



सत्यमेव जयते

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

जुलाई- 2019

July-2019



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Highlights of Eastern Regional Power System for July-2019

- The **Maximum Net Demand** met of **Eastern Region (ER)** during the month of **July, 2019** was **23154 MW** which is 6.26% more than the **July, 2019** (21790 MW). Individual **Peak Demand (MW)** of most of constituents **increased** compared to the corresponding period of last year.
- The **Average Net Energy Consumption** per day in ER for the month of **July, 2019** was **450.73 MU** excluding export, which is 5.86% more than the corresponding period of last year (425.78 MU).
- **The Average regional PLF of thermal units during the month is 62.10%**, which is marginally less than the corresponding period of the last year (**62.85%**).

CESC (Budge-Budge) registered the highest **PLF** of 97.19%, followed by Haldia 95.84% WBPDCCL Santaldih (TPS) 93.98% and DVC(Chandrapura U7#8) 91.03% during the month of **July, 2019**.

- **Maximum Net generation** was **23330 MW** against total **Effective Capacity of 37573.30 MW** (including import from Bhutan). At the time of Regional peak (23154 MW on 18.07.2019 at 21.00 hrs.) the generation was 23886 MW and import from CPP was 1085 MW, Net export was 1164 MW.
- The system frequency in the IEGC recommended band (49.9 Hz to 50.05 Hz) remained for 68.59% of time during the month. **Average frequency** for the month was **50 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 **50.24 Hz** and **49.72 Hz** respectively (**refer Annexure-I**).
- The **Maximum Voltage** recorded **424 KV** at Muzaffarpur 400 KV S/s whereas the minimum voltage recorded 376 KV at Jeerat 400 KV S/s of Power grid.
- **The Maximum Export from ER to outside region was 8780 MW (including Nepal and Bangladesh) on 8th July, 2019 at 17:00 hrs.** Total net energy export during the month was 2514.53 MU (Inc.Transmission loss) MU which is corresponds to 16.09 % of ex-bus total generation 15632.51 MU of Eastern Region.
- **The import from CPPs was 854.69 MU during the month.**
- **Export(+)/Import(-) during the month:**

Region/Country	Max. Export of Power from ER (MW)	Max. Import of Power by ER (MW)	Net Export of Energy inc.Transmission loss(MU)
NR	5202	0	2581.80
WR	0	4655	-2177.62
SR	3277	724	1035.66
NER	926	369	250.32
BANGLADESH	950		681.37
NEPAL (via-CTU)	250		143.02
Total(Net)	8780	4655	2514.53
NEPAL by Bihar(NBPDCL)			1.65

SALIENT FEATURES

(YEAR TO YEAR COMPARISON)

		Jul-19	JULY-2018	CHANGE	% CHANGE
1) Effective Capacity (end of the Month)					
THERMAL	(MW)	28000	27205	795	2.92
HYDRO	(MW)	5876	\$ 5876	0	0
DIESEL	(MW)	0	0	0	0
RES	(MW)	1336	886	0	0
TOTAL	(MW)	35212	33967	1245	3.67
2) Peak Demand (MW)		23246	21849	1397	6.40
3) Peak Demand Met (MW)		23154	21790	1364	6.26
4) Shortage (MW)		92	59	33	55.77
5) % Shortage		0.40	0.27	0.13	46.43
6) Average Energy Requirement Per Day (MU)		451.52	427.41	24.11	5.64
7) Average Energy Availability Per Day (MU)		450.73	425.78	24.95	5.86
8) Average Shortage Per Day (MU)		0.79	1.63	-0.84	-51.57
9) % Shortage		0.17	0.38	-0.21	-53.99
10) Net Generation for the Month					
Thermal (MU)		12058.28	11724.52	333.76	2.85
Hydro (MU)		3524.12	* 3100.09	424.03	13.68
RES (MU)		50.11	0.00	0.00	-
Total (MU)		15632.51	14880.58	751.93	5.05
11) Generation at the Time of Max. Regional Demand Met (18-07-19 at 21.00 Hrs.)					
Thermal (MW)		17789	16571	1218	7.35
Hydro (MW)		6045	* 5432	613	11.29
RES(MW)		52	0	52	-
Total (MW)		23886	22003	1883	8.56
12) Inter-Regional Energy Transfer					
Export (MU)		4692.15	3946.94	745.21	18.88
Import (MU)		2177.62	1630.22	547.40	33.58
Net Exp.(+)/Net Imp.(-) (MU)		2514.53	2316.72	197.81	8.54
13) Import From Captive(MU)		854.69	640.46	214.23	33.45
14) Peak Inter Regional Power Transfer					
Max Export (MW) on 08-07-19 at 17.00Hrs		8780	7039	1741	24.73
Max Import (MW) on 31-07-19 at 03.00Hrs		4655	3875	780	20.13
Max Net Export(+)/Import (-) (MW)		7211	6202	1009	16.27
15) Maximum voltage recorded		424	MUZAFFARPUF 400 kv	s/s	
16) Minimum voltage recorded		376	JEERAT	400 kv	s/s

\$ Excludes 1566 MW contribution from HEPs of Bhutan

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

POWER SUPPLY POSITION FOR THE MONTH OF JULY'2019

A) Net Average Energy Per Day

System	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSPHCL	94.12	94.53	0.41	0.44
JUVNL	24.20	24.38	0.19	0.77
DVC	63.04	63.05	0.01	0.01
ODISHA	91.99	92.00	0.01	0.01
WBSIEDCL	138.41	138.81	0.40	0.29
CESC	37.42	37.42	0.00	0.01
SIKKIM	1.32	1.32	0.00	0.01
REGION	450.73	451.52	0.79	0.17

B) Peak Demand in MW:

System	Demand Met (MW)	Requirement (MW)	Shortage (MW)	% Shortage
BSPHCL	5433	5435	2	0.03
JUVNL	1323	1323	0	0.00
DVC	2871	2874	3	0.11
ODISHA	4861	4861	0	0.00
WBSIEDCL	7269	7292	23	0.32
CESC	2131	2134	3	0.1
SIKKIM	85	85	0	0.00
REGION	23154	23246	92	0.40

➤ **DIVERSITY FACTOR** **1.04**

➤ **Regional Peak Demand Met on 18-7-2019 at 21.00 hrs. at 49.91 Hz.**

CONSTITUENT-WISE PERFORMANCE DATA JULY-19

SYSTEM	Gross Generation(MU)				Auxiliary power Consumption(MU)				Net Generation (MU)				Import from Captive (MU)	Exchange Net Import(+) Net Export(-)	Energy Consumption(MU)	Per Day Cons.(MU)	Net Peak Demand Met (MW)	Gross Peak Demand Met (MW)
	HYDRO	Thermal	RES (Hy+Solar)	Total	HYDRO	Thermal	Solar	Total	HYDRO	Thermal	Solar	Total						
BSPHCL	0.00	105.17	19.34	124.51	0.00	13.55	0.00	13.55	0.00	91.62	19.34	110.96	0.00	2806.68	2917.64	94.1	5433	5458
JUVNL	0.00	215.42	0.00	215.42	0.00	26.12	0.00	26.12	0.00	189.30	0.00	189.30	46.57	514.26	750.14	24.2	1323	1362
DVC	6.46	3415.44	0.00	3421.90	0.11	250.23	0.00	250.34	6.35	3165.21	0.00	3171.56	7.06	-1224.33	1954.29	63.0	2871	3255
ODISHA(OPGC+OHPC+TTPS)	426.46	608.93	26.83	1062.21	4.77	64.94	0.00	69.72	421.69	543.98	26.83	992.50	669.18	1190.15	2851.82	92.0	4861	4963
WBPDC+WBSEDCL+DPL	176.21	1926.03	0.00	2102.24	0.00	192.27	0.00	192.27	176.21	1733.76	0.00	1909.97	131.89	2248.99	4290.84	138.4	7269	7557
CESC	0.00	584.10	0.00	584.10	0.00	45.77	0.00	45.77	0.00	538.33	0.00	538.33	0.00	621.68	1160.01	37.4	2131	2203
HEL	0.00	427.82	0.00	427.82	0.00	32.79	0.00	32.79	0.00	395.03	0.00	395.03	0.00	-395.03				
SIKKIM	0.00	0.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	0.00	37.99	40.99	1.3		
OPGC U#4(660 MW)	0.00	66.50	0.00	66.50	0.00	4.16	0.00	4.16	0.00	62.34	0.00	62.34	0.00	-62.34				
NTPC	0.00	4332.30	0.00	4332.30	0.00	321.36	0.00	321.36	0.00	4010.94	0.00	4010.94	0.00	-4010.94				
MPL	0.00	308.97	0.00	308.97	0.00	21.06	0.00	21.06	0.00	287.91	0.00	287.91	0.00	-287.91				
APNRL	0.00	251.00	0.00	251.00	0.00	22.53	0.00	22.53	0.00	228.47	0.00	228.47	0.00	-228.47				
GMR	0.00	393.37	0.00	393.37	0.00	27.82	0.00	27.82	0.00	365.55	0.00	365.55	0.00	-365.55				
JITPL	0.00	476.08	0.00	476.08	0.00	30.25	0.00	30.25	0.00	445.83	0.00	445.83	0.00	-445.83				
NHPC (Inc TLDP= 178.92MU)	574.75	0.00	0.00	574.75	0.00	0.00	0.00	0.00	574.75	0.00	0.00	574.75	0.00	-574.75	0.00			
CHPC(Birpara Receipt)	261.71	0.00	0.00	261.71	0.00	0.00	0.00	0.00	261.71	0.00	0.00	261.71	0.00	-261.71	0.00			
KHPS	68.70	0.00	0.00	68.70	0.00	0.00	0.00	0.00	68.70	0.00	0.00	68.70	0.00	-68.70	0.00			
THPS	545.60	0.00	0.00	545.60	0.00	0.00	0.00	0.00	545.60	0.00	0.00	545.60	0.00	-545.60	0.00			
DAGACHU HPS	65.49	0.00	0.00	65.49	0.00	0.00	0.00	0.00	65.49	0.00	0.00	65.49	0.00	-65.49	0.00			
Mangdechhu HEP	188.15	0.00	0.00	188.15	0.00	0.00	0.00	0.00	188.15	0.00	0.00	188.15	0.00	-188.15	0.00			
CHUZACHEN HPS	77.80	0.00	0.00	77.80	0.00	0.00	0.00	0.00	77.80	0.00	0.00	77.80	0.00	-77.80	0.00			
JORHANG HPS	66.73	0.00	0.00	66.73	0.00	0.00	0.00	0.00	66.73	0.00	0.00	66.73	0.00	-66.73	0.00			
TEESTA-III HPS	918.52	0.00	0.00	918.52	0.00	0.00	0.00	0.00	918.52	0.00	0.00	918.52	0.00	-918.52	0.00			
DIKCHU HPS	77.84	0.00	0.00	77.84	0.00	0.00	0.00	0.00	77.84	0.00	0.00	77.84	0.00	-77.84	0.00			
TASHIDING HPS	74.60	0.00	0.00	74.60	0.00	0.00	0.00	0.00	74.60	0.00	0.00	74.60	0.00	-74.60	0.00			
TALCHER SOLAR	0.00	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.00	-0.94				
Total Drawal by HVDC Sahsaram,Alipurduar														6.89	6.89			
Total	3529.01	13111.12	50.11	16690.24	4.89	1052.84	0.00	1057.73	3524.12	12058.28	50.11	15632.51	854.69	-2514.58	13972.62	450.7	23154.34	24240.11

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

A) Net Average Energy

Month	2018-19					2019-20				
	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	393.59	396.98	3.39	0.85	49.96	428.71	429.56	0.85	0.20	50.00
MAY	420.52	425.36	4.84	1.14	49.94	451.15	452.79	1.64	0.36	49.99
JUNE	437.39	441.13	3.74	0.85	49.97	461.72	462.87	1.15	0.25	49.99
JULY	425.68	427.31	1.63	0.38	49.97	450.73	451.52	0.79	0.17	50.00
AUGUST	446.36	449.17	2.81	0.63	49.97	-	-	-	-	-
SEPTEMBER	440.53	448.47	7.94	1.77	49.96	-	-	-	-	-
OCTOBER	419.33	423.20	3.87	0.91	49.96	-	-	-	-	-
NOVEMBER	368.99	371.76	2.77	0.75	49.97	-	-	-	-	-
DECEMBER	340.51	342.17	1.66	0.49	49.96	-	-	-	-	-
JANUARY	355.14	357.42	2.29	0.64	49.98	-	-	-	-	-
FEBRUARY	356.66	357.25	0.59	0.17	49.99	-	-	-	-	-
MARCH	384.42	385.48	1.06	0.27	49.99	-	-	-	-	-

B) Peak in MW:

Month	2018-19					2019-20				
	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.
	(MW)	(MW)	(MW)	(%)	(HZ)	(MW)	(MW)	(MW)	(%)	(HZ)
APRIL	21058	21128	70	0.33	49.96	22378	22415	37	0.17	50.00
MAY	21902	22012	111	0.50	49.94	22781	22830	49	0.22	49.99
JUNE	22080	22964	884	3.85	49.97	22808	22867	59	0.26	49.99
JULY	21790	21849	59	0.27	49.97	23154	23246	92	0.40	50.00
AUGUST	22580	22794	215	0.94	49.97	-	-	-	-	-
SEPTEMBER	22286	22815	529	2.32	49.96	-	-	-	-	-
OCTOBER	22733	23093	360	1.56	49.96	-	-	-	-	-
NOVEMBER	20322	20512	190	0.93	49.97	-	-	-	-	-
DECEMBER	18023	18049	25	0.14	49.96	-	-	-	-	-
JANUARY	18702	18783	81	0.43	49.98	-	-	-	-	-
FEBRUARY	18921	18923	2	0.01	49.99	-	-	-	-	-
MARCH	21221	21416	195	0.91	49.99	-	-	-	-	-

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

All figures are in MU

	FROM	Cumulative from 01-Apr-19 to 30/Jun/19				During June-19						
		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	
BSPHCL	FARAKKA STPS I	926.67	688.18				288.73	215.56				
	FARAKKA STPS III	175.32	130.66				16.53	14.76				
	KAHALGAON STPS I	654.55	570.80				217.35	193.74				
	KAHALGAON STPS II	117.88	120.54				44.80	45.37				
	TALCHER STPS I	694.57	674.52				220.34	210.88				
	MTPS-II	571.64	472.61				183.05	157.71				
	BRBCL	115.67	121.21				40.59	45.54				
	Rly BRBCL	111.10	93.38				36.74	31.68				
	BARH STPS II	2347.33	2238.41				737.72	719.38				
	RANGIT HEP	31.12	31.12				13.37	13.37				
	CHUKHA HEP	42.18	78.02				19.62	36.92				
	KIRUCHHU HEP	0.00	0.00				0.00	0.00				
	TALA HPS	126.28	100.70				61.46	50.62				
	TEESTA HEP	191.40	191.40				71.13	71.13				
	TOTAL	6105.71	5511.54	2697.62	8375.06	8368.71	1951.43	1806.66	991.61	2957.26	2964.44	
	JUVNL	FARAKKA STPS I	253.06	193.77				78.849	58.942			
FARAKKA STPS III		112.05	102.02				10.566	9.317				
KAHALGAON STPS I		50.06	48.41				16.619	15.216				
KAHALGAON STPS II		29.56	40.61				11.232	14.458				
TALCHER STPS I		129.14	121.47				40.975	37.103				
MTPS-II		26.18	30.46				8.382	9.469				
BARH STPS II		185.29	150.78				59.671	47.606				
RANGIT HEP		11.85	11.85				5.094	5.094				
CHUKHA HEP		15.29	28.28				7.113	13.383				
KIRUCHHU HEP		0.00	0.00				0.000	0.000				
TALA HPS		56.75	45.25				27.623	22.751				
TEESTA HEP		111.09	111.09				41.284	41.284				
TOTAL		980.33	884.00	584.63	1611.17	1618.26	307.41	274.62	137.30	559.37	562.85	
DVC		FARAKKA STPS I	0.00	0.00				0.00	0.00			
		FARAKKA STPS III	0.00	0.00				0.00	0.00			
		KAHALGAON STPS I	0.00	0.00				0.00	0.00			
	KAHALGAON STPS II	1.07	0.00				0.00	0.00				
	TALCHER STPS I	8.65	3.02				1.07	0.97				
	MTPS-II	68.80	17.35				6.35	5.77				
	BRBCL	64.94	781.21				55.32	49.16				
	RANGIT HEP	11.94	8.89				3.82	3.82				
	CHUKHA HEP	12.95	27.31				6.87	12.92				
	KIRUCHHU HEP	19.05	10.47				5.05	6.00				
	TALA HPS	42.99	21.88				13.35	11.00				
	TEESTA HEP	169.62	77.78				28.91	28.91				
	TOTAL	279.26	947.91	-4307.56	-4157.09	-1370.96	120.74	118.54	-1260.32	-1314.20	-1294.44	
	GRIDCO	FARAKKA STPS I	413.53	317.77				130.43	132.81			
		FARAKKA STPS III	113.38	109.15				10.69	9.78			
		KAHALGAON STPS I	246.68	259.86				81.91	81.17			
KAHALGAON STPS II		62.04	127.71				23.58	41.31				
TALCHER STPS (Stg-I)		544.68	539.48				172.79	168.87				
TALCHER STPS (Stg-II)		0.00	0.00				0.00	0.00				
MTPS-II		65.02	2.16				20.82	0.75				
BARH STPS II		0.00	0.00				0.00	0.00				
RANGIT HEP		0.00	0.00				0.00	0.00				
CHUKHA HEP		21.62	40.00				10.06	18.93				
KIRUCHHU HEP		0.00	0.00				0.00	0.00				
TALA HPS		21.48	16.78				10.24	8.44				
TEESTA HEP		185.37	185.37				68.88	68.88				
TOTAL		1673.79	1598.28	1044.65	2890.41	3012.29	529.40	530.95	306.66	1006.03	1051.23	
WBSIEDCL		FARAKKA STPS I	969.49	874.95				302.07	289.33			
		FARAKKA STPS III	254.92	217.54				24.04	21.90			
	KAHALGAON STPS I	109.29	107.85				36.29	38.52				
	KAHALGAON STPS II	21.76	30.62				8.27	16.75				
	TALCHER STPS I	170.58	161.64				54.11	52.50				
	MTPS-II	73.46	63.97				23.52	25.81				
	RANGIT HEP	25.20	25.20				10.83	10.83				
	CHUKHA HEP	46.03	83.87				21.09	39.69				
	KIRUCHHU HEP	10.89	10.47				5.05	6.00				
	TALA HPS	193.28	151.04				92.20	75.93				
	TEESTA HEP	215.89	215.89				80.23	80.23				
	TOTAL	2090.78	1943.05	2790.71	4982.46	5015.82	657.70	657.49	811.39	1692.51	1735.99	
	SIKKIM	FARAKKA STPS I	48.11	29.99				14.99	9.37			
		FARAKKA STPS III	0.00	0.00				0.00	0.00			
		KAHALGAON STPS I	24.24	17.77				8.05	5.73			
		KAHALGAON STPS II	7.81	6.49				2.97	2.50			
TALCHER STPS I		40.42	36.90				12.82	12.33				
MTPS-II		4.22	3.82				1.35	1.19				
BARH STPS II		34.49	23.90				11.11	8.13				
RANGIT HEP		11.85	11.85				5.09	5.09				
CHUKHA HEP		3.21	5.85				1.47	2.77				
KIRUCHHU HEP		0.00	0.00				0.00	0.00				
TEESTA HEP		118.75	118.75				44.13	44.13				
TOTAL		293.09	255.31	-25.36	124.12	120.20	101.98	91.25	-34.40	37.25	39.35	
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	-628.02	-560.72				-238.66	-204.95			
		TALCHER STPS I	0.00	0.00				0.00	0.00			
	BARH STPS II	0.00	0.00				0.00	0.00				
	BRBCL	-374.47	-284.92				-122.72	-86.98				
	TOTAL	-1002.49	-845.64	1222.47	642.44	1584.93	-361.38	-291.93	11.71	497.00	1876.40	
	SR	FARAKKA STPS I	-60.25	-63.29				-18.77	-18.79			
		FARAKKA STPS III	-4.85	-5.06				-0.46	-0.33			
		KAHALGAON STPS I	-21.61	-23.94				-7.18	-7.34			
		KAHALGAON STPS II	-18.06	-20.47				-6.86	-6.15			
		TALCHER STPS STG-I	-26.32	-9.87				-8.35	8.15			
		MTPS-II	-2.13	-3.77				-0.68	-0.80			
		BARH STPS II	-17.66	-17.30				-5.69	-5.51			
		TOTAL	-150.89	-143.70	-1973.99	-3302.69	-4166.39	-47.99	-30.78	-358.64	-249.81	-957.11
		NR	FARAKKA STPS I	-168.23	-136.59				-52.41	-52.23		
KAHALGAON STPS I			-390.16	-302.26				-129.55	-112.92			
KAHALGAON STPS II			-1327.76	-1068.38				-504.59	-438.84			
TALCHER STPS I			0.00	0.00				0.00	0.00			
BRBCL			-367.90	-270.20				-143.80	-105.23			
TALA HPS			-75.80	-59.23				-36.16	-29.78			
TOTAL			-2329.84	-1836.67	-2985.71	-4473.42	-5610.90	-866.51	-738.99	-1442.91	-2006.05	-1992.83
WR+SR+NR (GRAND TOTAL)			-3483.23	-2826.02	-3737.23	-7133.67	-8192.37	-1275.88	-1061.70	-1789.84	-1758.86	-1073.54
NER	FARAKKA STPS I		-97.71	-77.71				-30.44	-26.93			
	FARAKKA STPS III		-0.61	-0.73				-0.06	-0.06			
	KAHALGAON STPS I		-46.20	-41.80				-15.34	-14.95			
	KAHALGAON STPS II		-122.75	-100.04				-46.65	-43.66			
	TALCHER STPS I		-49.68	-48.00				-15.76	-15.65			
TOTAL	-316.95		-268.28	123.11	213.94	139.41	-108.24	-101.25	80.49	-1.28	-328.44	

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF JULY'2019

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 (2019-20) in MU	Cummulative Net Energy Generation upto Current Month (2019-20) in MU	
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	0.00	0.00	8.57	7.37	
		Muzaffarpur Stg-I	220.00	220.00	105.17	91.62	401.88	352.54	
		Thermal Total	440.00	430.00	105.17	91.62	410.45	359.91	
	RES		327.90	327.90	19.34	19.34	103.42	103.42	
		Total BIHAR	767.90	757.90	124.51	110.96	513.87	463.34	
JHARKHAND									
TVNL	Thermal	TVNL	420.00	420.00	215.42	189.30	807.26	704.82	
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.00	0.00	0.67	0.67	
		RES	39.00	39.00	0.00	0.00	0.00	0.00	
			Total	169.00	169.00	0.00	0.00	0.67	0.67
DVC	Thermal	Bokaro-B(3)	210.00	210.00	0.00	-0.34	61.23	52.01	
		Chandrapura (3)	140.00	130.00	0.00	0.00	0.00	0.00	
		Chandrapura(U7 # 8)	500.00	500.00	338.63	306.08	1343.29	1216.63	
		Durgapur(4)	210.00	210.00	53.09	45.26	108.66	89.72	
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	727.46	651.66	2830.14	2538.82	
		Mezia(U # 7,8)	1000.00	1000.00	313.32	294.49	1996.67	1886.93	
		Bokaro-A(1)	500.00	500.00	311.85	295.33	1118.45	1055.39	
		Durgapur STPS (U#1,2)	1000.00	1000.00	589.36	554.78	2392.58	2259.15	
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	505.08	474.77	1810.74	1699.32	
	Koderma STPS (U#1,2)	1000.00	1000.00	576.65	543.18	2448.55	2312.56		
			Total Thermal	7100.00	7090.00	3415.44	3165.21	14110.30	13110.53
	Hydro	Maithon (U#1,2,3)	63.20	63.20	1.47	1.43	3.36	3.23	
		Panchet (U#1,2)	80.00	80.00	4.99	4.92	11.75	11.53	
		Tilaya (U#1,2)	4.00	4.00	0.00	0.0	0.00	0.0	
Hydro Total		147.20	147.20	6.46	6.35	15.11	14.73		
		Total DVC	7247.20	7237.20	3421.90	3171.56	14125.41	13125.26	
WEST BENGAL									
WBPDCCL	Thermal	Bandel TPS	380.00	335.00	97.71	86.03	451.28	400.35	
		Santalidih TPS(U#5&6)	500.00	500.00	349.61	321.62	1381.12	1271.99	
		Kolaghat TPS	1260.00	1260.00	360.47	319.05	1594.25	1419.29	
		Bakreswar TPP	1050.00	1050.00	461.29	415.81	2466.65	2243.52	
		Sagardighi TPP	1600.00	1600.00	471.37	426.62	2393.51	2174.58	
		DPPS (110+300+250 *)	660.00	660.00	185.59	164.63	959.29	857.37	
		Thermal Total	5450.00	5405.00	1926.03	1733.76	9246.11	8367.09	
WBSIEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	20.08	20.08	80.73	80.73	
		Ramam (4x12.73)	51.00	51.00	35.24	35.24	76.17	76.17	
		Teesta C.F. (3x3x7.3)	67.30	67.30	7.03	7.03	7.03	7.03	
		Purulia PSS (4x225)	900.00	900.00	113.86	113.86	383.15	383.15	
		Total Hydro	1053.30	1053.30	176.21	176.21	547.08	547.08	
		RES	407.15	407.15	0.00	0.00	0.48	0.48	

➤ Chandrapura #1 is retired on 17.01.17

➤ Patratu # 1,2,3,5,8 are retired on 21.12.16

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF JULY'2019

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	(2019-20) in MU	(2019-20) in MU
CESC	Thermal	Titagarh (4x60)	240.00	240.00	0.00	0.00	0.00	0.00
		Southern (2x67.5)	135.00	135.00	41.77	37.89	183.35	165.44
		Budge-Budge (3x250)	750.00	750.00	542.33	500.44	2118.38	1954.38
		Total CESC	1125.00	1125.00	584.10	538.33	2301.73	2119.83
HEL	Thermal	HEL	600.00	600.00	427.82	395.03	1579.24	1457.09
		Total West Bengal	8635.45	8590.45	3114.16	2843.33	13674.64	12491.56
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	165.07	146.67	682.95	610.52
		Talcher-II	220.00	220.00	144.80	128.65	614.10	549.33
		Total Thermal	470.00	460.00	309.87	275.32	1297.06	1159.85
OPGC	Thermal	IB TPS	420.00	420.00	218.26	192.91	1009.32	898.31
		IB TPS U#3(660 MW)	660.00	660.00	80.80	75.75	231.27	206.64
		IB TPS U#4(660 MW)			66.50	62.34	141.74	132.87
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	33.60	33.26	133.54	132.34
		Hirakud-II (Chiplima)	72.00	72.00	23.09	22.86	78.02	77.43
		Balimela (6x60+2x75)	510.00	510.00	133.07	131.34	608.69	604.23
		Rengali (5x50)	250.00	250.00	32.28	31.96	100.62	99.92
		Upper Kolab (4x80)	320.00	320.00	51.08	50.57	256.54	254.47
		Indravati HPS (4x150)	600.00	600.00	126.76	125.11	606.14	600.38
		Mckd.(Odisha drawal)	57.38	57.38	26.58	26.58	105.10	105.10
		Total Hydro	2084.88	2084.88	426.46	421.68	1888.64	1873.86
		RES	499.76	499.76	26.83	26.83	109.16	109.16
		Total Odisha	4134.64	4124.64	1062.21	997.54	4535.44	4270.12
(**) SIKKIM	Hydro	RES	52.11	52.11	3.00	3.00	10.00	10.00
NTPC		MTPS Stg-II	390.00	390.00	102.345	90.01	791.38	709.90
		FSTPP# I&II (3x200+2x500)	1600.00	1600.00	987.70	907.66	3745.41	3450.24
		FSTPP (U# 6)	500.00	500.00	0.00	0.00	616.25	572.35
		KhSTPP (4x210+3x500)	2340.00	2340.00	1347.42	1247.56	5296.20	4894.04
		TSTPP (2x500)	1000.00	1000.00	589.59	541.48	2368.32	2176.52
		BARH STPS II (2X660)	1320.00	1320.00	826.59	780.52	3409.39	3230.12
		BRBCL # 1,2,3(3X250 MW)	750	750	349.99	323.09	1535.70	1420.40
		NPGC			128.66	120.61	208.23	182.68
		Total NTPC	7900.00	7900.00	4332.30	4010.94	17970.88	16642.20
		NHPC	HYDRO	Rangit (3x20)	60.00	60.00	44.05	44.05
Teesta (3x170)	510.00			510.00	351.78	351.78	1271.24	1271.24
TLDP -(4x33+4x40)	292.00			292.00	178.92	178.92	545.37	545.37
Total NHPC	862.00			862.00	574.75	574.75	1950.29	1950.29
MPL (U#1&2)	1050.00			1050.00	308.97	287.91	2049.43	1924.81
APNRL (U#1,2)	540.00			540.00	251.00	228.47	997.44	905.53
GMR (2x350)	700.00			700.00	393.37	365.55	1486.84	1384.78
JITPL (2X600)	1200.00			1200.00	476.08	445.83	1741.11	1624.37
CHUZACHEN** (2x55)	110.00			110.00	77.80	77.80	198.21	198.21
JORETHANG (2x48)	96.00			96.00	66.73	66.73	139.70	139.70
TEESTA URJA St III (6x200)	1200.00			1200.00	918.52	918.52	2858.64	2858.64
Tashilding (2x48.5)	97.00			97.00	74.60	74.60	148.49	148.49
DICKCHU (2x48)	96.00			96.00	77.84	77.84	233.04	233.04
TALCHER SOLAR	10.00			10.00	0.94	0.94	4.87	4.87
Total Thermal (E.R)	28075.00			28000.00	13111.12	12058.28	55380.18	50999.90
EASTERN REGIONAL		Total Hydro (E.R)	5876.38	5876.38	2399.37	2394.47	7979.85	7964.70
		Total RES	1335.92	1335.92	50.11	50.11	227.94	227.94
		TOTAL (E.R)	35287.30	35212.30	15560.59	14502.86	63587.96	59192.53
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	261.71	261.71	668.17	668.17
		Kurichu (4x15)	60.00	60.00	68.70	68.70	135.97	135.97
		TALA (6x170)	1020.00	1020.00	545.60	545.60	987.31	987.31
		DAGACHU (2x63)	126.00	126.00	65.49	65.49	115.76	115.76
		MANDACHU(4x180)	720.00	720.00	188.15	188.15	271.76	271.76
		Grand Total	37573.30	37408.30	16690.24	15632.51	65766.93	61371.50

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF JULY' 2019

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 (2019-20) in MU	Cummulative PLF upto Current Month (%)	
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	0.00	0.00	8.57	1.39	
		Muzaffarpur Stg-I	220.00	220.00	105.17	64.25	401.88	62.39	
		Thermal Total	440.00	430.00	105.17	32.87	410.45	32.60	
	RES		327.90	327.90	19.34		103.42		
	Total BIHAR		767.90	757.90	124.51		513.87		
JHARKHAND									
TVNL	Thermal	TVNL	420.00	420.00	215.42	68.94	807.26	65.64	
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	0.00		0.67		
		RES		39.00	39.00	0.00		0.00	
	Total		169.00	169.00	0.00		0.67		
DVC	Thermal	Bokaro-B(3)	210.00	210.00	0.00	0.00	61.23	9.96	
		Chandrapura (3)	140.00	130.00	0.00	0.00	0.00	0.00	
		Chandrapura(U7 # 8)	500.00	500.00	338.63	91.03	1343.29	91.75	
		Durgapur(4)	210.00	210.00	53.09	33.98	108.66	17.67	
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	727.46	72.97	2830.14	72.13	
		Mezia(U # 7,8)	1000.00	1000.00	313.32	42.11	1996.67	68.19	
		Bokaro-A(1)	500.00	500.00	311.85	83.83	1118.45	76.40	
		Durgapur STPS (U#1,2)	1000.00	1000.00	589.36	79.21	2392.58	81.71	
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	505.08	56.57	1810.74	51.54	
	Koderma STPS (U#1,2)	1000.00	1000.00	576.65	77.51	2448.55	83.63		
	Total Thermal		7100.00	7090.00	3415.44	64.75	14110.30	67.97	
	Hydro	Maithon (U#1,2,3)	63.20	63.20	1.47		3.36		
		Panchet (U#1,2)	80.00	80.00	4.99		11.75		
Tilaya (U#1,2)		4.00	4.00	0.00		0.00			
Hydro Total			147.20	147.20	6.46		15.11		
Total DVC		7247.20	7237.20	3421.90		14125.41			
WEST BENGAL									
WBPDC	Thermal	Bandel TPS	380.00	335.00	97.71	39.20	451.28	46.01	
		Santalalih TPS(U#5&6)	500.00	500.00	349.61	93.98	1381.12	94.34	
		Kolaghat TPS	1260.00	1260.00	360.47	38.45	1594.25	43.21	
		Bakreswar TPP	1050.00	1050.00	461.29	59.05	2466.65	80.23	
		Sagardighi TPP	1600.00	1600.00	471.37	39.60	2393.51	51.09	
		DPPS (110+300+250 *)	660.00	660.00	185.59	37.79	959.29	49.64	
		Thermal Total		5450.00	5405.00	1926.03	47.90	9246.11	58.42
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	20.08		80.73		
		Ramam (4x12.73)	51.00	51.00	35.24		76.17		
		Teesta C.F. (3x3x7.3)	67.30	67.30	7.03		7.03		
		Purulia PSS (4x225)	900.00	900.00	113.86		383.15		
		Total Hydro		1053.30	1053.30	176.21		547.08	
		RES		407.15	407.15	0.00		0.48	

WBPDC,Bandel TPS Unit #3 & Unit #4 (IC=2X82.5 MW,EC=2X60 MW) decommissioned from 01.04.2018.

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF JULY' 2019

ORGANI- SATION	TYPE	POWER STATION	INSTALLED EFFECTIVE		Gross Energy Generation in MU	PLF of Current Month (%)	Cummulative Gross Energy Generation upto Current Month (2019-20) in MU	Cummulative PLF upto Current Month (%)
			CAPACITY (in MW)	CAPACITY (in MW)				
CESC	Thermal	Titagarh (4x60)	240.00	240.00	0.00	0.00	0.00	0.00
		Southern (2x67.5)	135.00	135.00	41.77	41.59	183.35	46.38
		Budge-Budge (3x250)	750.00	750.00	542.33	97.19	2118.38	96.47
		Total CESC	1125.00	1125.00	584.10	69.79	2301.73	69.88
HEL	Thermal		600.00	600.00	427.82	95.84	1579.24	89.89
		Total West Bengal	8635.45	8590.45	3114.16		13674.64	
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	165.07	92.45	682.95	97.19
		Talcher-II	220.00	220.00	144.80	88.46	614.10	95.33
		Total Thermal	470.00	460.00	309.87	90.54	1297.06	96.30
OPGC	Thermal	IB TPS	420.00	420.00	218.26	69.85	1009.32	82.07
		IB TPS U#3(660 MW)	660.00	660.00	80.80	17.59	231.27	17.59
		IB TPS U#4(660 MW)			66.50		141.74	
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	33.60		133.54	
		Hirakud-II (Chiplima)	72.00	72.00	23.09		78.02	
		Balimela (6x60+2x75)	510.00	510.00	133.07		608.69	
		Rengali (5x50)	250.00	250.00	32.28		100.62	
		Upper Kolab (4x80)	320.00	320.00	51.08		256.54	
		Indravati HPS (4x150)	600.00	600.00	126.76		606.14	
		Mckd.(Odisha drawal)	57.38	57.38	26.58		105.10	
		Total Hydro	2084.88	2084.88	426.46		1888.64	
		RES	499.76	499.76	26.83		109.16	
		Total Odisha	4134.64	4124.64	1062.21		4535.44	
(**) SIKKIM	Hydro	RES	52.11	52.11	3.00		10.00	
NTPC		MTPS Stg-II	390	390	102.345	35.27	791.38	69.30
		FSTPP# I&II (3x200+2x500)	1600.00	1600.00	987.70	82.97	3745.41	79.95
		FSTPP (U# 6)	500.00	500.00	0.00	0.00	616.25	42.09
		KhSTPP (4x210+3x500)	2340.00	2340.00	1347.42	77.40	5296.20	77.30
		TSTPP (2x500)	1000.00	1000.00	589.59	79.25	2368.32	80.89
		BARH STPS II (2X660)	1320.00	1320.00	826.59	84.17	3409.39	88.21
		BRBCL # I,2,3(3X250 MW)	750.00	750.00	349.99	62.72	1535.70	69.93
		NPGC			128.66		208.23	
		Total NTPC	7900.00	7900.00	4332.30	71.52	17970.88	76.79
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	44.05		133.68	
		Teesta (3x170)	510.00	510.00	351.78		1271.24	
		TLDP -(4x33+4x40)	292.00	292.00	178.92		545.37	
		Total NHPC	862.00	862.00	574.75		1950.29	
	Thermal	MPL (U#1&2)	1050.00	1050.00	308.97	39.55	2049.43	66.66
		APNRL (U#1,2)	540.00	540.00	251.00	62.48	997.44	63.08
		GMR (2x350)	700.00	700.00	393.37	75.53	1486.84	72.54
		JITPL (2X600)	1200.00	1200.00	476.08	53.32	1741.11	49.55
		CHUZACHEN** (2x55)	110.00	110.00	77.80		198.21	
		JORETHANG (2x48)	96.00	96.00	66.73		139.70	
		TEESTA URJA St III (6x200)	1200.00	1200.00	918.52		2858.64	
		Tashilding (2x48.5)	97.00	97.00	74.60		148.49	
		DICKCHU (2x48)	96.00	96.00	77.84		233.04	
		TALCHER SOLAR	10.00	10.00	0.94		4.87	
		Total Thermal (E.R)	28075.00	28000.00	13111.12	62.10	55380.18	68.16
EASTERN REGIONAL		Total Hydro (E.R)	5876.38	5876.38	2399.37		7979.85	
		Total RES	1335.92	1335.92	50.11		227.94	
		TOTAL (E.R)	35287.30	35212.30	15560.59		63587.96	
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	261.71		668.17	
	Hydro	Kurichu (4x15)	60.00	60.00	68.70		135.97	
	Hydro	TALA (6x170)	1020.00	1020.00	545.60		987.31	
	Hydro	DAGACHU (2x63)	126.00	126.00	65.49		115.76	
		MANDACHU(4x180)	720.00	720.00	188.15		271.76	
		Grand Total	37573.30	37408.30	16690.24		65766.93	

Regional PLF has been calculated without considering the effective capacity of IBTPS-U#4, (660 MW) and New Nabinagar TPS U#1(660 MW) and their generations of 66.50 MU & 128.66 MU respectively during the month of July'19

CONTRIBUTIONS OF DIFFERENT CONSTITUENTS AT THE TIME OF REGIONAL PEAK
DURING THE MONTH OF JULY'2019 (18-7-2019)

Date **18-Jul-19**
Time **21.00** Hrs.
Frequency **49.91** Hz.

(All Fig. in MW)

System/State	Installed Capacity	Effective Capacity	Hydro	Thermal	RES	Total
BSPHCL	768	758	0	149	0	149
JUVNL	589	589	0	273	0	273
DVC	7247	7237	18	4850	0	4868
ODISHA	4135	4125	878	754	52	1684
WBSEDCL	6250	6205	780	2239	0	3019
TLDP	292	292	287	0	0	287
HEL HALDIA	600	600	0	554	0	554
CESC	1125	1125	0	814	0	814
DPL	660	660	0	0	0	0
SIKKIM	52	52	0	0	0	0
NTPC	7900	7900	0	6075	0	6075
NHPC	570	570	587	0	0	587
CHUKHA	360	270	389	0	0	389
KURICHU	60	60	100	0	0	100
TALA	1020	1020	812	0	0	812
MPL	1050	1050	0	471	0	471
OPGC (660 MW)	0	0	0	-30	0	-30
APNRL	540	540	0	456	0	456
Kamalganga (GMR)	700	700	0	641	0	641
JITPL	1200	1200	0	544	0	544
Chuzachen	110	110	118	0	0	118
Jorethang	96	96	102	0	0	102
TEESTA URJA St III	1200	1200	1306	0	0	1306
Tashilding	97	97	110	0	0	110
DICKCHU	96	96	107	0	0	107
<u>Daghachu</u>	126	126	87	0	0	87
<u>Solar</u>	10	10	0	0	0	0
<u>Mangdechu</u>	720	720	363	0	0	363
<u>Total</u>	37573	37408	6045	17789	52	23886
Import From Captive:						1164
Export To:						
NER						522
SR						1167
WR						-3820
NR						3188.90
Bangladesh						702.62
Nepal						136.43
Total						1896
➤ I Net Peak Demand Met (MW) :						23154
Indicates Export(+)/Import(-) of Power						

Hourly Load Generation Data OF ER On Regional Peak Day During The Month of JULY'2019 (18-7-2019)

(All Figures in MW)

Hrs.	Generation			Import from Captive	Net		Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	Total		Import From						
					CHPS, KHPS & TALA						
1	3538	17457	20995	1181	1789	1970	21996	73	37	22106	
2	3656	17182	20838	1154	1791	2007	21776	25	33	21833	
3	3626	16852	20478	1174	1799	2054	21398	54	33	21484	
4	3506	16619	20125	1209	1799	1923	21210	35	32	21277	
5	3492	16676	20169	1199	1796	2346	20818	56	33	20907	
6	3526	16570	20096	1191	1773	3587	19474	77	20	19570	
7	3479	16492	19971	1143	1764	4445	18433	82	9	18524	
8	3450	16193	19643	1005	1766	3871	18543	8	19	18571	
9	2979	16180	19159	1005	1779	2649	19294	-3	17	19307	
10	3389	16411	19800	973	1787	2709	19850	52	7	19910	
11	3293	16391	19684	1001	1756	1997	20444	2	9	20455	
12	3352	16643	19994	992	1238	1578	20646	11	8	20665	
13	3475	16815	20289	957	1237	1814	20670	34	11	20715	
14	3106	16895	20001	1013	1271	1732	20552	7	12	20572	
15	3701	16904	20605	1017	1413	2606	20429	41	59	20529	
16	3754	16907	20662	999	1403	2498	20566	25	18	20609	
17	3591	17069	20660	1017	1531	3234	19973	31	13	20018	
18	3556	17226	20782	979	1581	4207	19135	-10	7	19142	
19	3974	17234	21209	1076	1578	3773	20090	9	10	20108	
20	4153	17565	21718	1191	1731	2244	22395	57	52	22504	
21	4346	17789	22135	1164	1751	1896	23154	71	21	23246	
22	4228	17824	22051	1203	1771	2023	23002	50	36	23088	
23	4251	17734	21986	1190	1781	1991	22966	22	29	23017	
24	4225	17668	21893	1192	1779	1927	22937	24	15	22976	

Hourly Load Generation Data of ER On Regional Lean Day During The Month of JULY'2019 (11-7-2019)

(All Figures in MW)

Hrs.	Generation			Import from Captive	Net		Net Export to other region	Demand Met	Freq. Correction	Load Shed	Requirement
	Hydro	Thermal	Total		Import From						
					CHPS, KHPS & TALA						
1	3161	17442	20602	846	1821	4652	18617	-16	9	18626	
2	3090	17342	20432	846	1813	5223	17867	-47	15	17882	
3	2962	16295	19257	861	1825	4671	17272	-21	16	17288	
4	2805	15562	18368	839	1831	4147	16891	-31	14	16905	
5	2859	14990	17849	832	1822	4105	16398	-24	15	16413	
6	3066	15274	18339	798	1804	5438	15503	3	16	15522	
7	2927	16479	19406	847	1805	7093	14964	20	17	15001	
8	2794	16595	19389	710	1811	7211	14700	-22	17	14717	
9	2754	15719	18472	673	1817	6242	14721	-44	17	14738	
10	2924	14601	17525	681	1823	4900	15128	-23	18	15147	
11	2836	13763	16600	686	1832	3848	15269	-37	16	15286	
12	2678	13619	16297	691	1820	3277	15531	-35	19	15550	
13	2739	13549	16288	681	1830	3264	15535	-1	15	15549	
14	2896	13626	16522	666	1826	3601	15413	5	17	15436	
15	3033	13985	17017	682	1826	3946	15580	44	18	15642	
16	3155	14835	17990	665	1824	4493	15987	52	19	16058	
17	3174	15876	19051	627	1824	5568	15934	31	20	15984	
18	2789	15829	18618	777	1810	5617	15589	-15	16	15590	
19	3250	16403	19653	861	1793	5275	17032	-9	12	17035	
20	4014	17529	21543	874	1786	5196	19008	65	9	19081	
21	4009	18157	22166	861	1798	5518	19306	76	7	19389	
22	3989	18045	22034	886	1819	5235	19504	55	6	19565	
23	4141	17862	22002	874	1842	5567	19151	75	11	19238	
24	3269	17474	20743	868	1819	5165	18264	-22	12	18277	

NOTIFIED POWER CUTS/RESTRICTIONS ON INDUSTRIES & POWER SUPPLY TO AGRICULTURE SECTOR

FOR THE MONTH OF JULY 2019

POWER CUT / RESTRICTIONS

BSPHCL	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 12.54 MU
JUVNL	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 5.73 MU
DVC	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 0.00 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 11.99 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 Jul-19

D A T E	H O U R S										INST. FREQ.				15 MIN. INTEGRATED			
	00	05	10	17	22	00	<49.9	49.9	>50.05	49.9	MAX	HRS.	MIN	HRS.	MAX	HRS.	MIN	HRS.
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	HZ		HZ		HZ		HZ	
01-Jul	49.98	50.00	50.00	49.98	50.01	49.99	7.30	73.50	19.20	73.50	50.21	21:54	49.80	14:13	50.15	0:00	49.86	0:00
02-Jul	50.00	50.00	49.99	49.97	50.00	49.99	4.70	78.40	16.90	78.40	50.18	8:02	49.78	21:10	50.08	0:00	49.87	0:00
03-Jul	50.01	49.99	49.98	49.95	49.93	49.98	12.60	70.10	17.30	70.10	50.15	13:01	49.74	6:14	50.09	0:00	49.84	0:00
04-Jul	49.94	50.01	50.04	49.98	50.00	50.00	11.00	60.50	28.40	60.50	50.22	0:12	49.64	0:06	50.17	0:00	49.73	0:00
05-Jul	49.99	49.99	50.01	50.03	50.03	50.01	5.10	68.80	26.10	68.80	50.23	13:03	49.76	3:56	50.18	0:00	49.85	0:00
06-Jul	50.02	49.98	50.02	50.00	50.03	50.01	3.80	68.40	27.80	68.40	50.19	13:02	49.81	15:51	50.13	0:00	49.90	0:00
07-Jul	50.02	50.04	50.06	49.97	49.99	50.02	2.80	61.90	35.40	61.90	50.32	13:06	49.83	19:53	50.24	0:00	49.91	0:00
08-Jul	50.02	50.02	50.00	50.01	50.02	50.01	3.70	66.90	29.40	66.90	50.18	8:02	49.82	6:15	50.12	0:00	49.89	0:00
09-Jul	50.04	50.01	50.02	50.02	50.01	50.02	1.40	65.20	33.30	65.20	50.26	13:02	49.77	14:15	50.19	0:00	49.90	0:00
10-Jul	50.03	50.02	50.02	50.02	50.04	50.02	1.60	59.00	39.40	59.00	50.29	8:03	49.84	6:15	50.18	0:00	49.93	0:00
11-Jul	50.05	50.03	49.99	49.95	49.96	50.00	11.80	53.60	34.60	53.60	50.19	12:01	49.75	22:23	50.12	0:00	49.80	0:00
12-Jul	50.01	49.95	50.00	49.91	49.95	49.97	18.50	63.10	18.40	63.10	50.20	13:02	49.71	21:10	50.11	0:00	49.81	0:00
13-Jul	50.01	50.04	49.98	50.00	49.98	50.00	3.30	73.10	23.70	73.10	50.17	18:05	49.81	11:48	50.11	0:00	49.90	0:00
14-Jul	50.02	50.04	50.02	49.99	49.98	50.01	2.00	68.80	29.20	68.80	50.23	8:30	49.79	15:43	50.15	0:00	49.90	0:00
15-Jul	50.04	50.01	50.03	50.00	50.00	50.02	2.70	61.80	35.50	61.80	50.32	15:50	49.84	6:08	50.23	0:00	49.88	0:00
16-Jul	50.04	50.03	50.01	50.02	49.96	50.02	2.70	68.10	29.20	68.10	50.27	8:30	49.66	22:11	50.19	0:00	49.91	0:00
17-Jul	50.01	49.96	49.95	49.91	49.93	49.95	20.94	67.34	11.72	67.34	50.15	7:31	49.71	6:14	50.10	0:00	49.79	0:00
18-Jul	49.94	49.94	49.97	49.96	49.97	49.95	17.70	76.20	6.10	76.20	50.14	12:34	49.76	6:10	50.06	0:00	49.79	0:00
19-Jul	50.00	50.00	50.02	50.01	49.96	50.00	3.30	74.40	22.30	74.40	50.27	18:02	49.67	19:12	50.17	0:00	49.88	0:00
20-Jul	50.00	50.02	50.02	49.98	49.93	50.00	5.20	70.20	24.60	70.20	50.20	18:05	49.69	22:16	50.12	0:00	49.86	0:00
21-Jul	49.96	50.01	50.00	49.93	49.98	49.98	10.10	70.70	19.20	70.70	50.19	18:02	49.74	20:11	50.08	0:00	49.76	0:00
22-Jul	50.00	49.97	49.97	49.93	49.98	49.97	15.34	72.24	12.42	72.24	50.14	16:05	49.66	18:57	50.12	0:00	49.83	0:00
23-Jul	49.95	49.96	49.99	49.97	49.96	49.97	14.50	71.10	14.40	71.10	50.16	8:02	49.66	6:15	50.12	0:00	49.72	0:00
24-Jul	50.00	50.04	50.03	50.02	50.01	50.02	2.00	63.10	34.90	63.10	50.23	18:03	49.81	14:15	50.22	0:00	49.90	0:00
25-Jul	50.01	50.01	50.01	50.00	50.03	50.01	15.80	78.20	5.90	78.20	50.13	12:03	49.78	21:08	50.04	0:00	49.85	0:00
26-Jul	49.99	49.96	50.01	50.00	50.04	50.00	5.80	70.00	24.20	70.00	50.22	16:05	49.76	5:17	50.11	0:00	49.85	0:00
27-Jul	50.02	50.00	50.01	49.98	50.01	50.00	4.50	68.40	27.00	68.40	50.29	13:05	49.78	14:17	50.22	0:00	49.88	0:00
28-Jul	50.04	50.01	50.04	49.97	50.03	50.02	1.30	67.80	30.90	67.80	50.22	13:05	49.85	6:15	50.18	0:00	49.93	0:00
29-Jul	50.02	49.99	49.99	50.01	50.04	50.00	2.80	71.30	26.00	71.30	50.19	10:01	49.85	13:29	50.09	0:00	49.90	0:00
30-Jul	49.98	49.96	49.99	49.96	49.98	49.98	11.60	75.60	12.80	75.60	50.20	13:01	49.78	6:24	50.08	0:00	49.82	0:00
31-Jul	50.01	49.99	50.00	49.99	50.01	50.00	6.80	69.50	23.70	69.50	50.22	0:54	49.71	0:26	50.11	0:00	49.80	0:00
MAX	50.05	50.04	50.06	50.03	50.04	50.02	20.94	78.40	39.40	78.40	50.32		49.85		50.24		49.93	
MIN	49.94	49.94	49.95	49.91	49.93	49.95	1.30	53.60	5.90	53.60	50.13		49.64		50.04		49.72	
AVG	50.01	50.00	50.00	49.98	49.99	50.00	7.53	68.59	23.87	68.59	50.21		49.77		50.14		49.85	

SUMMARY:

Avg. Frequency : 50.0 Hz.

Instantaneous Frequency :

Maximum Frequency : 50.32 Hz at 13:06 Hrs.

Minimum Frequency : 49.64 Hz at 00:06 Hrs.

15 Minutes Integrated Frequency :

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

Minimum Frequency : 49.72 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	7.53	68.59	23.87

VOLTAGE ANALYSIS

MAXIMUM & MINIMUM VOLTAGES RECORDED AT IMPORTANT 400 kV S/S IN THE MONTH OF JULY'2019

(All figs. in kV)

PGCIL	BINAGURI		MAITHON		JEERAT		BIHARSHARIFF	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	419	397	421	394	423	376	421	390

PGCIL	MUZAFFARPUR		JAMSHEDPUR		ROURKELA		JEYPORE	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	424	382	418	392	413	397	418	403

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 48.6 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
Jul-19**

(All figs.in mtrs.)

Name of the Reservoirs	FRL	MDDL	As on last day of the		As on first day of this month & date	
			(31-07-19)	(31-07-18)		
Hirakud	192	180	182.79	186.21	182.43	01.07.19
Balimela	462	439	445.56	450.56	443.67	01.07.19
Rengali	123	109	111.09	116.21	110.65	01.07.19
Upperkolab	858	844	849.06	850.58	846.15	01.07.19
Indravati	642	625	633.50	634.64	628.44	01.07.19
Subernrekha	590	580	585.09	586.01	584.48	01.07.19

B. CPP/IPP IMPORT by Eastern Region Constituents during Jul-19

(All figs. are in MU)

System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
JUVNL	0	0	0	0	0	0	0	0	46.57
West Bengal	69.71	24.31	0	0	0	0	0	37.88	131.89
ODISHA	0	0	96.51	161.67	3.45	0.04	0	407.51	669.18
DVC	0	0	0	0	0	0	7.06	0	7.06
TOTAL	69.71	24.31	96.51	161.67	3.45	0.04	7.06	445.39	854.69

C. Distribution of Schedule Supply among Key Customers by IPPs during Jul-19

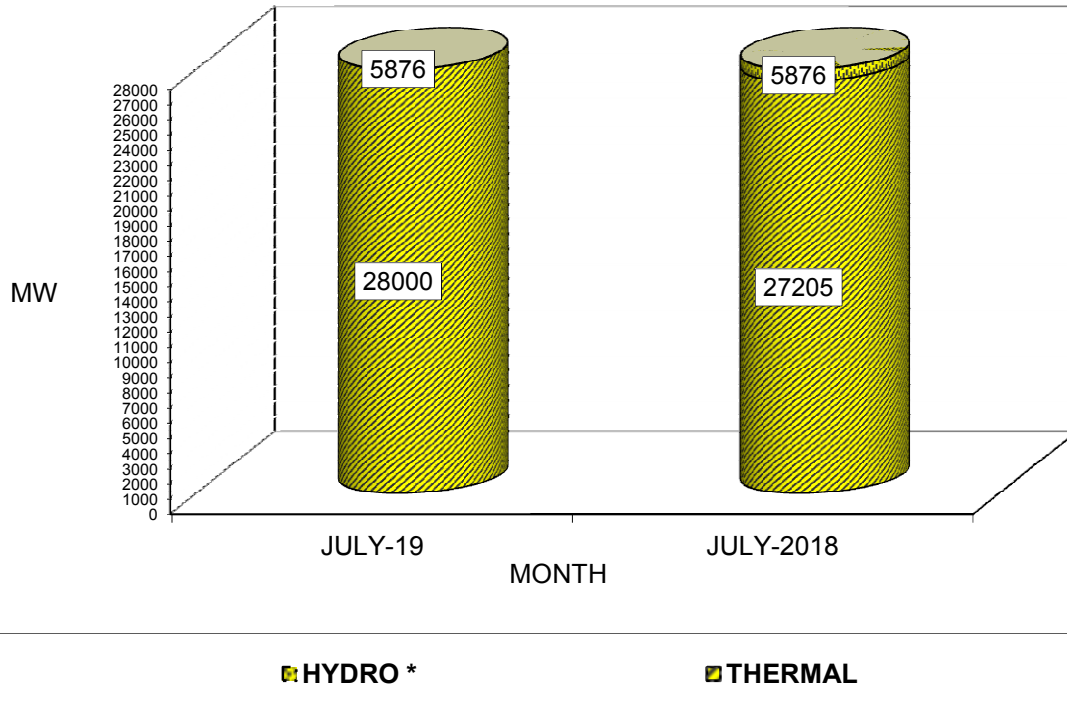
(All figs. are in MU)

IPP	TPDDL	WBSEDCL/ WBPDCD	DVC	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	83.18	87.08	50.45	0.00	0	0	67.06	287.77
Sterlite	0	0	0	0	0.00	0	0.00	0.00
APNRL	0	14.88	0	23.66	0.00	130.48	68.46	237.48
Total	83.18	101.96	50.45	23.66	0.00	130.48	135.52	525.25

Task/ Works performed by ERPC during JULY, 2019		
Sl. No.	Period	Date of Report
1	Compensation Statement for March-19	02.07.2019
2	Compensation Statement for April-19	02.07.2019
3	REA June 2019	03.07.2019
4	RTA June-2019	03.07.2019
5	DSM, FRAS & SCED Accounts 100619-160619	03.07.2019
6	URS May-19	03.07.2019
7	VAR Account 100619-160619	03.07.2019
8	Progress Report-May 2019	03.07.2019
9	Bilateral REA for June -2019	04.07.2019
10	DC- Teesta III – June 2019	04.07.2019
11	DC-MPL-June 2019	04.07.2019
12	REA Bhutan June-19	08.07.2019
13	DSM, FRAS & SCED Accounts 17.06.19-23.06.19	12.07.2019
14	VAR Account 170619-230619	12.07.2019
15	AS-3 Format 16.07.19-15.08.19	12.07.2019
16	BRBCL share allocation w.e.f 16.07.2019	16.07.2019
17	DSM, FRAS, SCED Accounts 240619-300619 & RRAS Account 100619-300619	23.07.2019
18	VAR Account 240619-300619	23.07.2019
19	DSM, RRAS, FRAS & SCED Accounts 010719-070719 & Revised SCED A/c 100619-160619	29.07.2019
20	VAR Account 010719-070719	29.07.2019
21	URS June-19	30.07.2019
22	RTA January-2016(Rev-II), February-2016(Rev-II) & March-2016(Rev-II)	31.07.2019
23	DSM, RRAS, FRAS & SCED Accounts 080719-140719	31.07.2019
24	VAR Account 080719-140719	31.07.2019
25	Revised Transmission System Availability Certificate for POWERGRID Transmission Elements for March-19	22.07.2019
26	Monthly progress report for the month of June-19	31.07.2019
27	Provisional Power Supply Position for June-2019	05.07.2019
28	Revised Power Supply Position for June-2019	30.07.2019

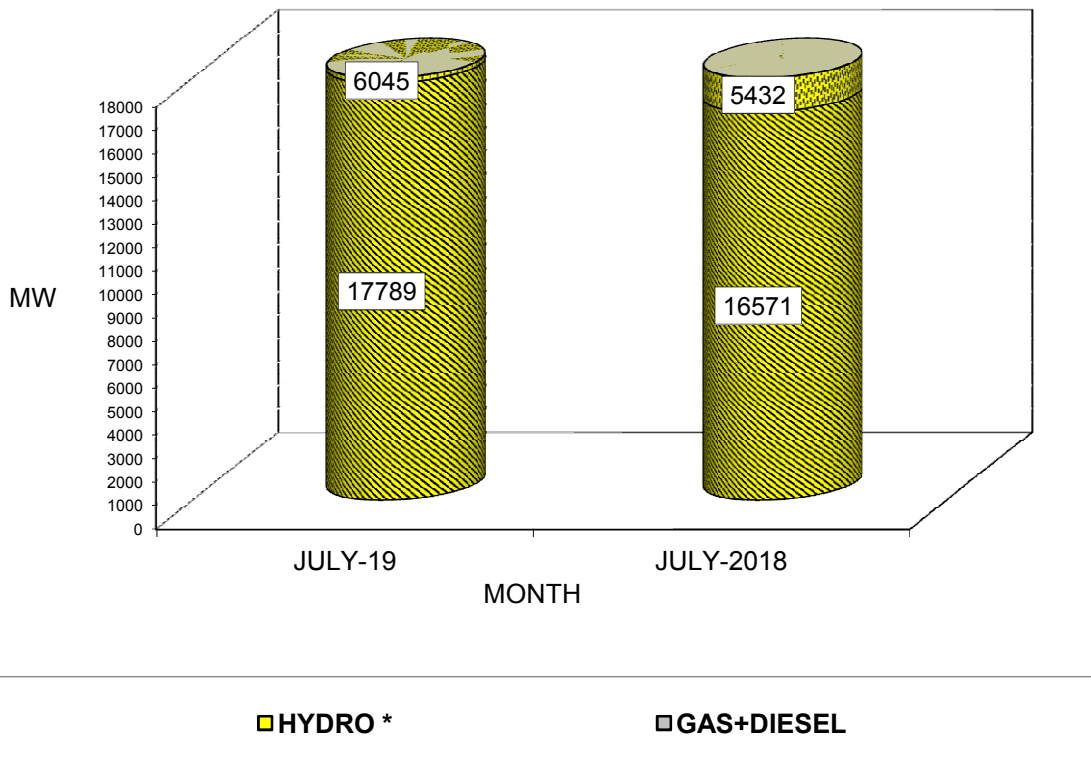
List of Meetings / Workshops held during JULY, 2019			
Sl. No.	Description	Date	Venue
1	7th SSCM	01.07.2019	ERPC, Kolkata
2	40th CCM	02.07.2019	ERPC, Kolkata
3	2nd ERSCT Meeting	05.07.2019	Siliguri
4	Special Meeting on Low Voltage issue in WB System	08.07.2019	ERPC, Kolkata
5	Monthly ISO Review Meeting	08.07.2019	ERPC, Kolkata
6	Meeting on OPGC Issue	16.07.2019	ERPC, Kolkata
7	Meeting on OCC Shutdown	17.07.2019	ERLDC, Kolkata
8	81st PCC Meeting	18.07.2019	ERPC, Kolkata
9	159th OCC Meeting	19.07.2019	ERPC, Kolkata
10	Training for Power System Engineers	22.07.2019 to 26.07.2019	AIPM, Kolkata
11	Meeting with CPWD	29.07.2019	ERPC, Kolkata
12	4 th Special SCADA Meeting	31.07.2019	ERLDC, Kolkata

EFFECTIVE CAPACITY OF EASTERN REGIONAL GRID



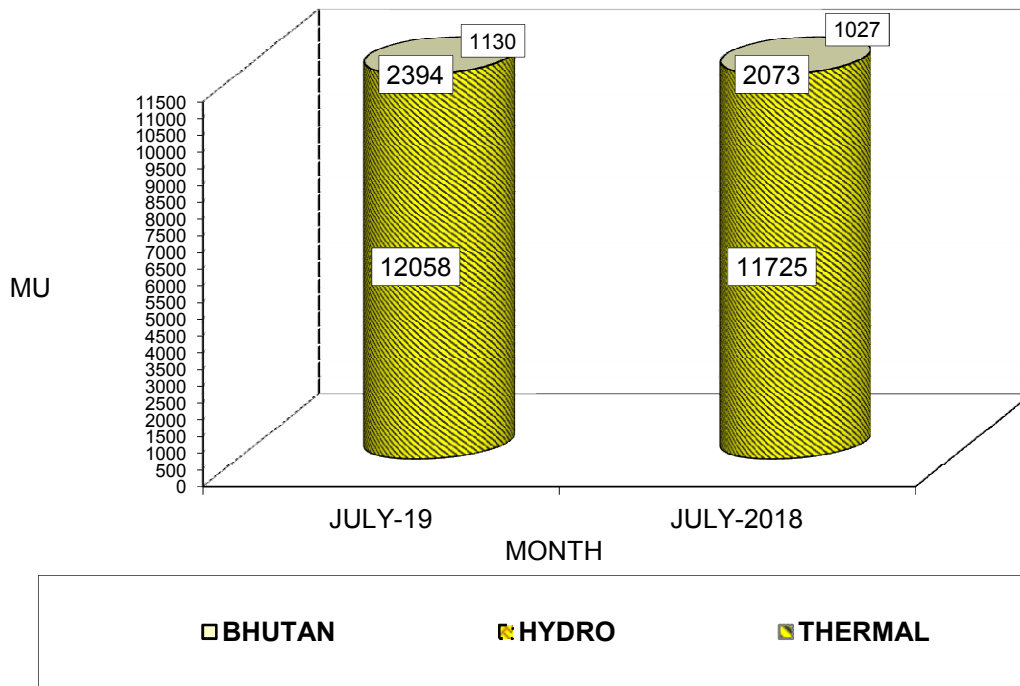
*Excludes 1350 MW contribution from HEPs of Bhutan

GENERATION CORRESPONDING TO PEAK DEMAND MET

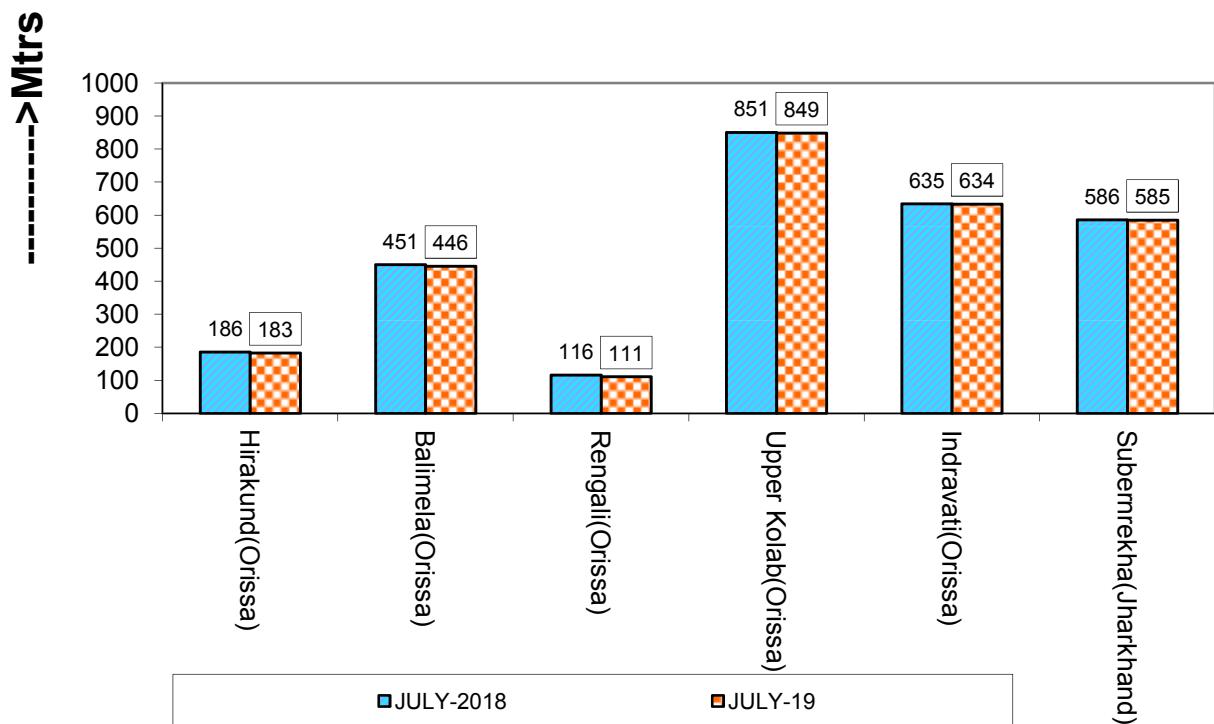


*Includes contribution from HEP of Bhutan

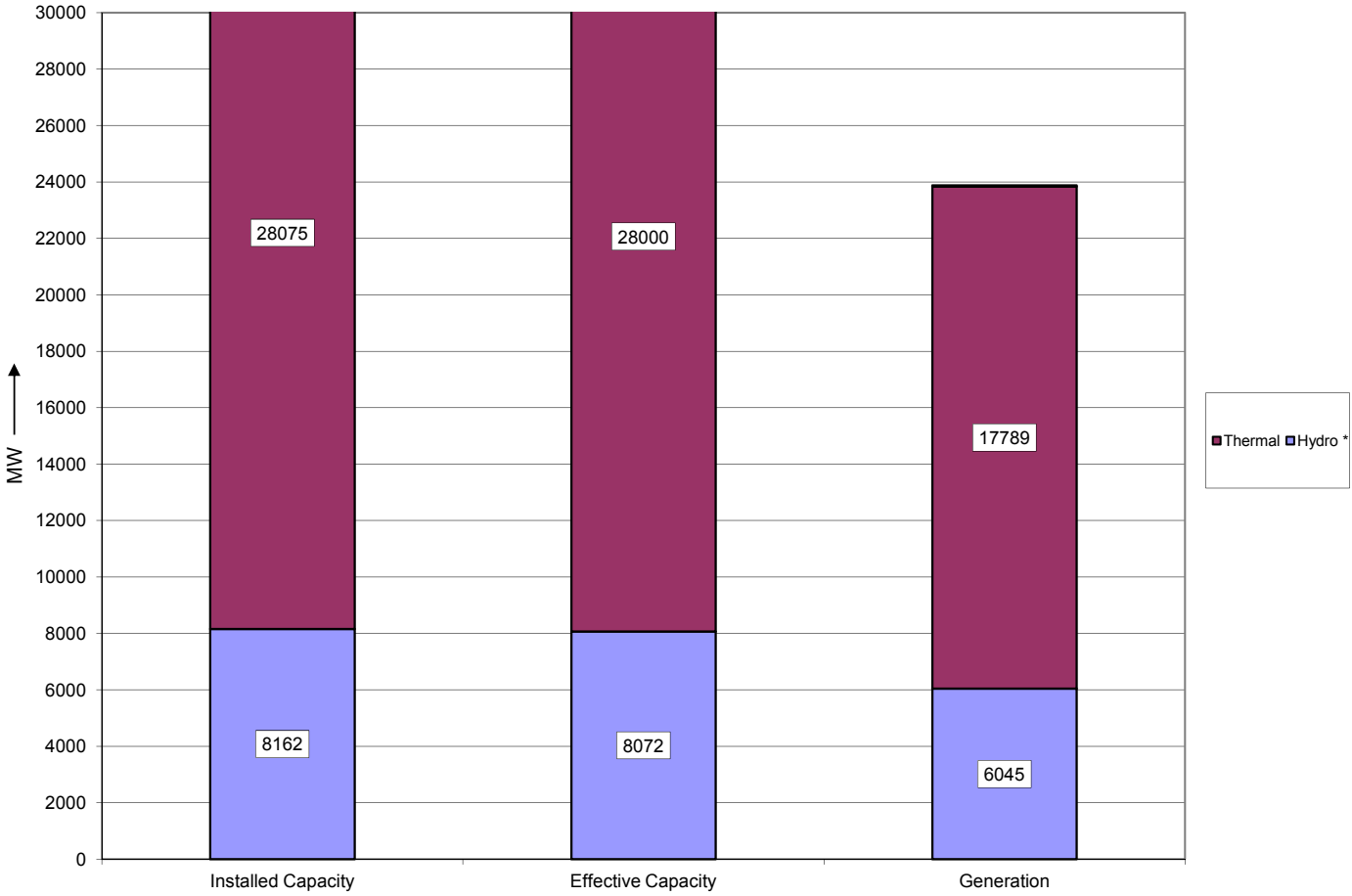
NET ENERGY GENERATION



RESERVOIR LEVEL OF HPS OF ER (RECORDED ON LAST DAY OF MONTH)

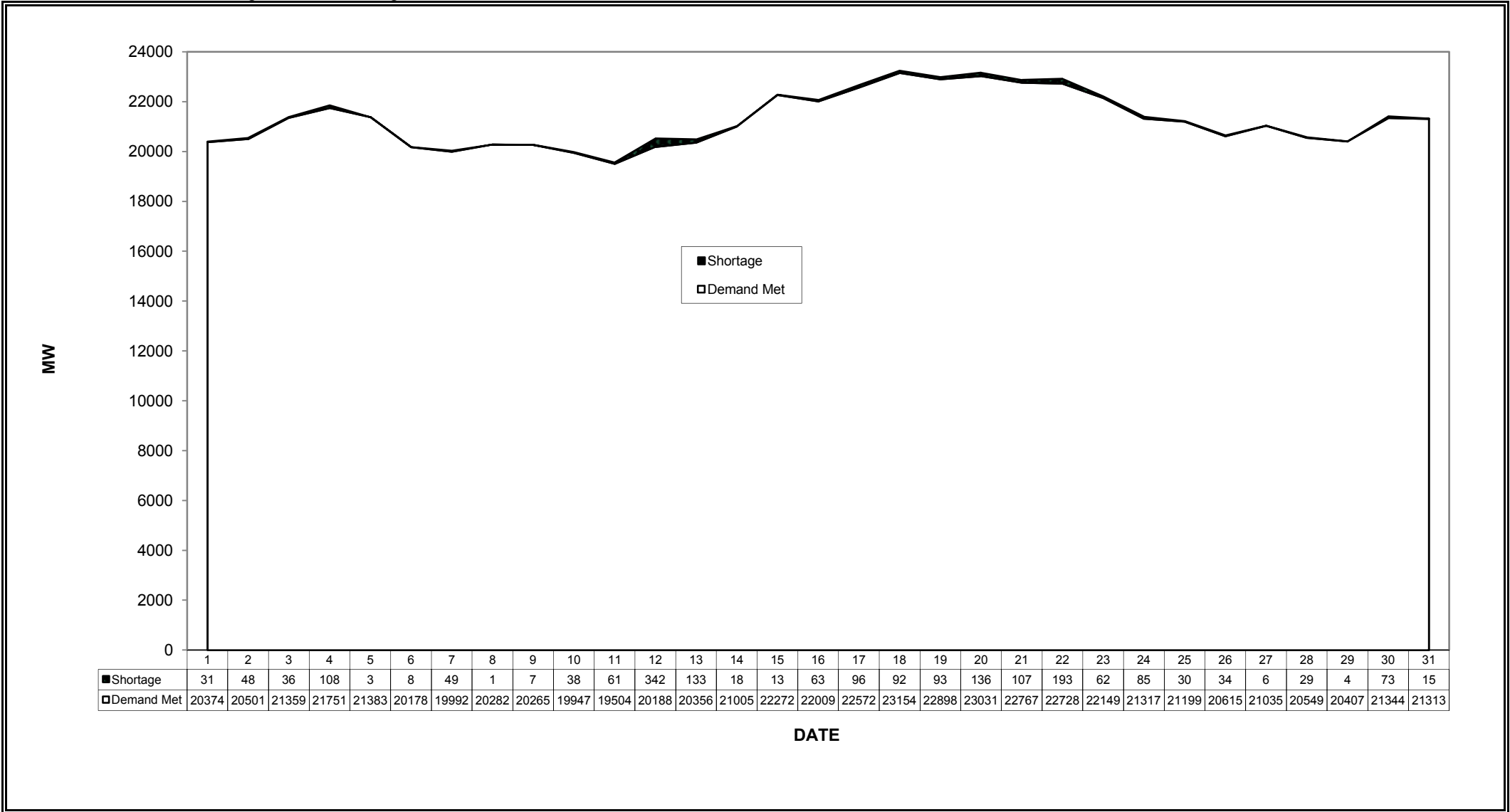


Capacity / Actual Generation Pattern of ER on Peak Day (18-7-2019) at 21.00 hrs.

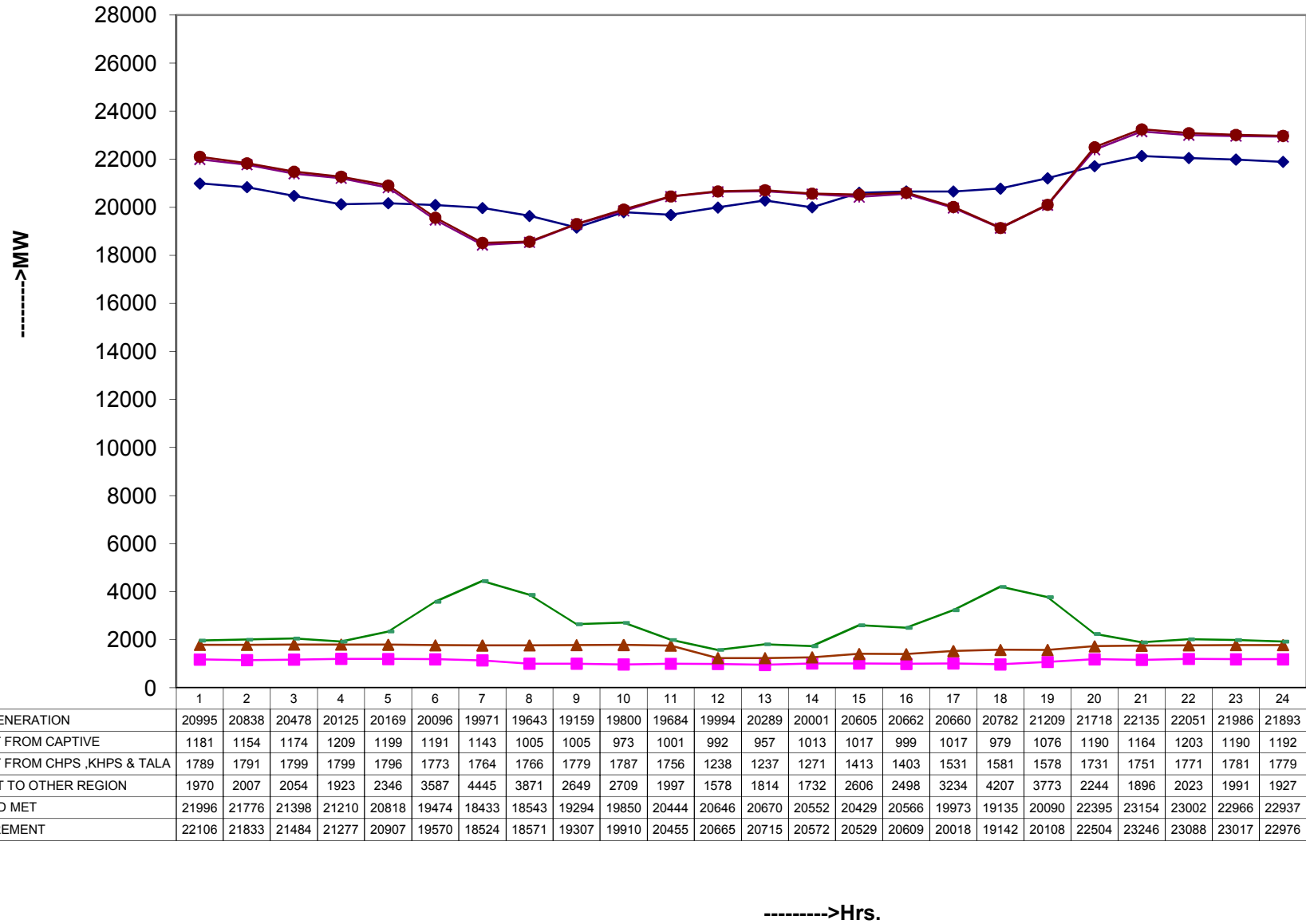


(*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

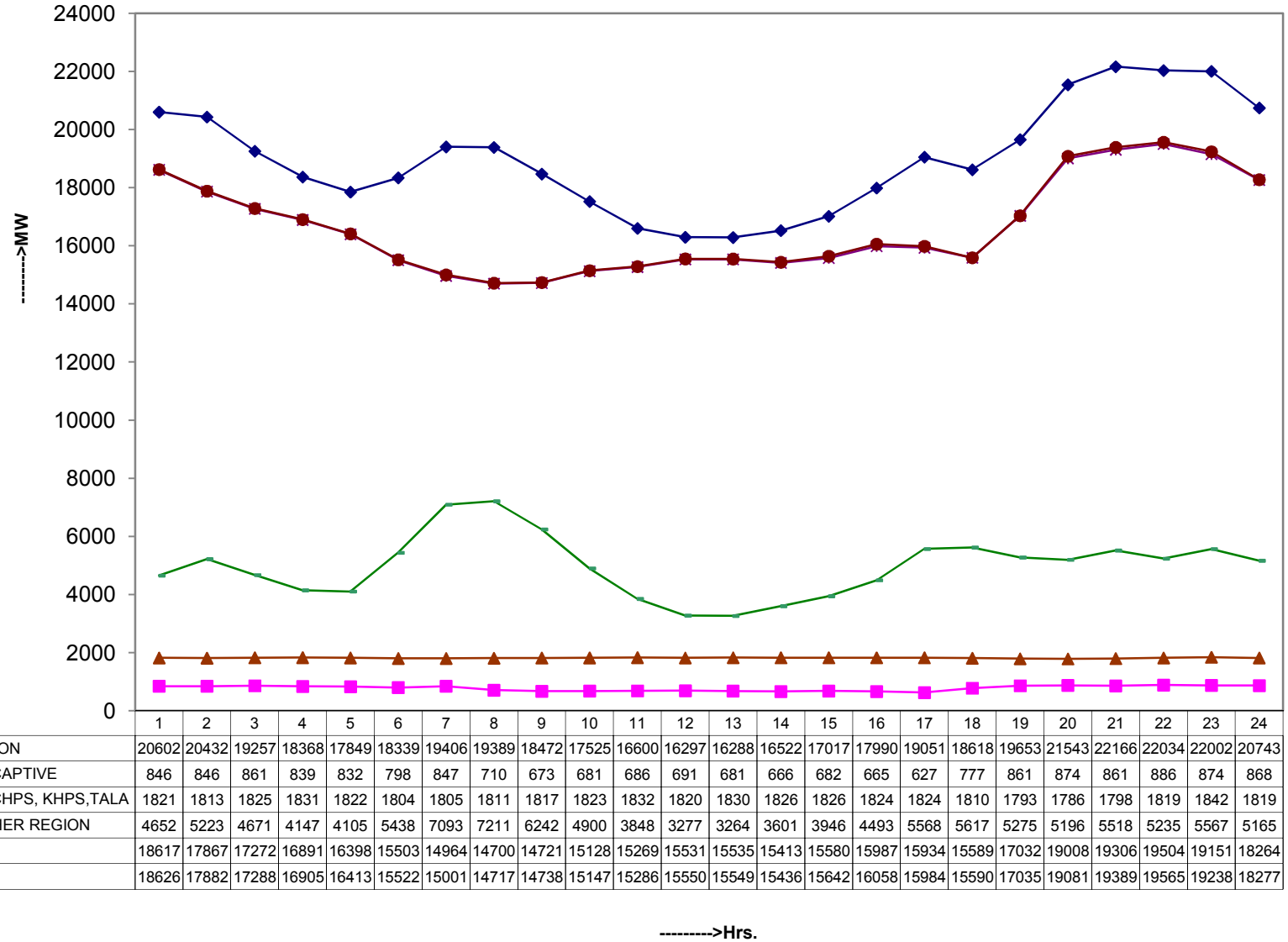
Peak Demand Met / Shortage of Eastern Region For The Month Of JULY'2019



Hourly Load Generation Data OF ER On Regional Peak Day During The Month of JULY'2019 (18-7-2019)

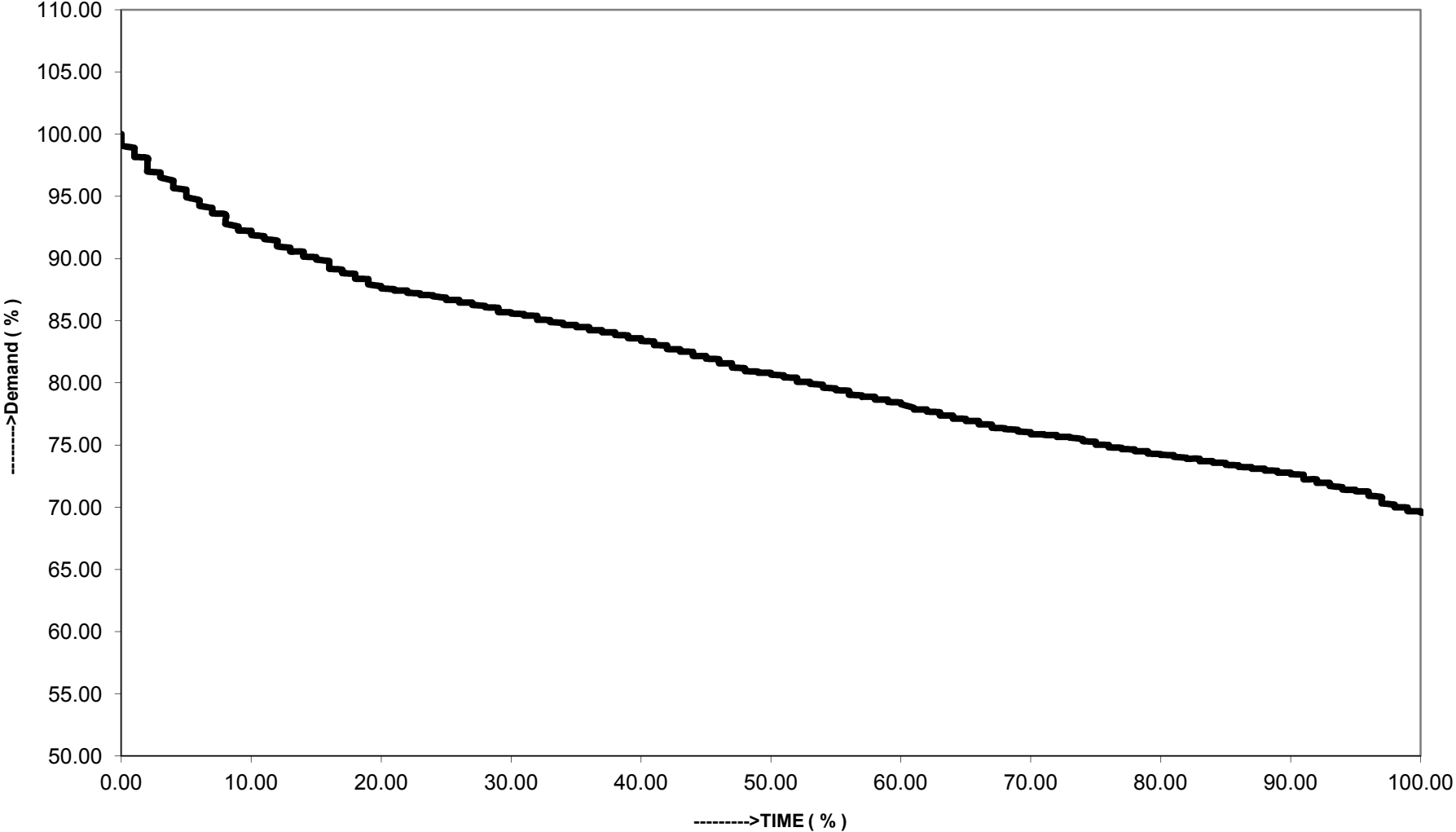


Hourly Load Generation Data of ER On Regional Lean Day During The Month of JULY'2019 (11-7-2019)



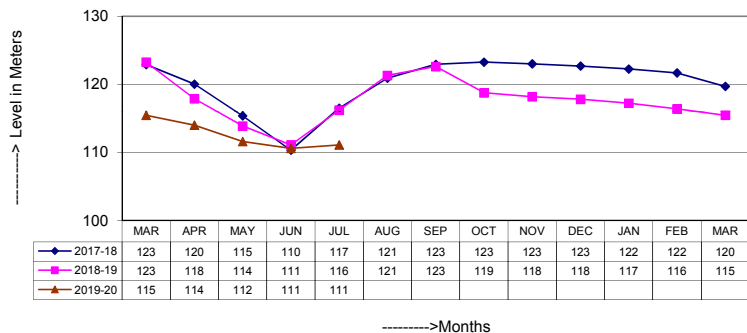
Monthly Load Duration Curve of Eastern Region for JULY-19

Maximum Demand met : 23154 MW
Minimum Demand met: 14700 MW

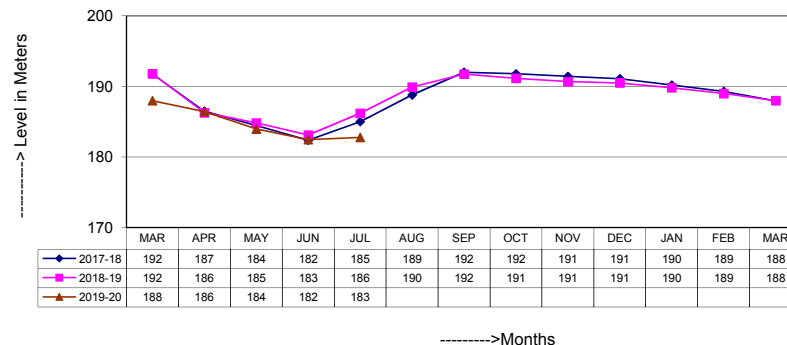


WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH

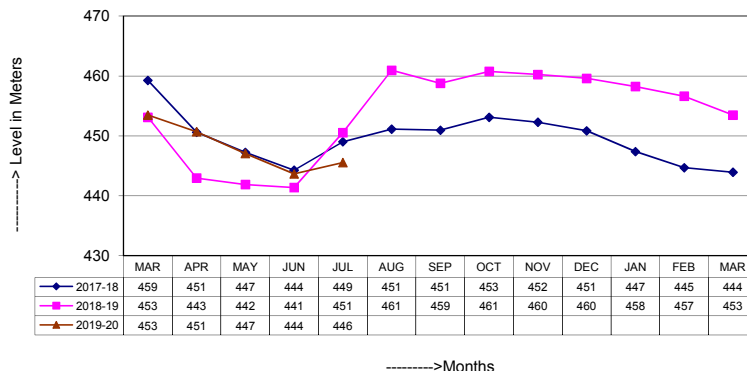
RENGALI RESERVOIR LEVEL



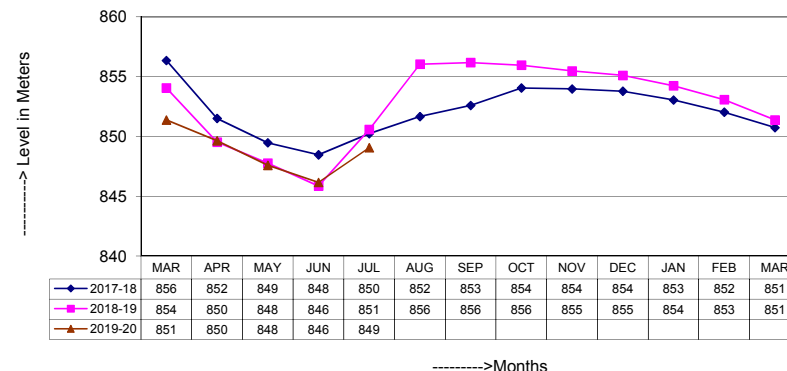
HIRAKUD RESERVOIR LEVEL



BALIMELA RESERVOIR LEVEL



UPPER KOLAB RESERVOIR LEVEL



INDRAVATI RESERVOIR LEVEL



SUBERNREKHA RESERVOIR LEVEL

