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विद्युत मंत्रालय

Ministry of Power

पूर्वी क्षेत्रीय विद्युत समिति

EASTERN REGIONAL POWER COMMITTEE

मासिक प्रगति रिपोर्ट

**PROGRESS REPORT FOR THE MONTH
OF**

अप्रैल - 2018

APRIL - 2018

पूर्वी क्षेत्रीय विद्युत समिति

Eastern Regional Power Committee

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Highlights of Eastern Regional Power System for April-2018

- The **Maximum Net Demand** met of **Eastern Region (ER)** during the month of **April, 2018** was **21058 MW** which is 9.88% more than the **April, 2017** (19164 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 **April, 2018** was **393.59 MU** excluding export, which is almost same as corresponding period of last year (394.05 MU).
- **The Average regional PLF of thermal units 70.35 % during the month**, which is 7.65% more than the corresponding period of the last year (62.70%).
- **NTPC (TTPS)** registered the highest PLF of **98.92 %**, followed by **DVC (KodermaSTPS) (97.57%)** & **CESC (Budge- Budge) 97.45%** during the month of **April, 2018**.
- **Total Net generation** of ER was **22117 MW** against total **Effective Capacity of 35443 MW** (including that of Bhutan), and import from CPPs was 1111 MW at the time of Regional peak (21058 MW on 19.04.18 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 79.70% of time during the period. **Average frequency** for the month was **49.96 Hz**. The instantaneous maximum and the minimum frequency touched were 50.21 Hz and 49.61 Hz respectively. The integrated (Fifteen minutes time block average) maximum and minimum frequency were **50.13 Hz** and **49.63 Hz** respectively (**refer Annexure-I**).
- The **Maximum Voltage** recorded **430 KV** at Jeypore 400 KV S/s whereas the minimum voltage recorded 372 KV at Jeypore 400 KV S/s of Power grid.
- **The Maximum Export from ER to outside region was 6135 MW on 7th April, 2018 at 18.00 hrs.** Total net energy export during the month was **2710.06 MU** which corresponds to 19.56% of ex-bus total generation (13854.08 MU) of Eastern Region.
- **The import from CPPs/IPP**s was **728.33 MU**.

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

Export / Import by Bihar	Apr, 2018(In MU)	Cum. (Apr'18- Apr'18) in MU
Export to NEPAL by Bihar (NBPDC)	194.41	194.41
Export to NEPAL by NVVN	84.91	84.91

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

Export	During Apr, 2018(In MU)	Cum. (Apr'18- Apr'18) in MU
Exchange between India & Bangladesh	198.54	198.54

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

Region	Max. Export of Power ER (MW)	Max. Import of Power by ER (MW)	Net Export of Energy (MU)
NR	3229	0	1374.18
WR	590	2592	-542.98
SR	3122	0	1354.62
NER	1410	526	240.80

SALIENT FEATURES

(YEAR TO YEAR COMPARISION)

		Apr-18	APR-2017	CHANGE	% CHANGE
1)	Effective Capacity (end of the Month)				
	THERMAL (MW)	27205	27755	-550	-1.98
	HYDRO (MW)	5876	4846	1030	21
	DIESEL (MW)	0	7	-7	0
	SOLAR (MW)	886	10	0	0
	TOTAL (MW)	33967	32618	1349	4.14
2)	Peak Demand (MW)	21128	19387	1741	8.98
3)	Peak Demand Met (MW)	21058	19164	1894	9.88
4)	Shortage (MW)	70	224	-154	-68.77
5)	% Shortage	0.33	1.15	-0.82	-71.21
6)	Average Energy Requirement Per Day (MU)	396.98	397.91	-0.93	-0.23
7)	Average Energy Availability Per Day (MU)	393.59	394.05	-0.46	-0.12
8)	Average Shortage Per Day (MU)	3.39	3.86	-0.47	-12.30
9)	% Shortage	0.85	0.95	-0.10	-10.23
10)	Net Generation for the Month				
	Thermal (MU)	12726.31	11364.68	1361.63	11.98
	Hydro (MU)	1093.53	1174.41	-80.88	-6.89
	Diesel (MU)	0.00	0.00	0.00	-
	Total (MU)	13854.08	12539.09	1314.99	10.49
11)	Generation at the Time of Max. Regional Demand Met (19-04-18 at 21.00 Hrs.)				
	Thermal (MW)	19014	16432	2582	15.71
	Hydro (MW)	3103	3615	-512	-14.17
	Diesel (MW)	0	0	0	-
	Total (MW)	22117	20047	2070	10.32
12)	Inter-Regional Energy Transfer				
	Export (MU)	3253.04	2380.34	872.70	36.66
	Import (MU)	542.98	1178.31	-635.33	-53.92
	Net Exp.(+)/Net Imp.(-) (MU)	2710.06	1202.03	1508.03	125.46
13)	Import From Captive(MU)	728.33	910.08	-181.75	-19.97
14)	Peak Inter Regional Power Transfer				
	Max Export (MW) on 07-04-18 at 18.00Hrs	6135	4859	1276	26.27
	Max Import (MW) on 22-04-18 at 22.00Hrs	2592	3137	-545	-17.38
	Max Net Export(+)/Import (-) (MW) on 00-01-00 at 00.00Hrs	5971	4199	1772	42.19
15)	Maximum voltage recorded	430	JEYPORE	400 kv	s/s
16)	Minimum voltage recorded	372	JEYPORE	400 kv	s/s

\$ Excludes 1323 MW contribution from HEPs of Bhutan

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

POWER SUPPLY POSITION FOR THE MONTH OF APR-2018

A) Net Average Energy Per Day

System	Demand Met (MU/Day)	Requirement (MU/Day)	Shortage (MU/Day)	% Shortage
BSEB	82.06	82.43	0.37	0.44
JSEB	22.65	23.63	0.98	4.16
DVC	61.37	61.95	0.58	0.93
ODISHA	79.07	79.17	0.11	0.14
WBSEDCL	109.24	110.53	1.30	1.17
CESC	31.83	31.88	0.04	0.14
DPL	5.88	5.89	0.01	0.14
SIKKIM	1.50	1.50	0.00	0.14
REGION	393.59	396.98	3.39	0.85

B) Peak Demand in MW:

System	Demand Met (MW)	Requirement (MW)	Shortage (MW)	% Shortage
BSEB	4463	4482	19	0.42
JSEB	1222	1226	4	0.30
DVC	2877	2925	48	1.64
ODISHA	4358	4362	4	0.09
WBSEDCL	6546	6566	20	0.30
CESC	1917	1920	3	0.1
DPL	264	264	0	0.02
SIKKIM	90	90	0	0.00
REGION	21058	21128	70	0

➤ **DIVERSITY FACTOR 1.03**

➤ **Regional Peak Demand Met on 19-4-2018 at 21.00 hrs. at 49.98 Hz.**

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

A) Net Average Energy

Month	2017-18					2018-19				
	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	394.05	397.91	3.86	0.97	49.98	393.59	396.98	3.39	0.85	49.96
MAY	389.99	394.80	4.81	1.22	49.98	-	-	-	-	-
JUNE	398.64	401.43	2.79	0.70	49.99	-	-	-	-	-
JULY	381.05	383.05	2.00	0.52	49.98	-	-	-	-	-
AUGUST	394.80	396.81	2.01	0.51	49.98	-	-	-	-	-
SEPTEMBER	418.67	420.99	2.32	0.55	49.97	-	-	-	-	-
OCTOBER	390.86	393.65	2.79	0.71	49.96	-	-	-	-	-
NOVEMBER	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
DECEMBER	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
JANUARY	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
FEBRUARY	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
MARCH	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-

B) Peak in MW:

Month	2017-18					2018-19				
	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.	Demand Met	Requirement	Shortage	Shortage	Avg. Freq.
	(MW)	(MW)	(MW)	(%)	(HZ)	(MW)	(MW)	(MW)	(%)	(HZ)
APRIL	19164	19387	224	1.15	49.98	21058	21128	70	0.33	49.96
MAY	19509	19664	155	0.79	49.98	-	-	-	-	-
JUNE	18994	19047	53	0.28	49.99	-	-	-	-	-
JULY	19110	19200	91	0.47	49.98	-	-	-	-	-
AUGUST	19221	19514	293	1.50	49.98	-	-	-	-	-
SEPTEMBER	20283	20670	387	1.87	49.97	-	-	-	-	-
OCTOBER	19882	19966	84	0.42	49.96	-	-	-	-	-
NOVEMBER	0	0	0	0.00	0.00	-	-	-	-	-
DECEMBER	0	0	0	0.00	0.00	-	-	-	-	-
JANUARY	0	0	0	0.00	0.00	-	-	-	-	-
FEBRUARY	0	0	0	0.00	0.00	-	-	-	-	-
MARCH	0	0	0	0.00	0.00	-	-	-	-	-

PERFORMANCE OF GENERATING STATIONS IN THE EASTERN REGION DURING THE MONTH OF APR-2018

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY (in MW)	EFFECTIVE CAPACITY (in MW)	Gross	Net	Cummulative Gross	Cummulative Net
					Energy Generation in MU	Energy Generation in MU	Energy Generation upto Current Month (2018-19) in MU	Energy Generation upto Current Month (2018-19) in MU
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	30.34	26.70	30.34	26.70
		Muzaffarpur Stg-I	220.00	220.00	30.06	26.02	30.06	26.02
		Thermal Total	440.00	430.00	60.40	52.72	60.40	52.72
	RES		327.40	327.40	19.18	19.18	19.18	19.18
		Total BIHAR	767.40	757.40	79.58	71.90	79.58	71.90
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	172.27	147.98	172.27	147.98
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	2.35	2.35	2.35	2.35
		RES	29.72	29.72	0.00	0.00	0.00	0.00
		Total	159.72	159.72	2.35	2.35	2.35	2.35
DVC	Thermal	Bokaro-B(3)	210.00	210.00	60.00	52.64	60.00	52.64
		Chandrapura (3)	140.00	130.00	0.00	0.00	0.00	0.00
		Chandrapura(U7 # 8)	500.00	500.00	206.93	186.65	206.93	186.65
		Durgapur(4)	210.00	210.00	103.29	90.75	103.29	90.75
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	653.47	586.57	653.47	586.57
		Mezia(U # 7,8)	1000.00	1000.00	620.07	589.84	620.07	589.84
		Bokaro-A(1,2)	500.00	500.00	353.10	337.61	353.10	337.61
		Durgapur STPS (U#1,2)	1000.00	1000.00	602.24	573.43	602.24	573.43
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	353.58	330.74	353.58	330.74
		Koderma STPS (U#1,2)	1000.00	1000.00	702.51	671.12	702.51	671.12
		Total Thermal	7100.00	7090.00	3655.18	3419.35	3655.18	3419.35
	Hydro	Maithon (U#1,2,3)	63.20	63.20	16.98	16.94	16.98	16.94
		Panchet (U#1,2)	80.00	80.00	1.37	1.31	1.37	1.31
		Tilaya (U#1,2)	4.00	4.00	0.00	0.00	0.00	0.00
Hydro Total		147.20	147.20	18.35	18.24	18.35	18.24	
	Total DVC	7247.20	7237.20	3673.53	3437.59	3673.53	3437.59	
WEST BENGAL								
WBPDCL	Thermal	Bandel TPS	540.00	450.00	147.35	131.69	147.35	131.69
		Santalidih TPS(U#5&6)	500.00	500.00	319.34	293.26	319.34	293.26
		Kolaghat TPS	1260.00	1260.00	456.18	404.73	456.18	404.73
		Bakreswar TPP	1050.00	1050.00	675.47	613.84	675.47	613.84
		Sagardighi TPP	1600.00	1600.00	506.86	452.89	506.86	452.89
		Thermal Total	4950.00	4860.00	2105.19	1896.41	2105.19	1896.41
WBSedCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	13.30	13.30	13.30	13.30
		Ramam (4x12.73)	51.00	51.00	11.32	11.32	11.32	11.32
		Teesta C.F. (3x3x7.3)	67.30	67.30	10.71	10.71	10.71	10.71
		Purulia PSS (4x225)	900.00	900.00	60.76	60.76	60.76	60.76
		Total Hydro	1053.30	1053.30	96.10	96.10	96.10	96.10
		RES	282.32	282.32	0.00	0.00	0.00	0.00
DPL	Thermal	DPSP (110+300+250 *)	660.00	660.00	313.00	281.84	313.00	281.84
		RES	0.20	0.20	0.60	0.60	0.60	0.60
		> Chandrapura #1 is retired on 17.01.17						
		> Patratu # 1,2,3,5,8 are retired on 21.12.16						

ORGANISATION	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 (2017-18) in MU	Cummulative Net Energy Generation upto Current Month (2017-18) 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	39.51	35.83	39.51	35.83
		Budge-Budge (3x250)	750.00	750.00	526.22	485.94	526.22	485.94
		Total CESC	1125.00	1125.00	565.74	521.77	565.74	521.77
HEL	Thermal	HEL	600.00	600.00	406.25	375.57	406.25	375.57
		Total West Bengal	8670.62	8580.62	3486.27	3171.69	3486.27	3171.69
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	174.77	157.03	174.77	157.03
		Talcher-II	220.00	220.00	152.87	137.35	152.87	137.35
		Total Thermal	470.00	460.00	327.64	294.38	327.64	294.38
OPGC	Thermal	IB TPS	420.00	420.00	260.31	231.96	260.31	231.96
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	24.28	24.06	24.28	24.06
		Hirakud-II (Chiplima)	72.00	72.00	21.15	21.11	21.15	21.11
		Balimela (6x60+2x75)	510.00	510.00	132.60	132.18	132.60	132.18
		Rengali (5x50)	250.00	250.00	46.66	46.56	46.66	46.56
		Upper Kolab (4x80)	320.00	320.00	54.09	53.96	54.09	53.96
		Indravati HPS (4x150)	600.00	600.00	131.04	128.59	131.04	128.59
		Mckd.(Odisha drawal)	57.38	57.38	18.61	18.61	18.61	18.61
		Total Hydro	2084.88	2084.88	428.43	425.06	428.43	425.06
		RES	184.30	184.30	13.10	13.10	13.10	13.10
		Total Odisha	3159.18	3149.18	1029.47	992.84	1029.47	992.84
(**) SIKKIM	Hydro	RES	52.11	52.11	3.00	3.00	3.00	3.00
		MTPS Stg-II	390	390	196.28	174.97	196.28	174.97
		FSTPP# I&II (3x200+2x500)	1600.00	1600.00	571.69	520.97	571.69	520.97
		FSTPP (U# 6)	500.00	500.00	308.78	286.86	308.78	286.86
		KhSTPP (4x210+3x500)	2340.00	2340.00	1441.07	1342.03	1441.07	1342.03
		TSTPP (2x500)	1000.00	1000.00	665.89	614.08	665.89	614.08
		BARH STPS II (2X660)	1320.00	1320.00	828.39	785.31	828.39	785.31
		Total NTPC	7150.00	7150.00	4012.10	3724.22	4012.10	3724.22
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	15.46	15.46	15.46	15.46
		Teesta (3x170)	510.00	510.00	148.70	148.70	148.70	148.70
		TLDP -(4x33+4x40)	292.00	292.00	50.36	50.36	50.36	50.36
		Total NHPC	862.00	862.00	214.52	214.52	214.52	214.52
IPP		MPL (U#1&2)	1050.00	1050.00	635.20	600.77	635.20	600.77
		APNRL (U#1,2)	540.00	540.00	183.65	167.23	183.65	167.23
		GMR (2x350)	700.00	700.00	429.57	404.87	429.57	404.87
		JITPL (2X600)	1200.00	1200.00	527.17	491.80	527.17	491.80
		BRBCL # 1,2	500.00	500.00	126.84	115.44	126.84	126.84
		CHUZACHEN** (2x55)	110.00	110.00	24.01	24.01	24.01	24.01
		JORETHANG (2x48)	96.00	96.00	13.06	13.06	13.06	13.06
		TEESTA URJA St III (6x200)	1200.00	1200.00	202.73	202.73	202.73	202.73
		Total Thermal (E.R)	27325.00	27205.00	13780.50	12726.31	13780.50	12726.31
		EASTERN REGIONAL		Total Hydro (E.R)	5876.38	5876.38	1045.89	1042.41
		Total RES	886.05	886.05	34.24	34.24	34.24	34.24
		TOTAL (E.R)	34087.43	33967.43	14860.63	13802.96	14860.63	13802.96
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	27.93	27.93	27.93	27.93
		Kurichu (4x15)	60.00	60.00	3.90	3.90	3.90	3.90
		TALA (6x170)	1020.00	1020.00	13.54	13.54	13.54	13.54
		DAGACHU (2x63)	126.00	126.00	5.75	5.75	5.75	5.75
		Grand Total	35653.43	35443.43	14911.75	13854.08	14911.75	13854.08

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF APR-2018

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 (2018-19) in MU	Cummulative PLF upto Current Month (%)
BIHAR	Thermal	Barauni (U# 6&7)	220.00	210.00	30.34	20.07	30.34	20.07
		Muzaffarpur Stg-I	220.00	220.00	30.06	18.98	30.06	18.98
		Thermal Total	440.00	430.00	60.40	19.51	60.40	19.51
	RES			19.18		19.18		
	Total BIHAR		767.40	757.40	79.58		79.58	
JHARKHAND								
TVNL	Thermal	TVNL	420.00	420.00	172.27	56.97	172.27	56.97
JSEB	Hydro	Subarnrekha (U#1,2)	130.00	130.00	2.35		2.35	
	RES		29.72	29.72	0.00		0.00	
	Total		159.72	159.72	2.35		2.35	
DVC	Thermal	Bokaro-B(3)	210.00	210.00	60.00	39.68	60.00	39.68
		Chandrapura (3)	140.00	130.00	0.00	0.00	0.00	0.00
		Chandrapura(U7 # 8)	500.00	500.00	206.93	57.48	206.93	57.48
		Durgapur(4)	210.00	210.00	103.29	68.31	103.29	68.31
		Mezia(1,2,3,4,5,6)	1340.00	1340.00	653.47	67.73	653.47	67.73
		Mezia(U # 7,8)	1000.00	1000.00	620.07	86.12	620.07	86.12
		Bokaro-A(1,2)	500.00	500.00	353.10	98.08	353.10	98.08
		Durgapur STPS (U#1,2)	1000.00	1000.00	602.24	83.64	602.24	83.64
		Raghunathpur TPS (U#1,2)	1200.00	1200.00	353.58	40.92	353.58	40.92
		Koderma STPS (U#1,2)	1000.00	1000.00	702.51	97.57	702.51	97.57
	Total Thermal		7100.00	7090.00	3655.18	71.60	3655.18	71.60
	Hydro	Maithon (U#1,2,3)	63.20	63.20	16.98		16.98	
		Panchet (U#1,2)	80.00	80.00	1.37		1.37	
		Tilaya (U#1,2)	4.00	4.00	0.00		0.00	
Hydro Total			147.20	147.20	18.35		18.35	
Total DVC		7247.20	7237.20	3673.53		3673.53		
WEST BENGAL								
WBPDCCL	Thermal	Bandel TPS	540.00	450.00	147.35	45.48	147.35	45.48
		Santalidih TPS(U#5&6)	500.00	500.00	319.34	88.71	319.34	88.71
		Kolaghat TPS	1260.00	1260.00	456.18	50.28	456.18	50.28
		Bakreswar TPP	1050.00	1050.00	675.47	89.35	675.47	89.35
		Sagardighi TPP	1600.00	1600.00	506.86	44.00	506.86	44.00
		Thermal Total		4950.00	4860.00	2105.19	60.16	2105.19
WBSEDCL	Hydro	Jaldhaka (3x9+2x4)	35.00	35.00	13.30		13.30	
		Ramam (4x12.73)	51.00	51.00	11.32		11.32	
		Teesta C.F. (3x3x7.3)	67.30	67.30	10.71		10.71	
		Purulia PSS (4x225)	900.00	900.00	60.76		60.76	
		Total Hydro		1053.30	1053.30	96.10		96.10
	RES		282.32	282.32				
	TLDP -(4x33+4x40)	292.00	292.00	50.36		50.36		
DPL	Thermal	DPPS (110+300+250 *)	660.00	660.00	313.00	65.87	313.00	65.87

PLANT LOAD FACTOR (PLF) OF THERMAL POWER STATIONS IN EASTERN REGION DURING THE MONTH OF APR-2018

ORGANI- SATION	TYPE	POWER STATION	INSTALLED CAPACITY	EFFECTIVE CAPACITY	Gross	PLF	Cummulative Gross	Cummulative PLF
					Energy Generation in MU	of Current Month (%)	Energy Generation upto Current Month (2017-18) in MU	upto Current Month (%)
			(in MW)	(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	39.51	40.65	39.51	40.65
		Budge-Budge (3x250)	750.00	750.00	526.22	97.45	526.22	97.45
		Total CESC	1125.00	1125.00	565.74	69.84	565.74	69.84
HEL	Thermal		600.00	600.00	406.25	94.04	406.25	94.04
		Total West Bengal	8670.62	8580.62	3486.27		3486.27	
ODISHA (NTPC)	Thermal	Talcher-I	250.00	240.00	174.77	101.14	174.77	101.14
		Talcher-II	220.00	220.00	152.87	96.51	152.87	96.51
		Total Thermal	470.00	460.00	327.64	98.92	327.64	98.92
OPGC	Thermal	IB TPS	420.00	420.00	260.31	86.08	260.31	86.08
OHPC	Hydro	Hirakud-I (Burla)	275.50	275.50	24.28		24.28	
		Hirakud-II (Chiplima)	72.00	72.00	21.15		21.15	
		Balimela (6x60+2x75)	510.00	510.00	132.60		132.60	
		Rengali (5x50)	250.00	250.00	46.66		46.66	
		Upper Kolab (4x80)	320.00	320.00	54.09		54.09	
		Indravati HPS (4x150)	600.00	600.00	131.04		131.04	
		Mckd.(Odisha drawal)	57.38	57.38	18.61		18.61	
		Total Hydro	2084.88	2084.88	428.43		428.43	
		RES	184.30	184.30	13.10		13.10	
		Total Odisha	3159.18	3149.18	1029.47		1029.47	
(**) SIKKIM	Hydro	RES	52.11	52.11	3.00		3.00	
NTPC		MTPS Stg-II	390	390	196.28	69.90	196.28	69.90
		FSTPP# I&II (3x200+2x500)	1600.00	1600.00	571.69	49.63	571.69	49.63
		FSTPP (U# 6)	500.00	500.00	308.78	85.77	308.78	85.77
		KhSTPP (4x210+3x500)	2340.00	2340.00	1441.07	85.53	1441.07	85.53
		TSTPP (2x500)	1000.00	1000.00	665.89	92.48	665.89	92.48
		BARH STPS II (2X660)	1320.00	1320.00	828.39	87.16	828.39	87.16
		Total NTPC	7150.00	7150.00	4012.10	77.94	4012.10	77.94
NHPC	HYDRO	Rangit (3x20)	60.00	60.00	15.46		15.46	
		Teesta (3x170)	510.00	510.00	148.70		148.70	
		TLDP -(4x33+4x40)	292.00	292.00	50.36		50.36	
		Total NHPC	862.00	862.00	214.52		214.52	
IPP	Thermal	MPL (U#1&2)	1050.00	1050.00	635.20	84.02	635.20	84.02
		APNRL (U#1,2)	540.00	540.00	183.65	47.24	183.65	47.24
		GMR (2x350)	700.00	700.00	429.57	85.23	429.57	85.23
		JITPL (2X600)	1200.00	1200.00	527.17	61.02	527.17	61.02
		BRBCL # 1,2	500.00	500.00	126.84	35.23	126.84	35.23
		CHUZACHEN** (2x55)	110.00	110.00	24.01		24.01	
		JORETHANG (2x48)	96.00	96.00	13.06		13.06	
		TEESTA URJA St III (6x200)	1200.00	1200.00	202.73		202.73	
		Total Thermal (E.R)	27325.00	27205.00	13780.50	70.35	13780.50	70.35
		EASTERN REGIONAL		Total Hydro (E.R)	5876.38	5876.38	1045.89	
		Total RES	886.05	886.05	34.24		34.24	
		TOTAL (E.R)	34087.43	33967.43	14860.63		14860.63	
BHUTAN	Hydro	CHPC(4x90)	360.00	270.00	27.93		27.93	
		Kurichu (4x15)	60.00	60.00	3.90		3.90	
		TALA (6x170)	1020.00	1020.00	13.54		13.54	
		DAGACHU (2x63)	126.00	126.00	5.75		5.75	
		Grand Total	35653.43	35443.43	14911.75		14911.75	

➤ 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 APR-2018 (19-4-2018)

Date 19-Apr-18
Time 21.00 Hrs.
Frequency 49.98 Hz.

(All Fig. in MW)

System/State	Installed Capacity	Effective Capacity	Hydro	Thermal	Total
BSPHCL	767	757	0	75	75
JUSNL	580	580	113	259	372
DVC	7247	7237	0	4889	4888
ODISHA	3159	3149	984	587	1570
WBSEDCL	6286	6196	250	2667	2916
TLDP	292	292	156	0	156
HEL HALDIA	600	600	0	547	547
CESC	1125	1125	0	843	843
DPL	660	660	0	408	408
SIKKIM	52	52	0	0	0
NTPC	7150	7150	0	5965	5965
NHPC	570	570	571	0	571
CHUKHA	360	270	34	0	34
KURICHU	60	60	2	0	2
TALA	1020	1020	17	0	17
MPL	1050	1050	0	979	979
SEL	0	0	0	0	0
APNRL	540	540	0	247	247
Kamalganga (GMR)	700	700	0	648	648
JITPL	1200	1200	0	748	748
BRBCL	500	500	0	152	0
Chuzachen	110	110	61	0	61
Jorethang	96	96	35	0	35
TEESTA URJA St III	1200	1200	777	0	777
Tashilding	97	97	43	0	43
DICKCHU	96	96	60	0	60
<u>Daghachu</u>	126	126	0	0	0
<u>Solar</u>	10	10	0	0	0
<u>Diseal</u>	0	0	0	0	0
<u>Total</u>	35653	35443	3103	19014	22117
Import From Captive:					1111
Export To:					
NER					472
SR					1664
WR					-1753
NR					1664.43
Bangladesh					1.85
Nepal					120.75
Total					2170
➤ I Net Peak Demand Met (MW) :					21058

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

Hourly Load Generation Data OF ER On Regional Peak Day During The Month of APR-2018 (19-4-2018)

(All Figures in MW)

Generation			Import	Net	Net	Demand	Freq.	Load		
Hrs.	Hydro	Thermal	Total	from Captive	Import From CHPS, KHPS & TALA	Export to other region	Met	Correction	Shed	Requirement
1	1519	23158	24677	1153	157	4442	18354	40	397	18791
2	1471	22926	24397	1159	136	4260	18234	30	260	18524
3	1445	22619	24064	1158	142	4057	17952	36	259	18247
4	1517	22153	23670	1067	136	3764	17478	72	260	17809
5	1362	22195	23557	1096	127	3869	17537	51	261	17849
6	1115	21699	22814	1144	91	4325	16864	32	265	17161
7	928	21385	22312	1183	67	5410	15943	14	262	16219
8	776	21374	22149	1184	77	4918	15687	15	261	15963
9	649	21451	22100	1187	77	4061	16064	21	179	16264
10	775	22059	22834	1076	78	4163	16337	26	103	16466
11	830	22485	23315	1071	84	4062	16639	26	92	16758
12	863	22655	23519	1013	80	3791	16786	13	89	16888
13	934	22750	23684	1021	95	3494	16965	0	9	16974
14	716	22675	23391	901	104	3497	16606	4	25	16635
15	1110	22730	23840	1019	91	3596	16851	75	9	16935
16	1316	23367	24683	1027	95	3921	17109	49	13	17171
17	877	23164	24041	1036	98	4380	16636	20	13	16670
18	1060	23262	24322	1031	49	4125	16995	15	13	17023
19	2032	24155	26186	1059	24	2498	19674	-7	6	19680
20	2698	24592	27290	1093	46	2680	21005	40	10	21055
21	2169	24498	26667	1111	53	2170	21058	13	57	21128
22	2162	24333	26495	1065	66	2438	20724	18	70	20812
23	2347	24185	26532	1042	87	2887	20260	57	114	20431
24	2556	24228	26785	1027	85	3115	20280	34	107	20421

Hourly Load Generation Data of ER On Regional Lean Day During The Month of APR-2018 (30-4-2018)

(All Figures in MW)

Generation			Import	Net	Net	Demand	Freq.	Load		
Hrs.	Hydro	Thermal	Total	from Captive	Import From CHPS, KHPS & TALA	Export to other region	Met	Correction	Shed	Requirement
1	1510	16147	17657	847	115	3339	17247	-8	21	17260
2	1165	15994	17159	887	119	4400	16571	10	27	16609
3	919	15728	16648	931	113	3913	15915	-10	32	15937
4	916	14906	15822	970	107	3698	14761	1	46	14808
5	754	14369	15123	909	109	3724	13701	-17	48	13732
6	729	14211	14940	921	78	4488	12819	-7	53	12866
7	740	14140	14880	1026	64	5226	12303	-26	62	12339
8	1027	13804	14830	992	84	4989	11895	-9	73	11958
9	984	13342	14325	863	101	4353	11983	-3	83	12063
10	1132	13491	14623	802	104	4116	12332	3	149	12484
11	963	13229	14192	692	91	4199	11310	2	170	11482
12	924	13358	14283	684	63	3949	11946	16	164	12126
13	1230	13675	14904	638	89	3821	12970	10	131	13112
14	1331	13464	14795	639	187	3506	13405	6	105	13516
15	1374	13847	15221	799	229	3547	13797	5	74	13876
16	1318	14371	15690	883	245	3843	14205	4	60	14269
17	748	14788	15535	887	243	4031	13924	-27	46	13943
18	529	14930	15459	922	211	3652	13630	-14	33	13648
19	1200	15179	16379	901	197	2437	15957	-6	26	15977
20	1724	15204	16928	913	202	3275	16873	16	99	16989
21	1529	14852	16381	915	209	3322	16659	7	145	16811
22	1139	14835	15974	881	227	3347	15959	8	142	16109
23	1089	14073	15162	873	169	3881	14495	18	142	14655
24	1262	14100	15361	916	161	3923	14268	6	136	14409

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

FOR THE MONTH OF APR-2018

POWER CUT / RESTRICTIONS

BSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 7.62 MU
JSEB	NO NOTIFIED CUTS/RESTRICTIONS However there was loadshedding of 28.56 MU
DVC	NO NOTIFIED CUTS/RESTRICTIONS. However there was loadshedding of 14.74 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 34.41 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-18

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-Apr	49.92	50.00	49.99	50.02	50.01	49.98	7.34	76.11	16.55	76.11	50.18	18:01	49.79	1:53	50.09	0:00	49.83	0:00
02-Apr	49.99	49.97	49.97	49.93	49.95	49.96	9.83	83.32	6.85	83.32	50.16	18:01	49.79	20:39	50.08	0:00	49.83	0:00
03-Apr	49.93	49.96	49.89	49.93	49.89	49.92	35.46	60.54	4.00	60.54	50.13	18:01	49.73	0:47	50.07	0:00	49.81	0:00
04-Apr	49.93	49.98	49.94	49.98	49.92	49.95	11.54	82.38	6.08	82.38	50.13	18:01	49.80	22:09	50.05	0:00	49.87	0:00
05-Apr	49.97	49.98	49.97	49.97	49.92	49.97	8.74	84.86	6.81	84.86	50.14	13:01	49.74	22:09	50.06	0:00	49.87	0:00
06-Apr	49.95	49.94	49.94	50.01	49.89	49.95	16.54	75.72	7.74	75.72	50.15	17:46	49.68	14:17	50.11	0:00	49.80	0:00
07-Apr	49.94	49.98	49.94	49.98	49.91	49.96	14.47	78.59	6.94	78.59	50.19	18:02	49.74	14:54	50.08	0:00	49.80	0:00
08-Apr	49.98	50.01	49.99	49.98	49.96	49.99	0.00	0.00	0.00	0.00	0.00	0:00	0.00	0:00	0.00	0:00	0.00	0:00
09-Apr	49.98	50.01	49.97	49.96	49.91	49.97	10.07	80.24	9.69	80.24	50.12	7:05	49.74	22:35	50.10	0:00	49.81	0:00
10-Apr	49.95	49.97	49.96	49.97	49.89	49.96	13.40	80.57	6.03	80.57	50.15	13:01	49.75	14:23	50.07	0:00	49.83	0:00
11-Apr	49.93	49.97	49.95	49.96	49.98	49.95	14.35	80.81	4.84	80.81	50.13	18:03	49.78	12:09	50.05	0:00	49.83	0:00
12-Apr	49.98	49.99	49.97	49.97	49.93	49.97	8.75	82.67	8.58	82.67	50.13	18:01	49.68	22:18	50.05	0:00	49.82	0:00
13-Apr	49.97	49.98	49.95	49.94	49.87	49.95	17.85	77.67	4.48	77.67	50.18	18:01	49.75	23:18	50.06	0:00	49.80	0:00
14-Apr	49.95	49.98	49.98	49.96	49.93	49.96	10.25	84.44	5.30	84.44	50.18	13:02	49.75	0:17	50.07	0:00	49.84	0:00
15-Apr	49.95	50.00	49.98	49.96	49.92	49.97	9.75	82.91	7.35	82.91	50.14	6:04	49.68	22:22	50.07	0:00	49.82	0:00
16-Apr	49.95	49.98	49.94	49.93	49.86	49.94	22.74	72.26	5.01	72.26	50.14	18:01	49.72	22:18	50.06	0:00	49.81	0:00
17-Apr	49.93	49.97	49.93	49.96	49.91	49.94	21.52	73.24	5.24	73.24	50.18	18:00	49.79	23:02	50.06	0:00	49.80	0:00
18-Apr	49.95	49.96	49.97	49.96	49.89	49.95	5.61	81.42	12.96	81.42	50.15	18:02	49.74	21:20	50.06	0:00	49.84	0:00
19-Apr	49.93	49.96	49.95	49.98	49.94	49.95	10.97	84.09	4.94	84.09	50.19	13:03	49.73	14:42	50.10	0:00	49.83	0:00
20-Apr	49.96	50.02	50.01	49.95	49.90	49.98	5.61	81.42	12.96	81.42	50.17	6:01	49.71	19:20	50.09	0:00	49.82	0:00
21-Apr	49.93	49.97	49.94	49.97	49.94	49.95	15.59	79.29	4.25	79.29	50.17	18:02	49.81	15:10	50.07	0:00	49.83	0:00
22-Apr	49.95	50.02	49.99	49.99	49.94	49.98	4.87	80.59	14.54	80.59	50.16	18:01	49.61	22:34	50.03	0:00	49.81	0:00
23-Apr	49.96	49.97	49.92	49.93	49.87	49.94	21.62	75.39	2.99	75.39	50.12	10:01	49.61	10:44	50.03	0:00	49.78	0:00
24-Apr	49.96	49.97	49.97	49.95	49.93	49.96	9.42	86.15	4.43	86.15	50.18	13:03	49.77	22:08	50.08	0:00	49.84	0:00
25-Apr	49.97	49.98	49.97	49.98	49.93	49.97	8.50	83.99	7.51	83.99	50.13	12:01	49.79	22:08	50.05	0:00	49.88	0:00
26-Apr	49.96	49.98	49.94	50.00	49.93	49.96	9.14	83.59	7.27	83.59	50.12	18:30	49.85	7:12	50.05	0:00	49.85	0:00
27-Apr	49.95	49.97	49.91	49.96	49.89	49.94	0.00	0.00	0.00	0.00	0.00	0:00	0.00	0:00	0.00	0:00	0.00	0:00
28-Apr	49.92	49.96	49.90	49.99	49.89	49.94	23.81	71.62	4.57	71.62	50.18	18:02	49.73	0:08	50.07	0:00	49.81	0:00
29-Apr	49.97	50.00	49.97	50.00	49.98	49.98	1.23	88.53	10.24	88.53	50.21	18:02	49.85	11:45	50.09	0:00	49.92	0:00
30-Apr	50.01	50.02	49.99	50.00	49.98	50.00	0.41	79.22	20.37	79.22	50.19	17:04	49.87	12:08	50.13	0:00	49.63	0:00
MAX	50.01	50.02	50.01	50.02	50.01	50.00	35.46	88.53	20.37	88.53	50.21		49.87		50.13		49.92	
MIN	49.92	49.94	49.89	49.93	49.86	49.92	0.41	60.54	2.99	60.54	50.12		49.61		50.03		49.63	
AVG	49.95	49.98	49.96	49.97	49.92	49.96	12.48	79.70	7.82	79.70	50.16		49.75		50.07		49.82	

SUMMARY:

Instantaneous Frequency :

Maximum Frequency : 50.21 Hz On 00/01/00 at 18:02 Hrs.

Minimum Frequency : 49.61 Hz On 00/01/00 at 10:44 Hrs.

15 Minutes Integrated Frequency :

Maximum Frequency : 50.13 Hz On 00/01/00 at 00:00 Hrs.

Minimum Frequency : 49.63 Hz On 00/01/00 at 00:00 Hrs

Avg. Frequency : **49.96 Hz.**

Frequency Distribution in % of Time			
Hz	<49.9	49.9-50.05	>50.05
% of Time	12.48	79.70	7.82

VOLTAGE ANALYSIS

MAXIMUM & MINIMUM VOLTAGES RECORDED AT IMPORTANT 400 kV S/S IN THE MONTH OF APR-2018

(All figs. in kV)

PGCIL	BINAGURI		MAITHON		JEERAT		BIHARSHARIFF	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	428	397	425	405	428	383	425	398

PGCIL	MUZAFFARPUR		JAMSHEDPUR		ROURKELA		JEYPORE	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	421	386	426	406	411	402	430	372

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
APR-2018**

(All figs.in mtrs.)

Name of the Reservoirs	FRL	MDDL	As on last day of the		As on first day of this month & date	
			(30-04-18)	(30-04-17)		
Hirakud	192	180	186.28	186.51	187.92	01.04.18
Balimela	462	439	442.97	450.62	443.94	01.04.18
Rengali	123	109	117.88	120.02	119.66	01.04.18
Upperkolab	858	844	849.53	851.51	850.72	01.04.18
Indravati	642	625	631.22	632.45	632.61	01.04.18
Subernrekha	590	580	583.48	587.99	584.27	01.04.18

B.

CPP/IPP IMPORT by Eastern Region Constituents during APR-2018

(All figs. are in MU)

System	Tata Power	Crescent Power	JSPL, Angul	Sterlite	Jindal	NALCO	TISCO	Others	Total
West Bengal	43.65	25.79	0	0	0	0	0	567.95	637.39
ODISHA	0	0	42.25	50.32	8.08	17.68	0	424.61	542.94
DVC	0	0	0	0	0	0	7.28	0	7.28
TOTAL	43.65	25.79	42.25	50.32	8.08	17.68	7.28	992.56	1187.62

C.

Distribution of Schedule Supply among Key Customers by IPPs during APR-2018

(All figs. are in MU)

IPP	TPDDL	WBSEDCL/ WBPDCD	DVC *	Sale at IEX/NPCL	ODISHA	JSEB	CTU/Others	Total (Excl. Tr. Loss)
MPL	176.59	157.74	87.94	0.00	0	0	177.54	599.81
Sterlite	0	0	0	0	0.00	0	0.00	0.00
APNRL	0	32.52	0	13.42	0.00	68.96	52.47	167.36
GMR	0	0.00	0	0.00	0.00	0	0.00	0.00
Total	176.59	190.26	87.94	13.42	0.00	68.96	230.01	767.17

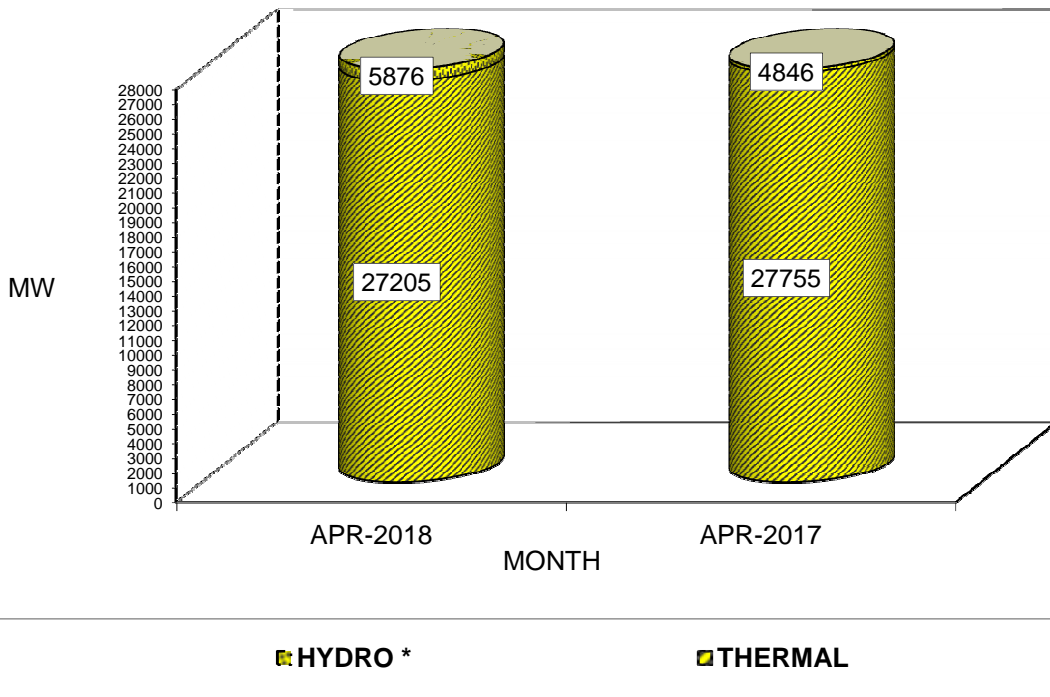
(*)--During this month, DVC has drawn 87.94 MU of MPL energy which is included in its exchange with Grid.

D.

Monthwise Gross Generation from Chuzachen HEP

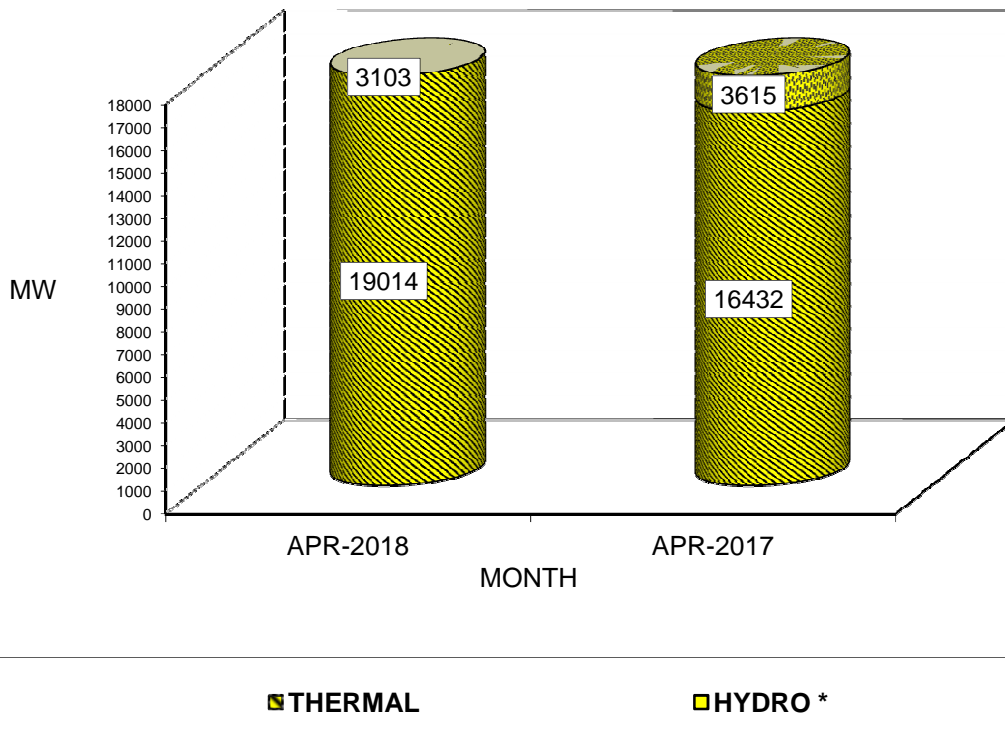
April'18	May'18	June'18	July'18	Aug'18	Sep'18	Cum. Total (2018-19)
24.01	0.00	0.00	0.00	0.00	0.00	
Oct'18	Nov'18	Dec'18	Jan'19	Feb'19	Mar'19	
0.00	0.00	0.00	0.00	0.00	0.00	

EFFECTIVE CAPACITY OF EASTERN REGIONAL GRID



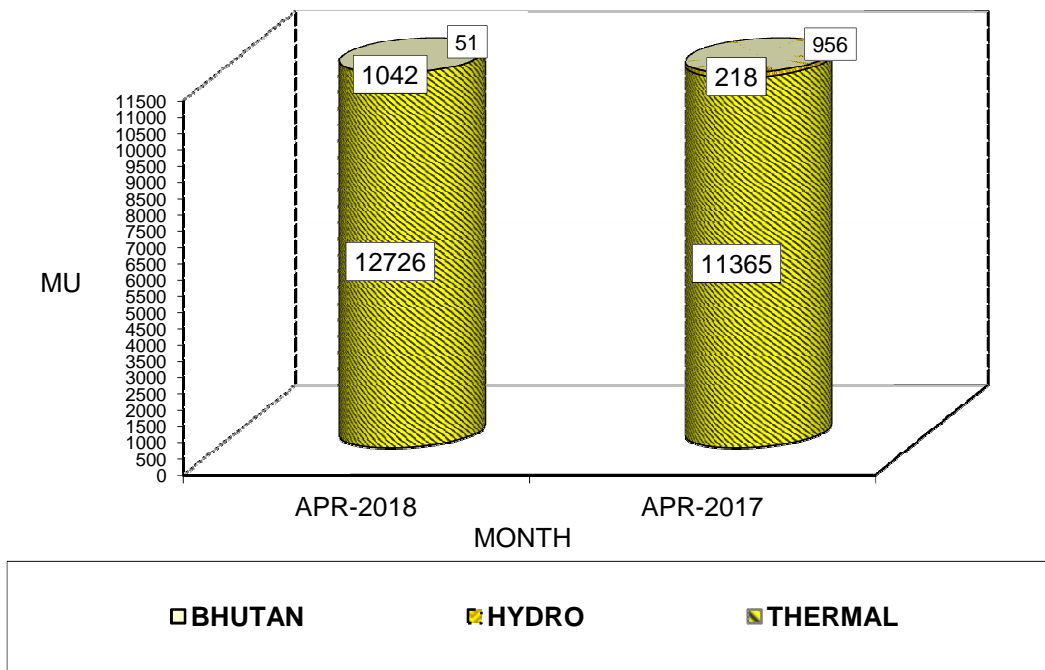
*Excludes 1350 MW contribution from HEPs of Bhutan

GENERATION CORRESPONDING TO PEAK DEMAND MET

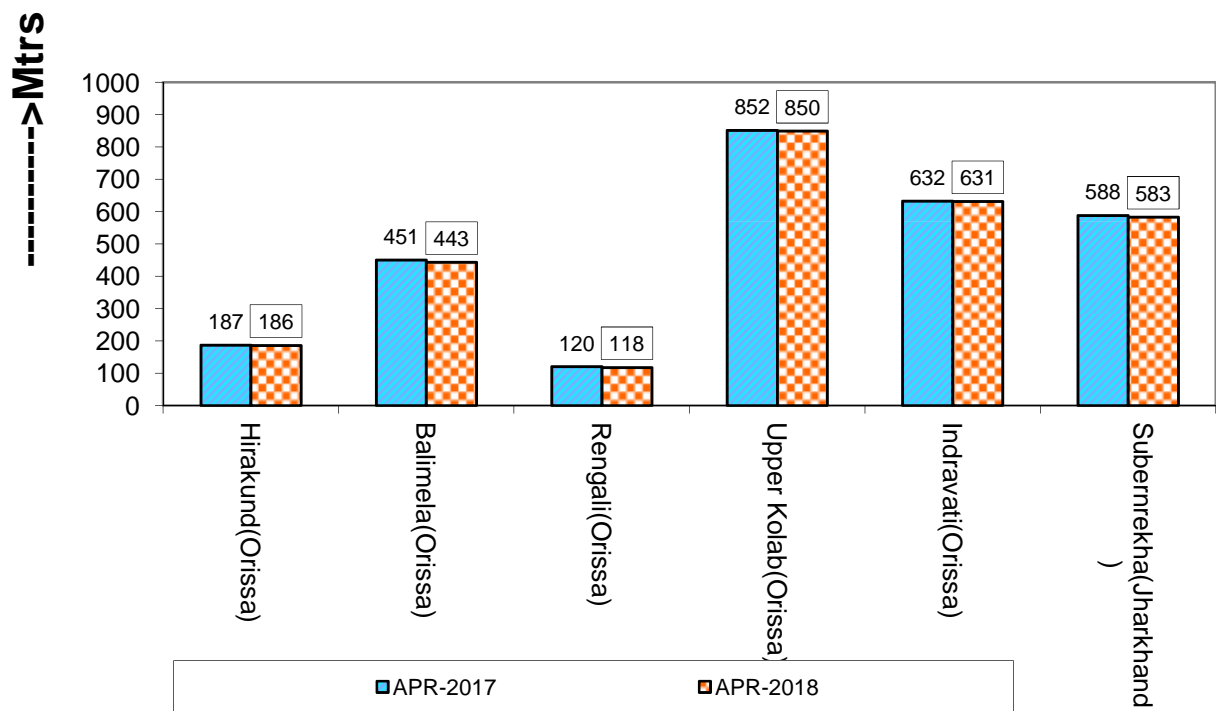


*Includes contribution from HEP of Bhutan

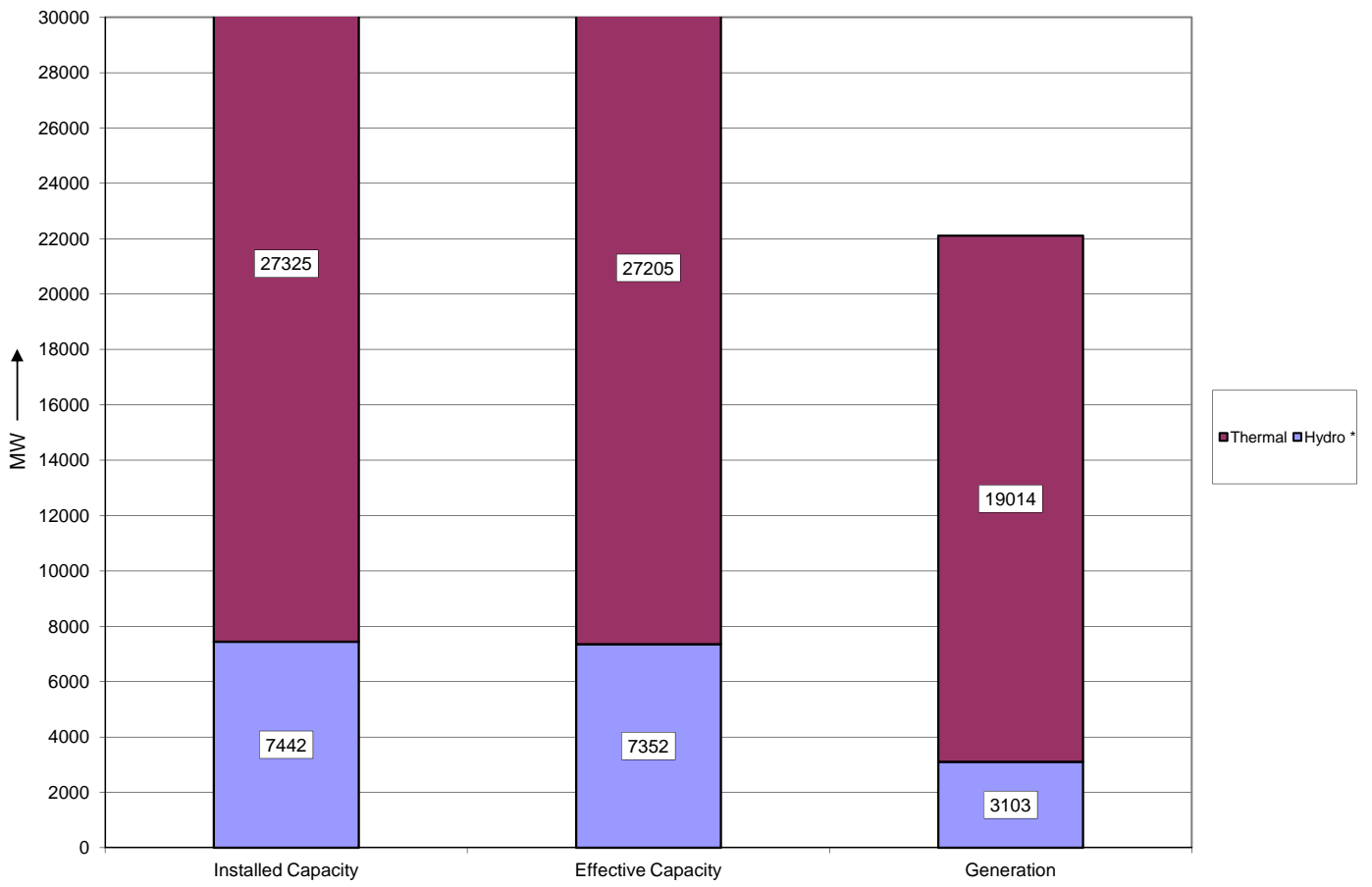
NET ENERGY GENERATION



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

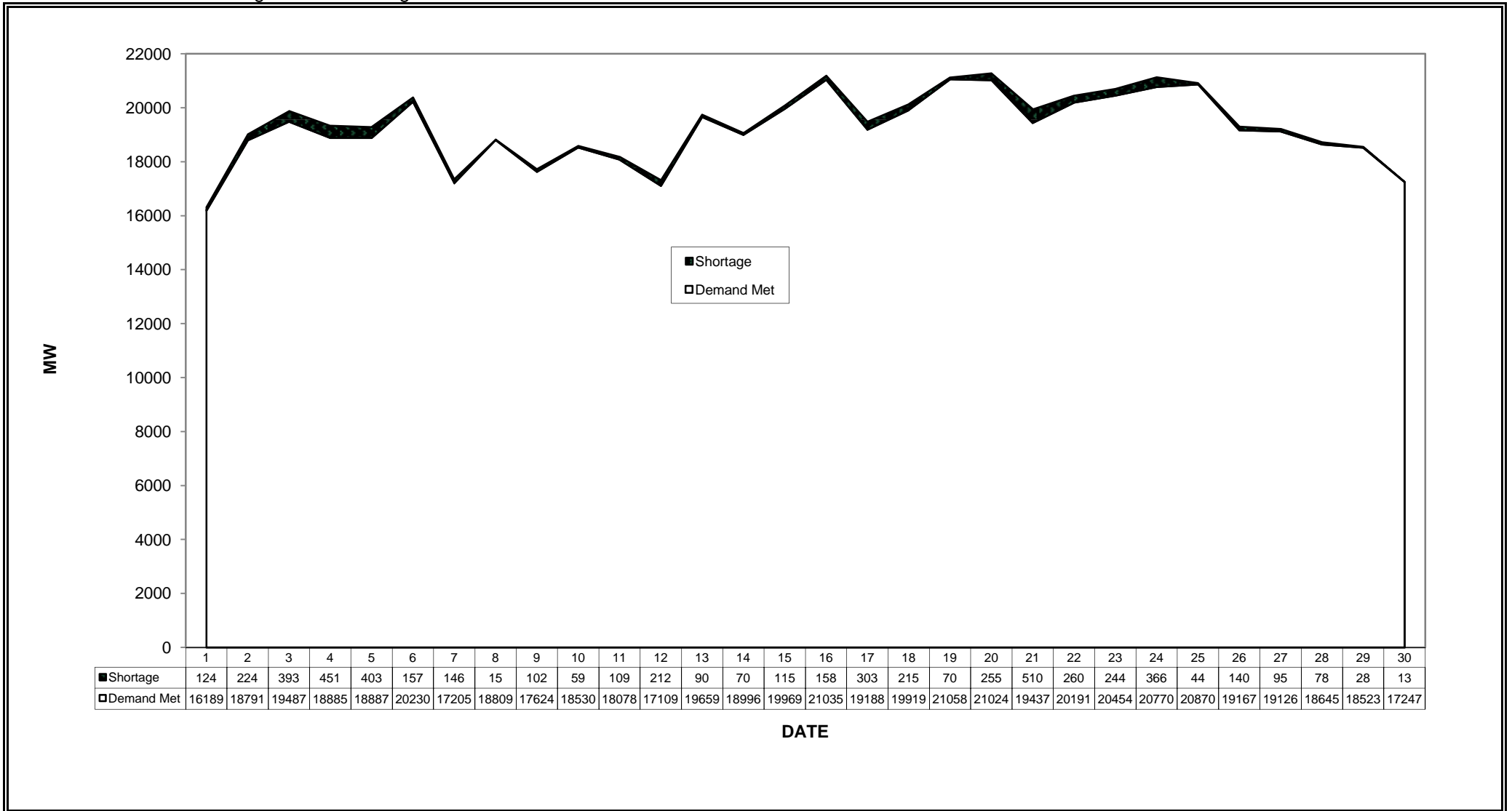


Capacity / Actual Generation Pattern of ER on Peak Day (19-4-2018) at 21.00 hrs.

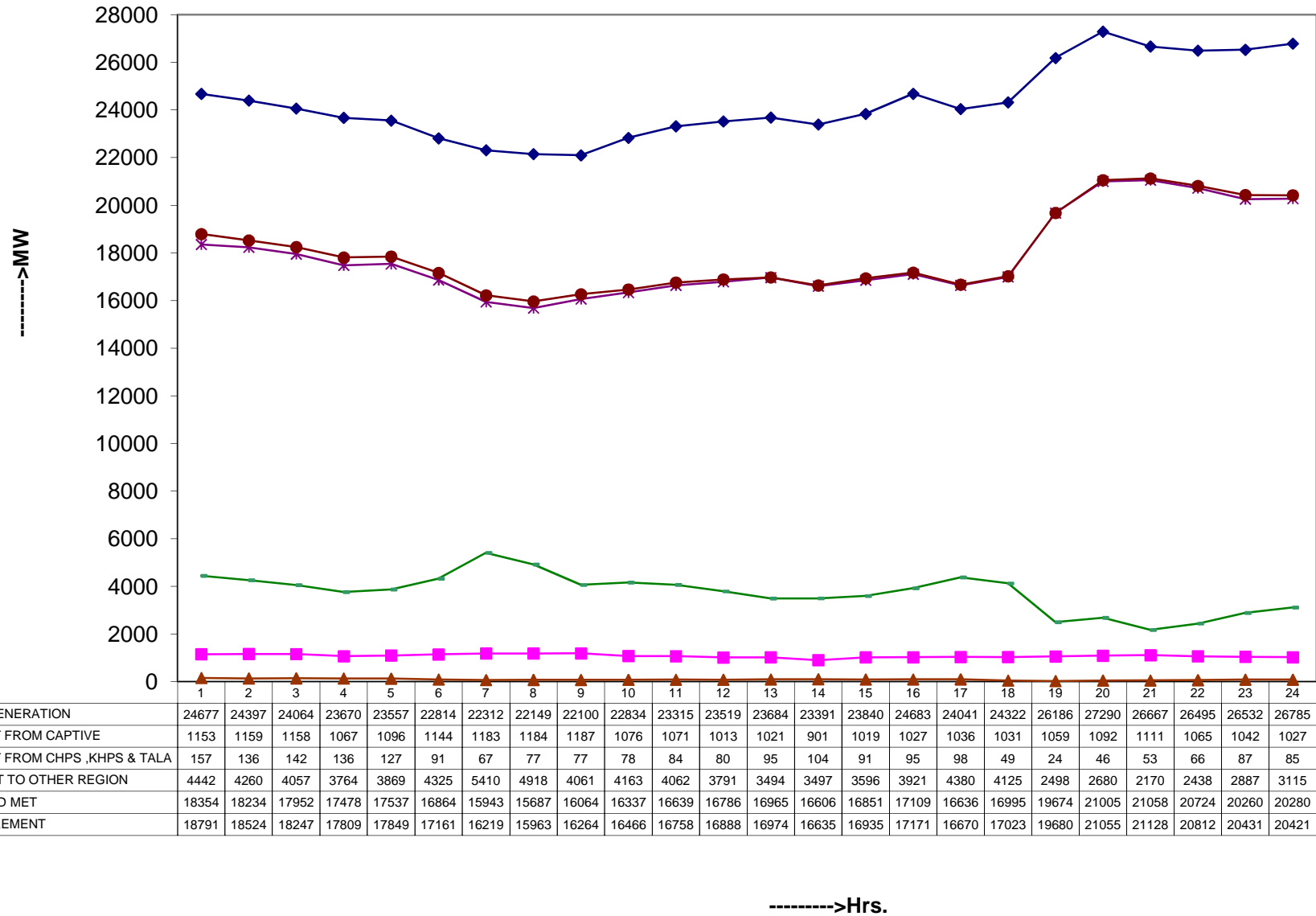


(*)--Includes contribution from HEP of Bhutan (Chukka, Kurichhu & Tala)

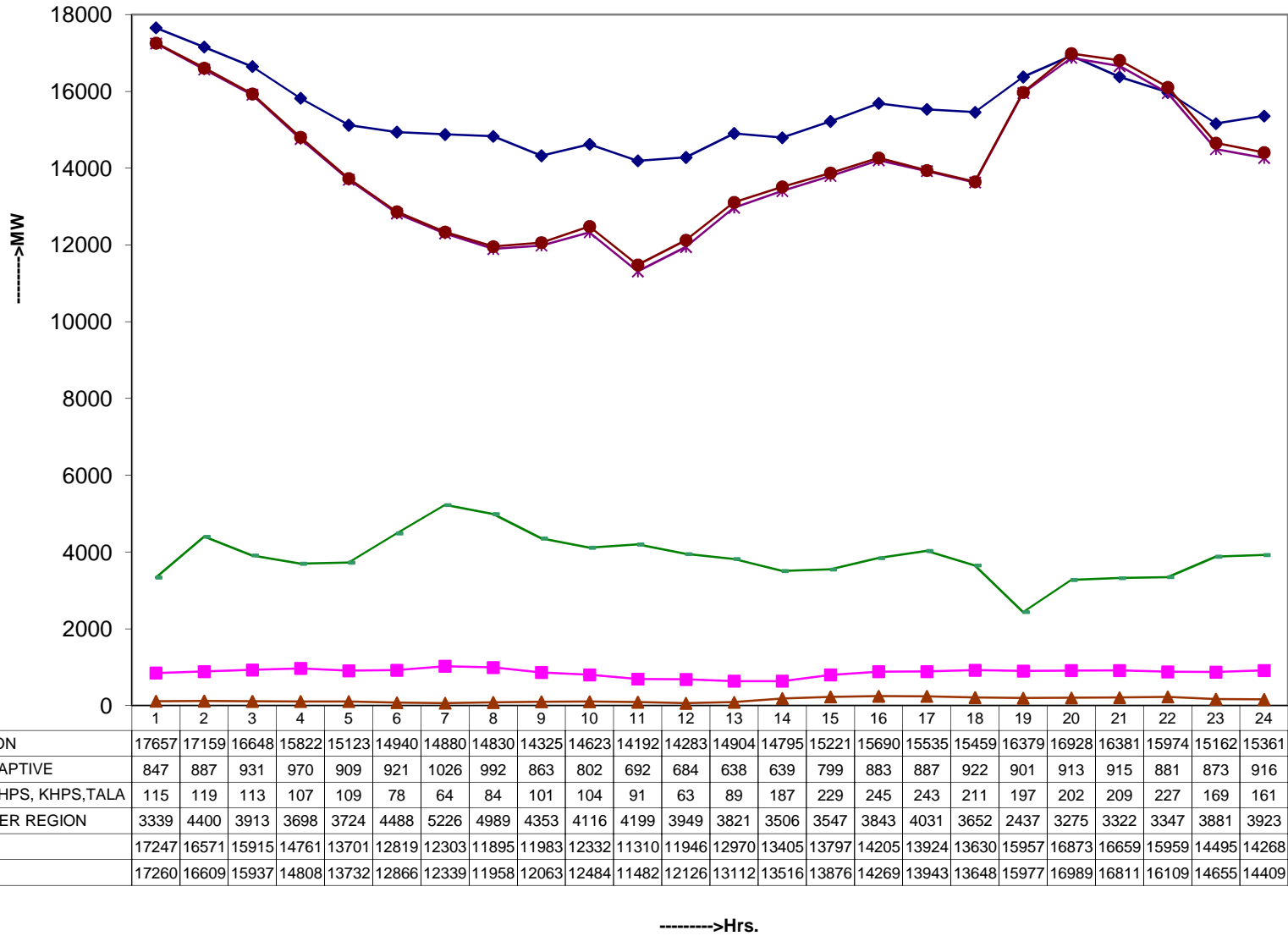
Peak Demand Met / Shortage of Eastern Region For The Month Of APR-2018



Hourly Load Generation Data OF ER On Regional Peak Day During The Month of APR-2018 (19-4-2018)

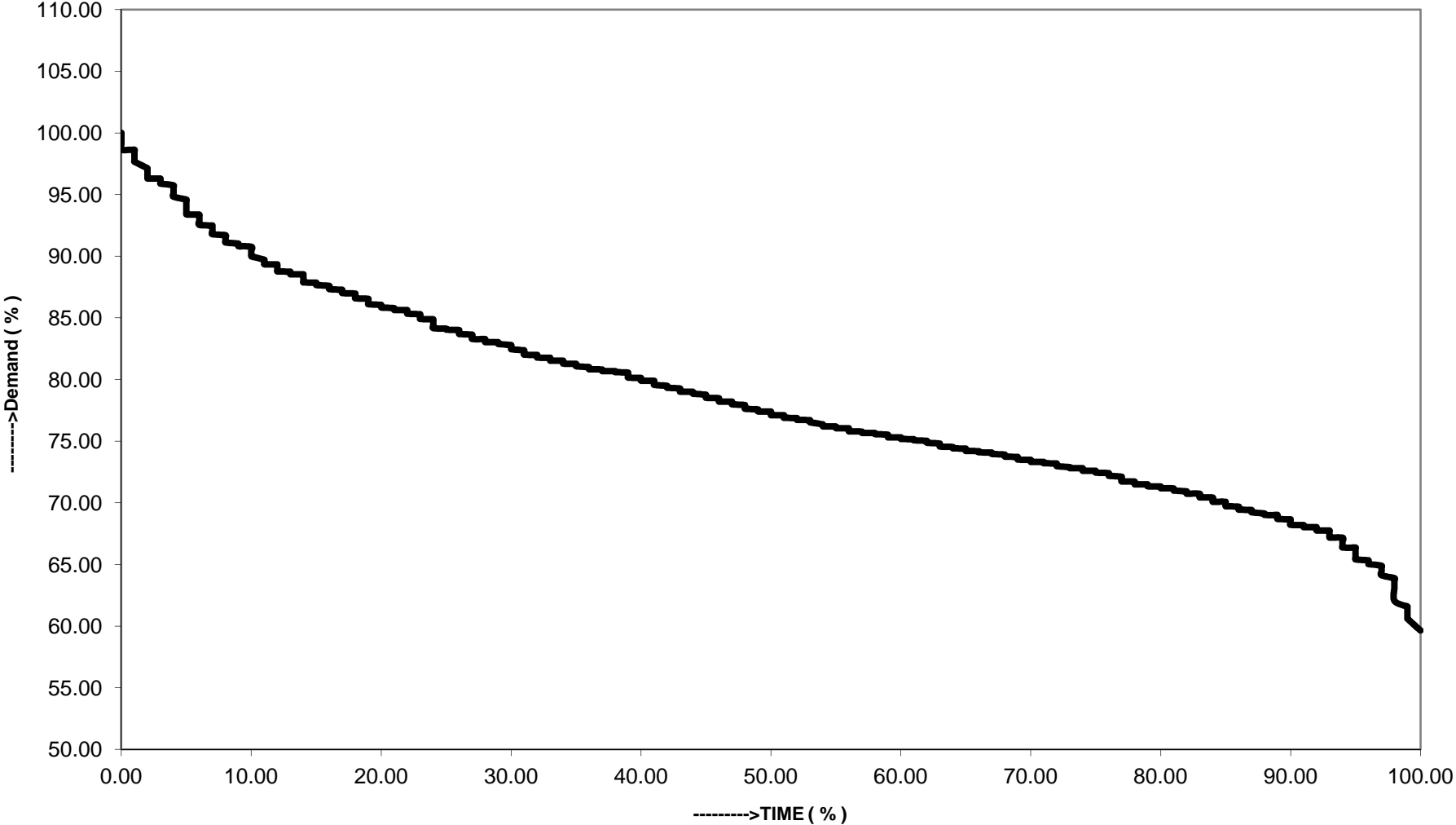


Hourly Load Generation Data of ER On Regional Lean Day During The Month of APR-2018 (30-4-2018)



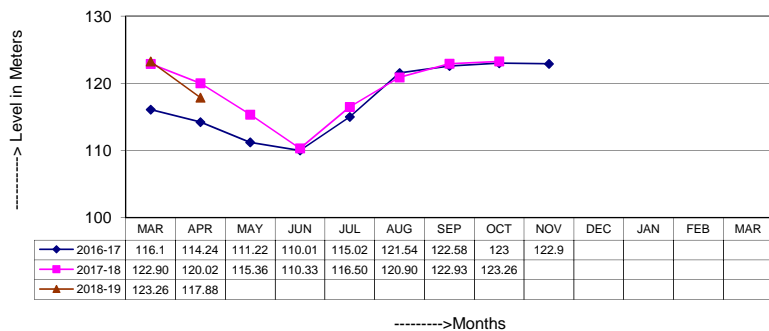
Monthly Load Duration Curve of Eastern Region for APR-2018

Maximum Demand met : 21058 MW
Minimum Demand met: 11310 MW

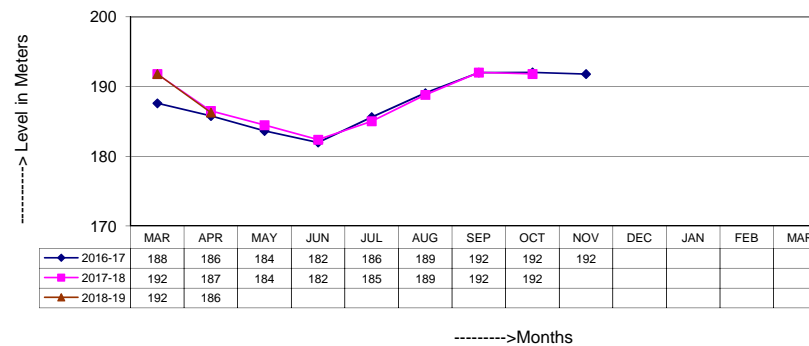


WATER LEVEL IN MAJOR RESERVOIRS ON LAST DATE OF MONTH

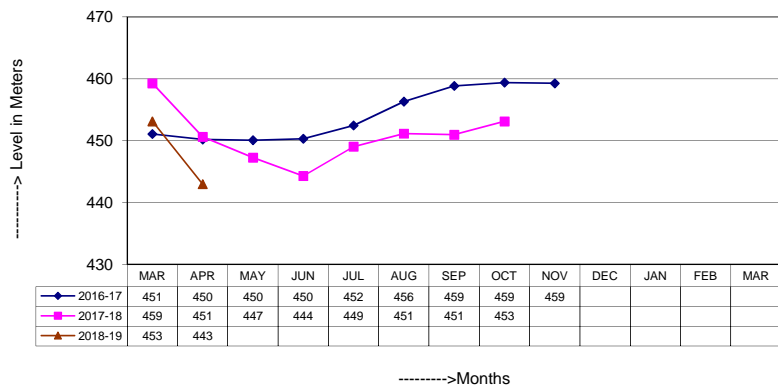
RENGALI RESERVOIR LEVEL



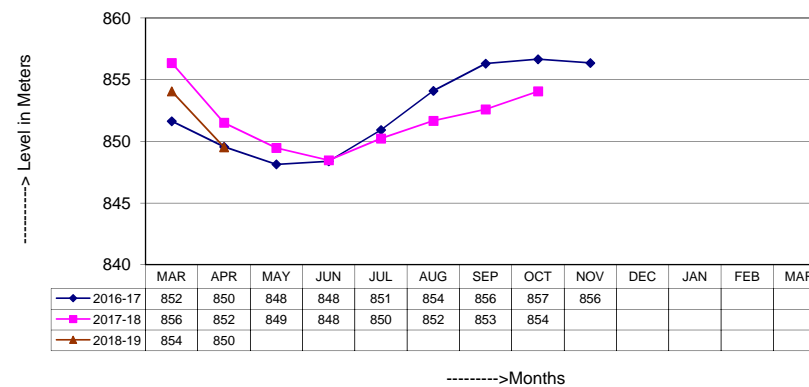
HIRAKUD RESERVOIR LEVEL



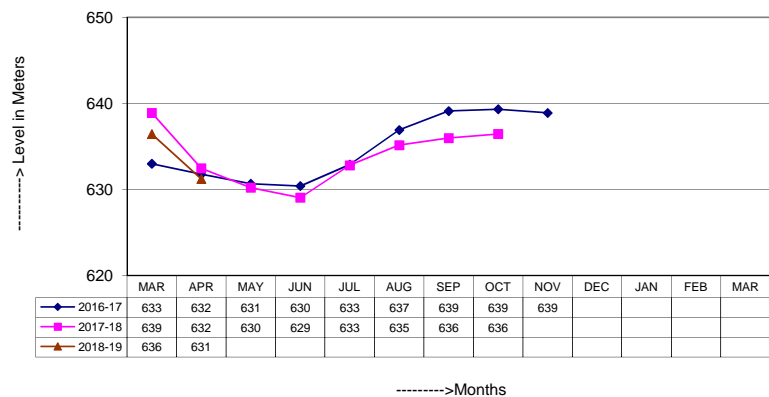
BALIMELA RESERVOIR LEVEL



UPPER KOLAB RESERVOIR LEVEL



INDRAVATI RESERVOIR LEVEL



SUBERNREKHA RESERVOIR LEVEL

