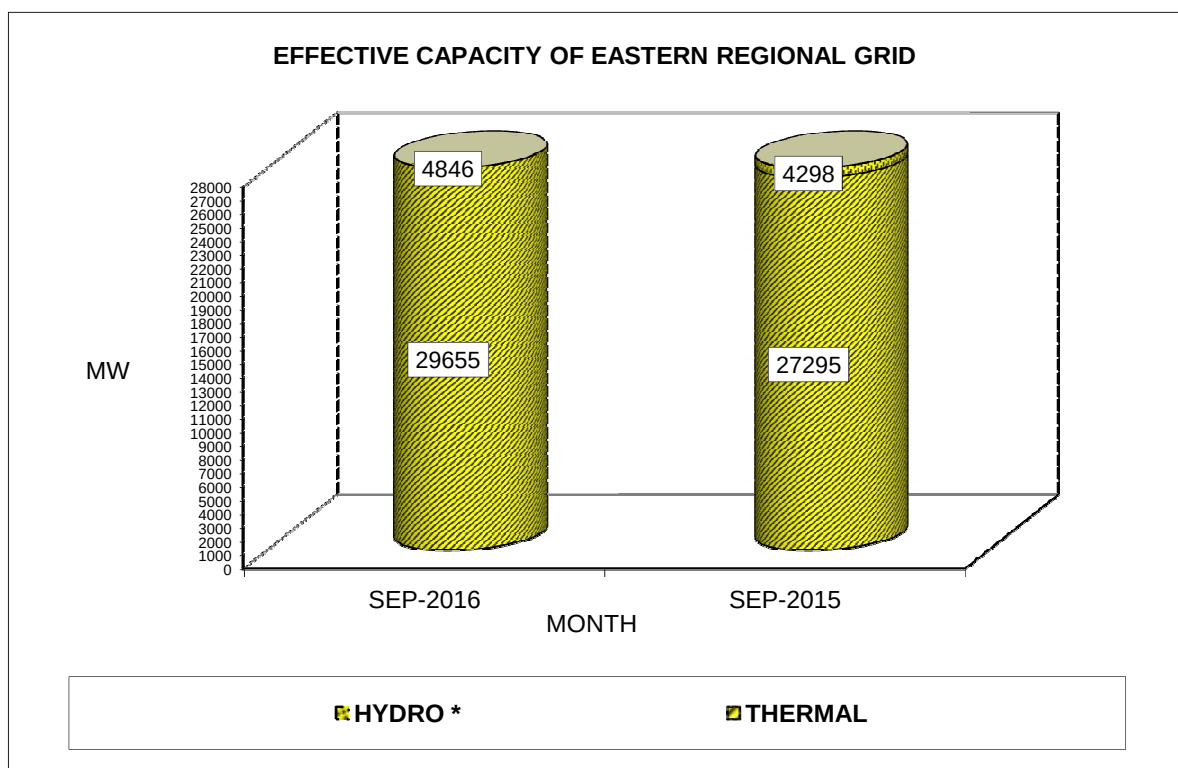
ANNEXURE-VI

COMMISSIONING SCHEDULE OF NEW GENERATING STATION

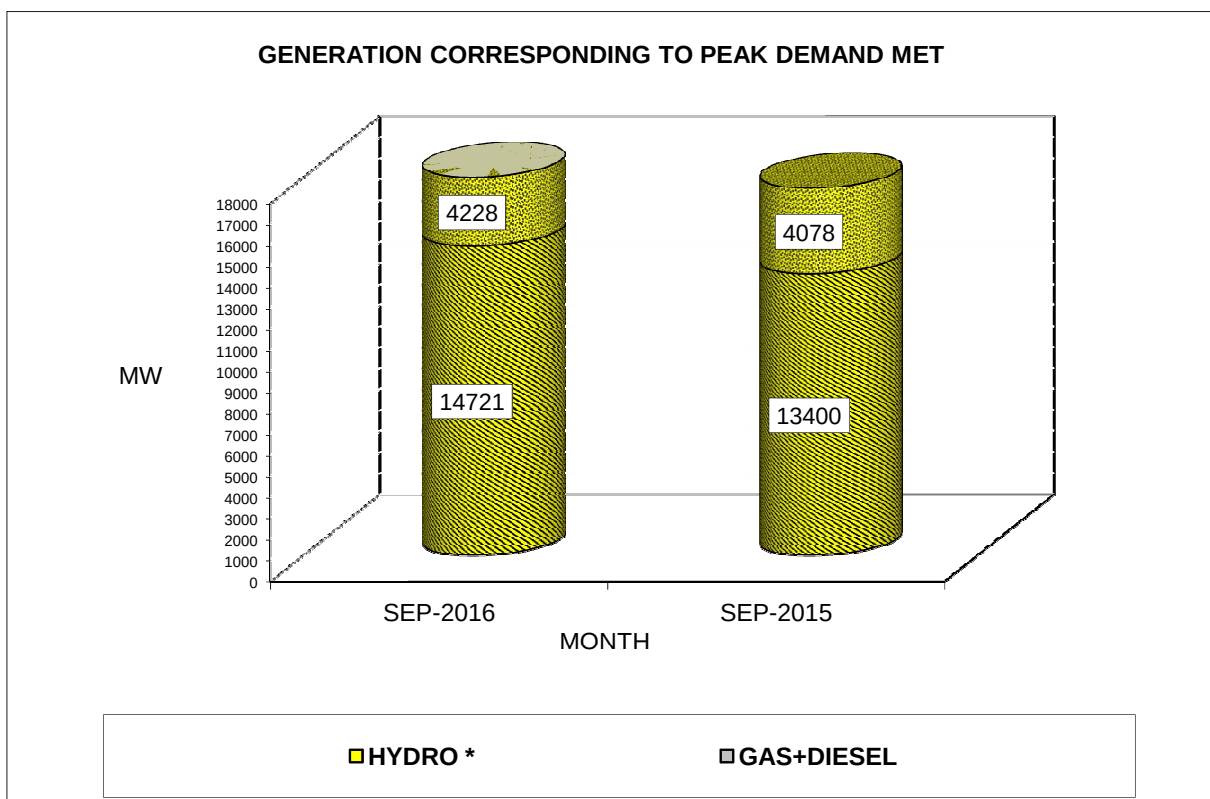
(As on 30.09.16)

Sl. No .	AGENCY	NAME OF POWER STATION	STATE	TYPE	UNIT NO.	CAPACITY (MW)	LATEST COMMISSIONING SCHEDULE
1	DVC	BTPS 'A'	Jharkand	THERMAL	1	500	Status awated
2	Corporate Power Ltd.	Matashri Usha TPP-ph-1	Jharkand	THERMAL	1	257	Status awated
3	WBPDC	Sagardighi	West Bengal	THERMAL	3	500	Status awated
4	WBPDC	Sagardighi	West Bengal	THERMAL	4	500	Status awated
5	KBUNL	Muzaffarpur (MTPS)	Bihar	THERMAL	1	195	Expected COD on Mar, 2017
6	KBUNL	Muzaffarpur (MTPS)	Bihar	THERMAL	2	195	Expected COD on Mar, 2017
7	BRBCL	Nabinagar TPP	Bihar	THERMAL	12,3,4	4x250	Expected COD from Mar, 2017

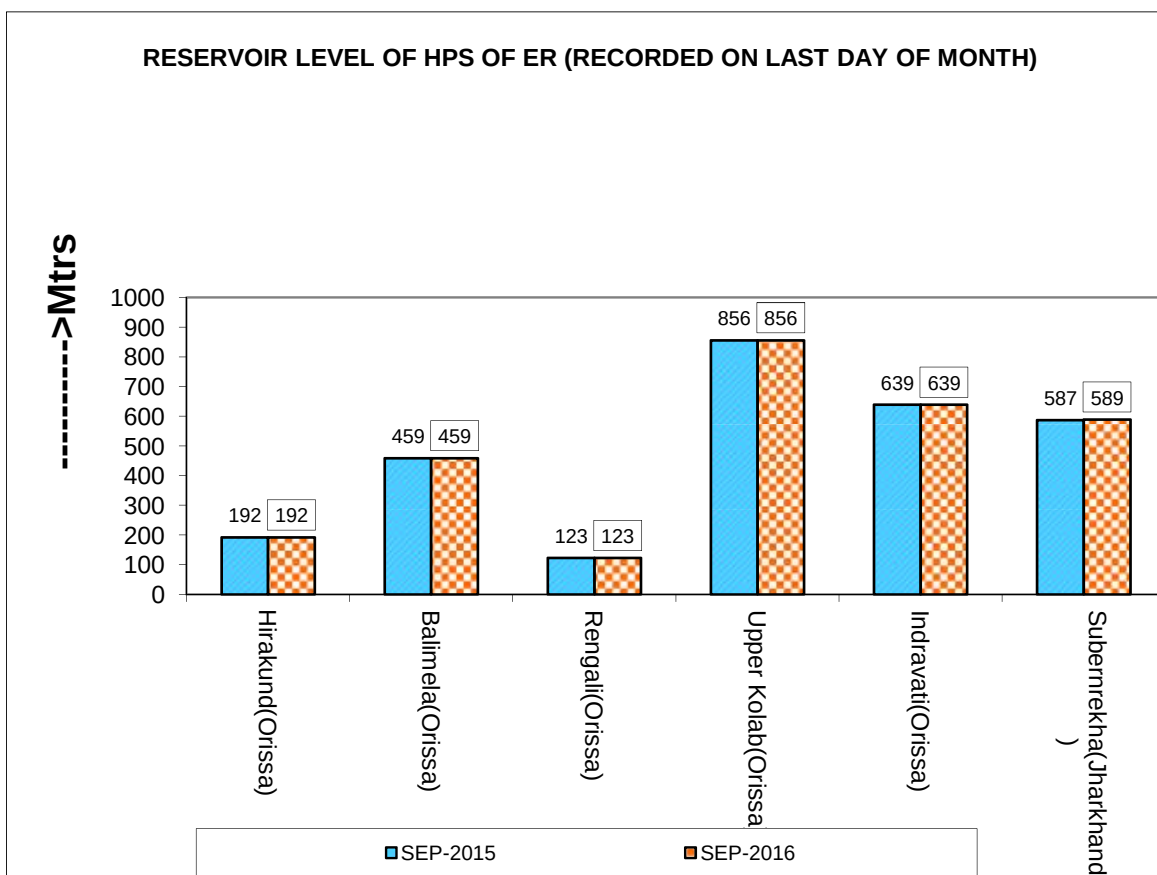
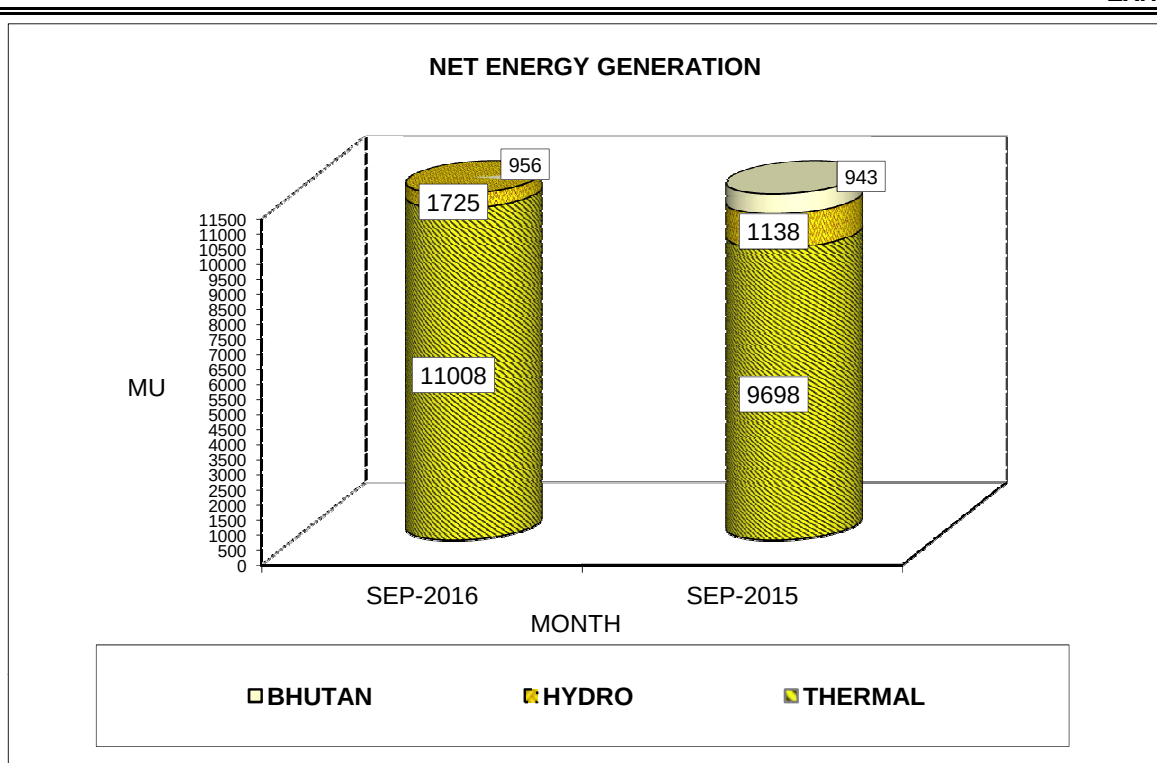
8	BRBCL & NTPC	New Nabinagar STPP	Bihar	THERMAL	1,2,3	3x600	Expected Dec, 2017
9	DVC	Maithon Left Bank	West Bengal	THERMAL	2	525	Status awated from DVC
10	NTPC	Barh Stage- I	Bihar	THERMAL	3	660	Status awated from NTPC
11	Lanco Babandh Power Ltd	Lanco Babandh TPP	ODISHA	THERMAL	1	660	
IPP							
12	Corporat e Power Ltd	Mata shri Usha TPP-Ph-I	Jharkand	THERMAL	2	270	
13	IPP	Ind Bharat TPP	Odisha	THERMAL	1	350	COD on Jul' 2016
14	IPP	Ind Bharat TPP	Odisha	THERMAL	1	350	COD on Jul' 2016
15	IPP	Teesta Urja	West Bengal	Hydro	1,2,3	200x3	Expected Nov, 2016
16	IPP	Teesta Urja	West Bengal	Hydro	4,5,6	200x3	Expected Jan, 2017
17	IPP	Shiga Energy Pvt. Ltd.			1,2	2x48	Expected Jan, 2017
18	IPP	Sneha Kinetic Power Projects Ltd. (Dikchu)				2x48	Expected Nov, 2016



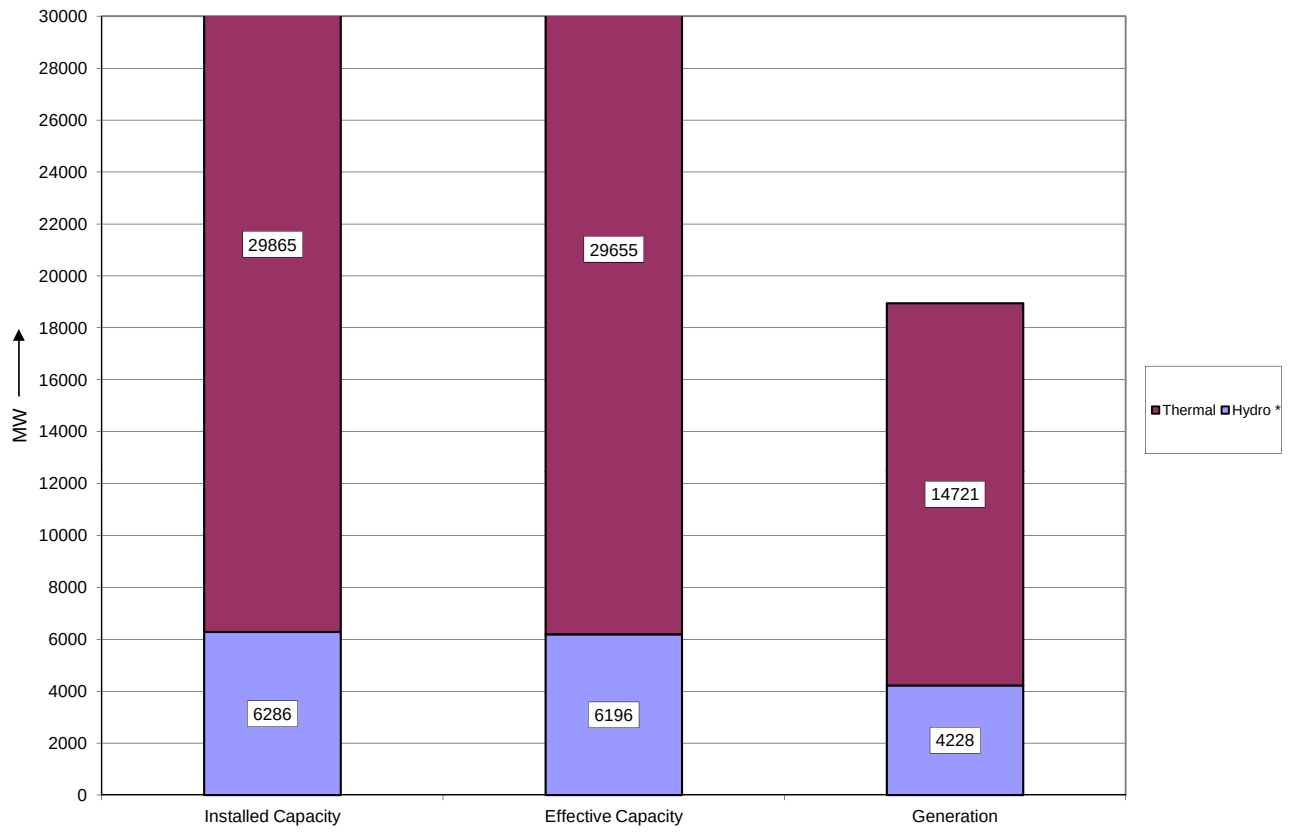
*Excludes 1350 MW contribution from HEPs of Bhutan



*Includes contribution from HEP of Bhutan

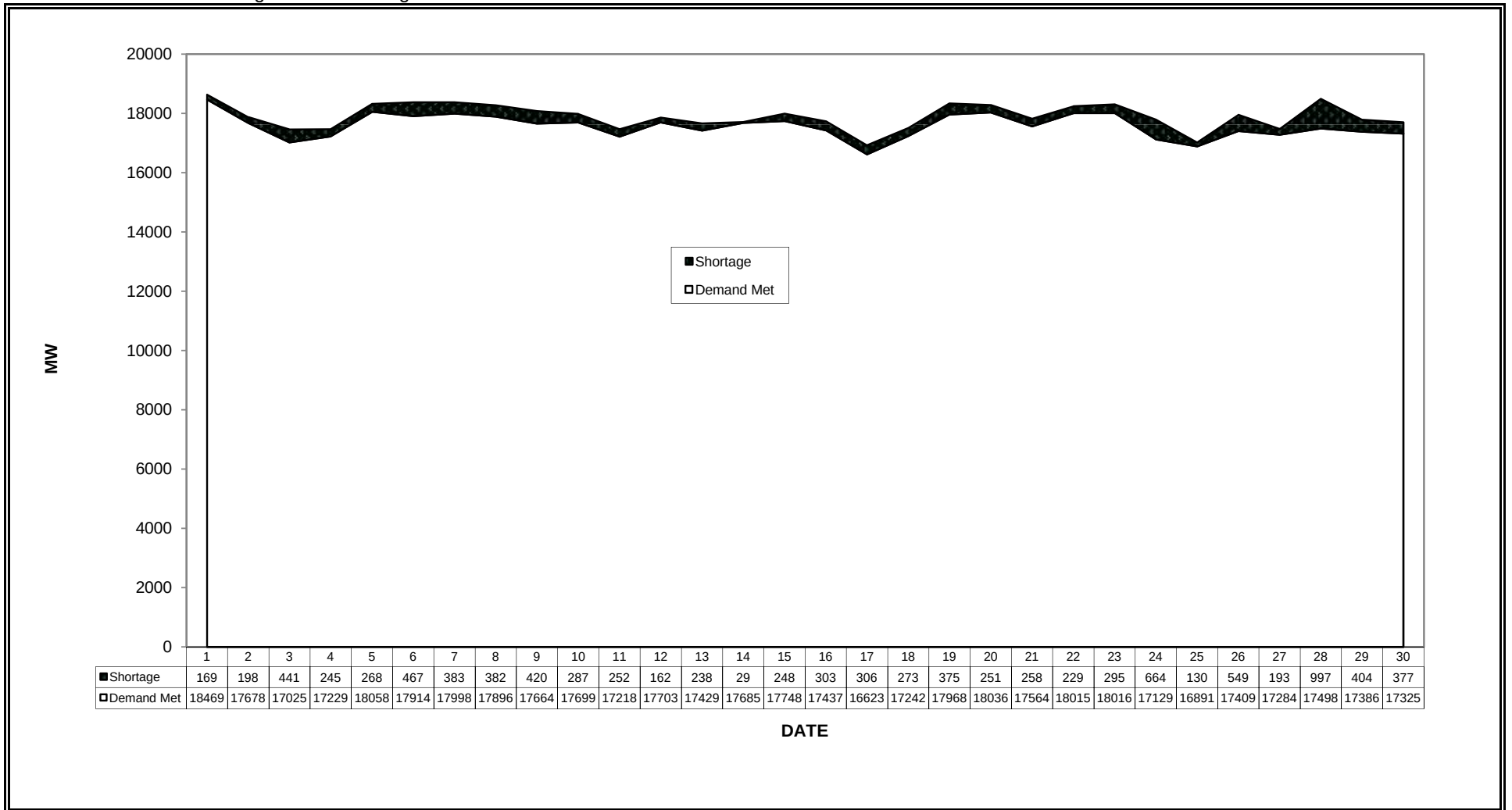


Capacity / Actual Generation Pattern of ER on Peak Day (1-9-2016) at 22.00 hrs.

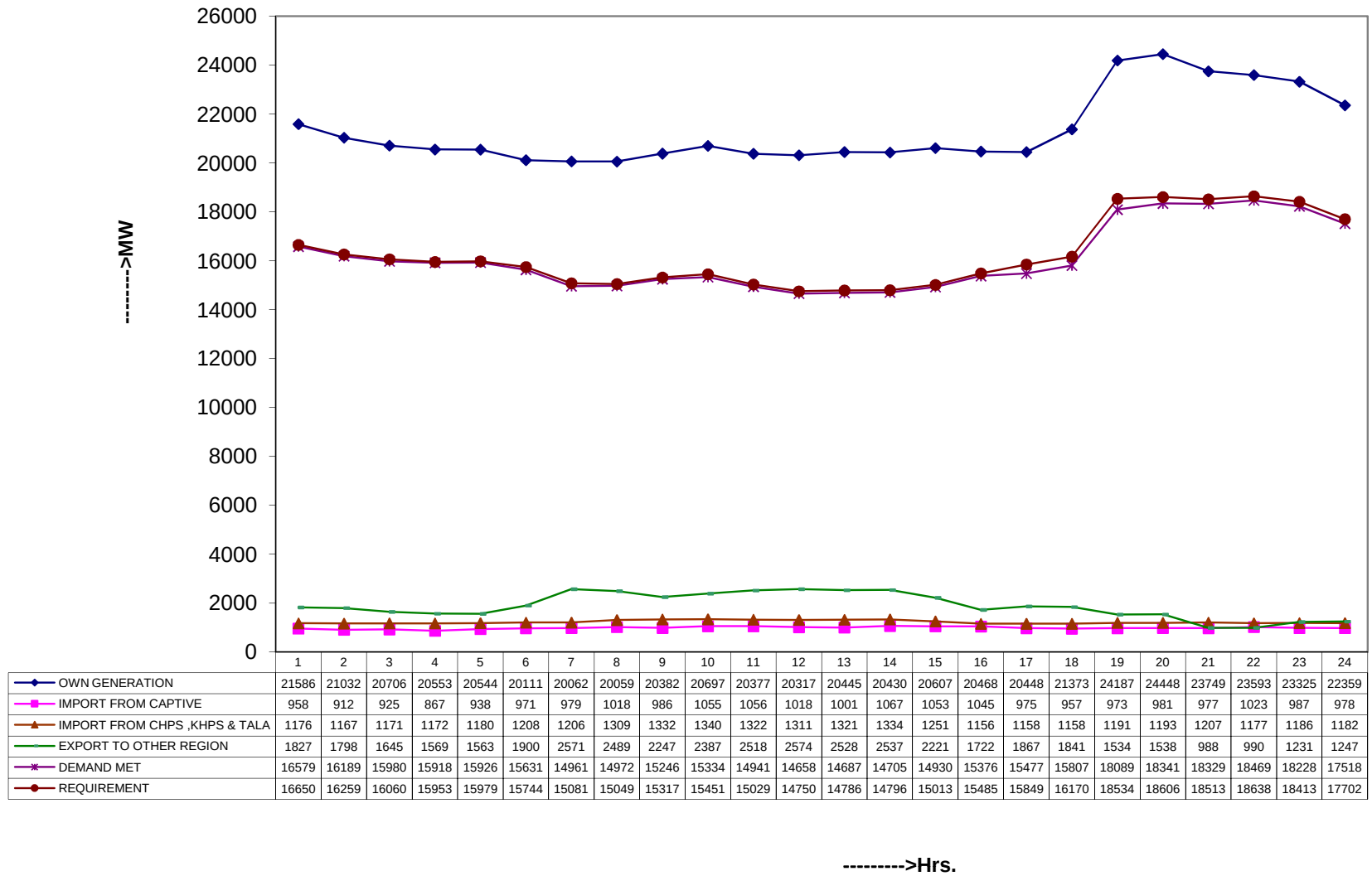


(*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

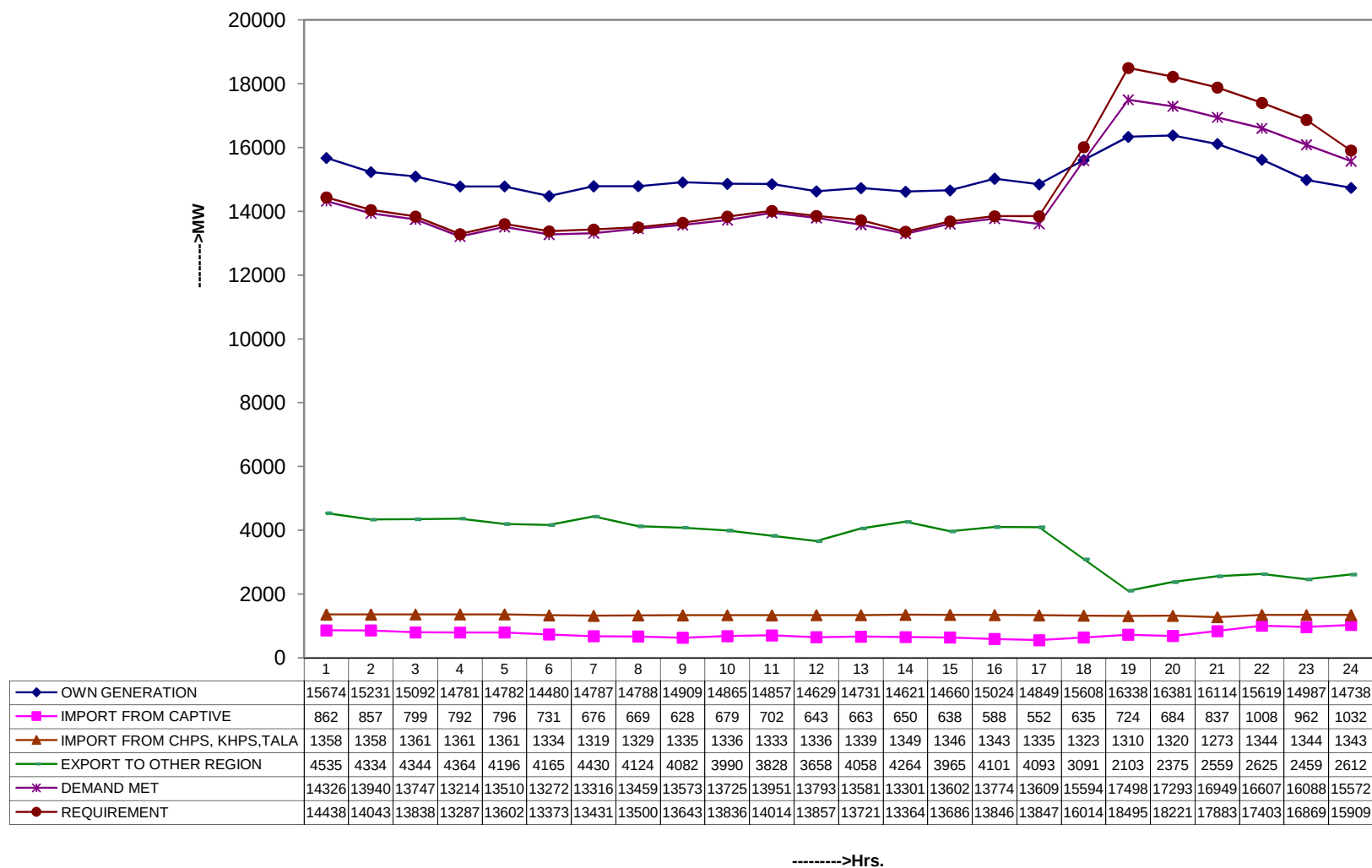
Peak Demand Met / Shortage of Eastern Region For The Month Of SEP-2016



Hourly Load Generation Data OF ER On Regional Peak Day During The Month of SEP-2016 (1-9-2016)

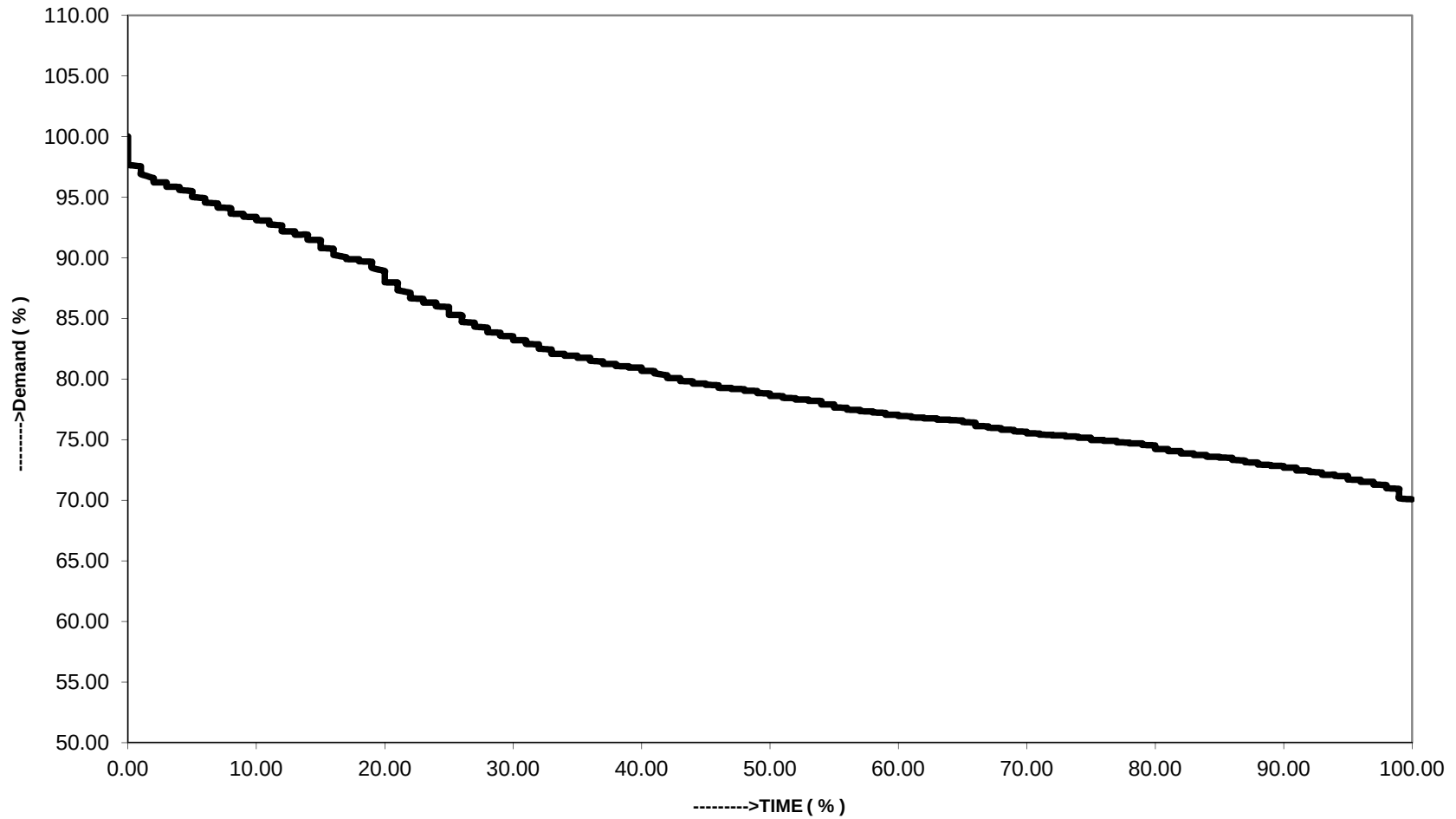


Hourly Load Generation Data of ER On Regional Lean Day During The Month of SEP-2016 (25-9-2016)



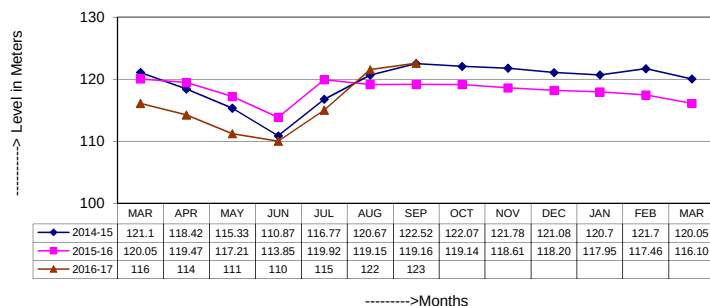
Monthly Load Duration Curve of Eastern Region for SEP-2016

Maximum Demand met : 18469 MW
Minimum Demand met: 12067 MW

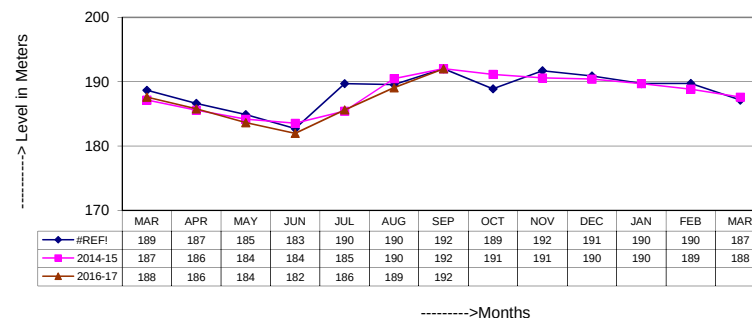


WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH

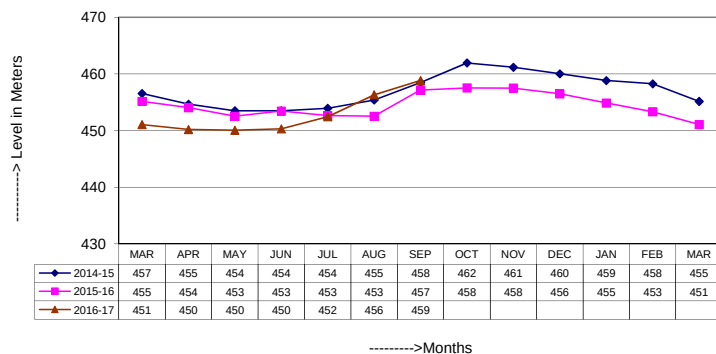
RENGALI RESERVOIR LEVEL



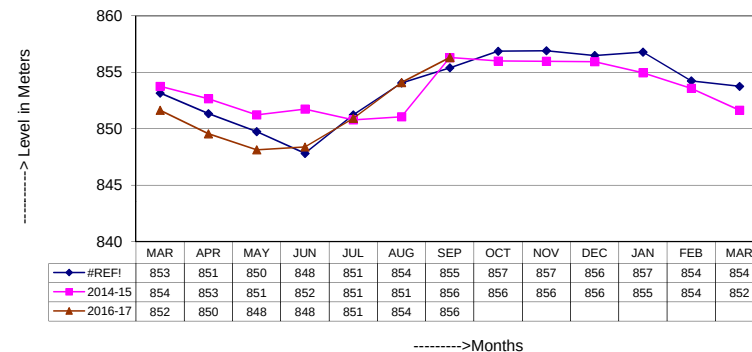
HIRAKUD RESERVOIR LEVEL



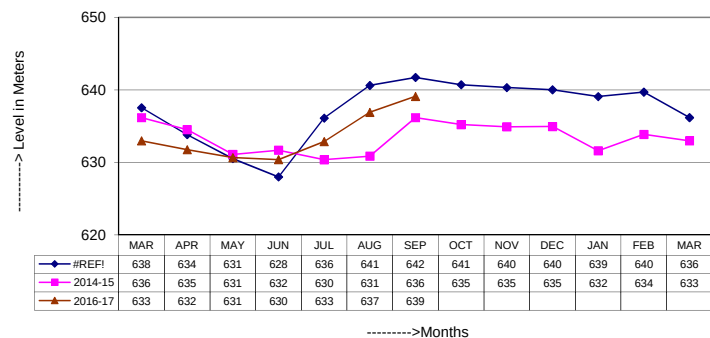
BALIMELA RESERVOIR LEVEL



UPPER KOLAB RESERVOIR LEVEL



INDRAVATI RESERVOIR LEVEL



SUBERNREKHA RESERVOIR LEVEL

