

भारत सरकार Government of India  
विद्युत मंत्रालय Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority

उत्तर पूर्वी क्षेत्रीय विद्युत समिति  
**North Eastern Regional Power Committee**

शिलोंग Shillong

**Progress Report**

*For the month of*

**November, 2010**

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## **NORTH EASTERN REGIONAL POWER COMMITTEE**

### **Brief highlights of North Eastern Regional Power System for the month of November, 2010**

# The maximum unrestricted demand during the month of **November, 2010** was **1797 MW**, which was **1913 MW** in the month of **October, 2010**. The peak demand met in NER during the period under review was **1559 MW**, which was **1560 MW** last month.

# The maximum, minimum & average system frequency were **50.72, 49.12 & 50.00 Hz** respectively. The maximum, minimum & average FVI were **0.520, 0.210 & 0.321** respectively. The average FVI was **more** than its previous month's figure. (refer Annex-II).

# Maximum export of power from NER to ER was **289 MW (on 21/11/10 at 24:00 hrs)** and that from ER to NER was **441 MW (16/11/10 at 18:00 hrs)**. Total net energy import during the month was **89.50 MU (from ER)**.

**SALIENT FEATURES OF  
NORTH EASTERN REGIONAL GRID FOR **NOVEMBER, 2010****

		<b>Nil</b>	
		<b>One</b>	
		<b>Nov-10</b>	<b>Nov-09</b>
1	New unit/ transmission lines/Transformers commissioned during this month		
2	Number of total grid disturbance during this month		
3	<b>Installed Capacity</b> of the Region ( in MW )(grid)	2054.12	2033.12
4	<b>Energy Generation in MU (Gross)::</b>		
	Thermal	371.855	366.890
	Hydel	314.630	289.150
	Diesel / Oil	0.000	0.000
	Total	686.485	656.040
5	<b>Demand in MW ::</b>		
	Registered Peak demand	1797.00	1624.00
	Peak demand met	1559.00	1410.00
	Shortage ( % age )	-13.24	-13.18
6	<b>Regional Energy(Gross) in MU ::</b>		
	Energy requirement	797.04	758.04
	Energy availability	750.44	694.12
	Surplus (+) / Deficit (-) ( % age )	-5.85	-8.43
7	<b>Inter Regional Energy Exchange in MU ::</b>		
	NER ----> ER	4.363	7.316
	ER ----> NER	93.863	71.357
	Net Import	89.500	64.04
8	<b>Frequency profile ::</b>		
	Average frequency ( Hz )	50.00	49.89
	Average Frequency Variation Index	0.321	0.845
9	Load Factor ( in % )	58.00	59.36

**ENERGY GENERATION IN THE REGION FOR THE MONTH OF Nov-10**

*All figures in MU*

Constituents	Hydro		Coal / Oil fired		Gas Based(OpenCycle)		Gas Based(Com Cycle)		Total(gen)	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
	A	B	C	D	E	F	G	H	I	J
<b>State Sector :</b>										
Assam	40.740	40.333	0.000	0.000	67.190	66.518	42.000	40.740	149.930	147.591
Meghalaya	36.550	36.185	0.000	0.000	0.000	0.000	0.000	0.000	36.550	36.185
Mizoram	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tripura	4.979	4.930	0.000	0.000	53.426	52.892	0.000	0.000	58.406	57.822
Nagaland	5.500	5.445	0.000	0.000	0.000	0.000	0.000	0.000	5.500	5.445
Total ( State Sector )									<b>250.386</b>	<b>247.042</b>
<b>Central Sector :</b>										
NEEPCO :										
Khd+Kop+Kop-II	86.480	85.615	0.000	0.000	0.000	0.000	0.000	0.000	86.480	85.615
K'guri	0	0	0.000	0.000	0	0	153.640	149.031	153.640	149.031
RCNagar	0	0	0	0	55.598	55.042	0	0	55.598	55.042
Doyang	6.650	6.584	0	0	0	0	0	0	6.650	6.584
Ranganadi	73.670	72.933	0	0	0	0	0	0	73.670	72.933
NHPC :										
Loktak	60.060	59.459	0.000	0.000	0.000	0.000	0.000	0.000	60.060	59.459
Total ( Central Sector )									436.098	428.664
<b>Total NER</b>	<b>314.629</b>	<b>311.483</b>	<b>0.000</b>	<b>0.000</b>	<b>176.214</b>	<b>174.452</b>	<b>195.640</b>	<b>189.771</b>	<b>686.484</b>	<b>675.706</b>

**REQUIREMENT Vs AVAILABILITY IN THE REGION**

STATES	ENERGY requirement (MU) at 50 Hz				POWER requirement (MW) at 50 Hz			
	<i>Availability &amp; L/S at prevailing freq.</i>				<i>Availability &amp; L/S at prevailing freq.</i>			
	Requirt.	Availy.	Shortfall	%Shortfall	Requirt.	Availy.**	Shortfall	%Shortfall
Ar.Pr.	45.53	38.05	7.48	16.43%	101	77	24	23.39%
Assam	431.34	418.64	12.70	2.94%	962	909	53	5.53%
Manipur	49.67	46.13	3.54	7.13%	110	102	8	7.48%
M'laya	133.66	120.96	12.70	9.50%	253	215	38	14.87%
Mizoram	30.21	25.82	4.39	14.53%	76	61	15	19.35%
Nagaland	45.44	41.38	4.06	8.93%	110	91	19	17.41%
Tripura	61.19	59.46	1.73	2.83%	185	185	0	0.12%
REGION	797.04	750.44	46.60	5.85%	1797	1559	238	13.27%

**ESTIMATION OF PEAK DEMAND (in MW)**

Constituents	Peak Demand Met	Date	Freq. (Hz)	Freq. Corr.**	L/S	Estimated Peak demand at 50 Hz
Arunachal Pradesh	77.00	09/11/2010	50.21	-0.49	24	100.51
Assam	909.00	05/11/2010	50.14	-3.82	57	962.18
Manipur	102.00	25/11/2010	49.92	0.24	8	110.24
Meghalaya	215.00	24/11/2010	50.07	-0.45	38	252.55
Mizoram	61.00	17/11/2010	50.20	-0.37	15	75.63
Nagaland	91.00	06/11/2010	50.30	-0.82	20	110.18
Tripura	185.00	01/11/2010	50.32	-1.78	2	185.22
REGION	1559.00	05/11/2010	50.14	-6.55	245	1797.45

\*\* Freq.Correction = Demand met x 0.03 x ( 50 - Av. Freq.)

**ESTIMATION OF ENERGY REQUIREMENT (in MU)**

Average Frequency **50.00** Hz

Constituents	Generation	Energy drawal from grid			Over(+) / Under(-) Drawal	Energy Availability*	Freq. Corr.**	L / S	Actual Requirement
		Entitlement frm ISGS of NER	Entitlement frm ISGS of ER	Drawal					
Ar.Pr.	0.000	33.106	3.052	38.053	1.895	38.053	0.000	7.48	45.533
Assam	147.591	207.711	87.528	271.053	-24.187	418.644	0.000	12.70	431.344
Manipur	0.000	47.563	0.000	46.126	-1.437	46.126	0.000	3.54	49.666
M'laya	36.185	54.542	21.718	84.772	8.512	120.957	0.000	12.70	133.657
Mizoram	0.000	23.065	0.000	25.816	2.751	25.816	0.000	4.39	30.206
Nagaland	5.445	26.008	10.087	35.939	-0.155	41.384	0.000	4.06	45.444
Tripura	57.822	38.277	0.000	1.636	-36.641	59.458	0.000	1.73	61.188
REGION	247.042	430.272	122.385	503.396	-49.261	750.438	0.000	46.60	797.038

\*Energy availability means energy consumed by constituents

\*\* Freq.Correction = Demand met x 0.03 x ( 50 - Av.Freq.)

**ENERGY GENERATED (MU) AND PEAK GENERATION (MW) FROM GENERATING STATIONS/UNITS:**

Sl. No.	Power Stations / Units	Installed Capacity(MW)	Peak Generation(MW)	Energy Generation (MU)	
				Nov-10	Nov-09
<b>STATE SECTOR : HYDRO</b>					
<b>ASSAM :: HYDRO</b>					
1	KARBI HEP U - 1	50.00	50.00	22.190	11.150
2	KARBI HEP U - 2	50.00	50.00	18.550	16.360
TOTAL		100.00		40.740	27.510
<b>MEGHALAYA :: HYDRO</b>					
1	STAGE - 1	36.00	27.00	4.310	8.100
2	STAGE - 2	18.00	12.00	12.480	3.660
3	STAGE - 3	60.00	30.20	17.530	11.830
4	STAGE - 4	60.00	55.40	1.490	13.340
5	UMTRU	11.20	3.50	0.740	3.770
TOTAL		185.20		36.550	40.700
<b>NAGALAND :: HYDRO</b>					
6	LIKIMRO - 1				
7	LIKIMRO - 2	24.00	15.00	5.500	9.500
8	LIKIMRO - 3				
TOTAL		24.00		5.500	9.500
<b>TRIPURA :: HYDRO</b>					
9	GUMTI - 1	5.00	Gumti Stn. Peak =8 MW	0.825	0.000
10	GUMTI - 2	5.00		1.806	2.819
11	GUMTI - 3	5.00		2.349	2.781
TOTAL		15.00		4.980	5.600
<b>TOTAL STATE (HYDRO) :</b>		324.20		87.770	83.310

**ENERGY GENERATED (MU) AND PEAK GENERATION (MW) FROM GENERATING STATIONS/UNITS:**

Sl. No.	Power Stations / Units	Installed Capacity(MW)	Peak Generation(MW)	Energy Generation (MU)	
				Nov-10	Nov-09
<b>STATE SECTOR : THERMAL/GAS</b>					
<b>MIZORAM :: Thermal</b>					
1	Bairabi	22.92	0.00	0.000	0.000
<b>TRIPURA :: THERMAL</b>					
1	BARAMURA - 1	5.00	Baramura Stn. Peak = 42 MW	0.000	0.000
2	BARAMURA - 2	5.00		0.000	0.000
3	BARAMURA - 3	6.50		0.000	0.000
4	BARAMURA - 4	21.00		13.095	14.700
5	BARAMURA - 5	21.00		0.000	0.000
6	ROKHIA - 1	8.00	Rokhia Stn. Peak = 58.3MW	0.000	0.000
7	ROKHIA - 2	8.00		0.000	0.000
8	ROKHIA - 3	8.00		4.649	4.910
9	ROKHIA - 4	8.00		6.228	1.980
10	ROKHIA - 5	8.00		0.000	0.000
11	ROKHIA - 6	8.00		0.000	0.000
12	ROKHIA - 7	21.00		14.696	15.140
13	ROKHIA - 8	21.00		14.759	15.390
	TOTAL	148.50		53.427	52.120
<b>ASSAM :: THERMAL</b>					
1	LTPS - 1	15.00	LTPS Stn. Peak = 105.1 MW	9.400	10.210
2	LTPS - 2	15.00		7.840	9.560
3	LTPS - 3	15.00		7.800	9.810
4	LTPS - 4	15.00		0.000	2.560
5	LTPS - 5	20.00		9.360	0.000
6	LTPS - 6	20.00		13.770	15.290
7	LTPS - 7	20.00		13.950	13.380
8	NTPS - 1	20.00	NTPS Stn. Peak = 81.5 MW	13.530	0.000
9	NTPS - 2	21.00		13.310	13.920
10	NTPS - 3	21.00		0.000	10.790
11	NTPS - 4	11.00		7.090	7.860
12	NTPS - 5	22.00		0.000	0.000
13	NTPS - 6	22.00		8.070	7.390
14	DLF	24.50			5.070
	TOTAL	261.50		109.190	107.150
TOTAL STATE THERMAL/GAS :		432.92		162.617	159.270
<b>TOTAL SC GEN(HY+TH/GAS)</b>		<b>757.12</b>		<b>250.387</b>	<b>242.580</b>

**ENERGY GENERATED (MU) AND PEAK GENERATION (MW) FROM GENERATING STATIONS/UNITS:**

Sl. No.	Power Stations / Units	Installed Capacity(MW)	Peak Generation(MW)	Energy Generation (MU)	
				Nov-10	Nov-09
<b>CENTRAL SECTOR : HYDRO</b>					
1	KHANDONG - 1	25.00	25.00	4.550	3.950
2	KHANDONG - 2	25.00	25.00	4.810	3.600
3	KOPILI Stg - II	25.00	25.00	4.970	4.260
4	KOPILI - 1	50.00	50.00	16.120	0.000
5	KOPILI - 2	50.00	50.00	0.150	22.730
6	KOPILI - 3	50.00	50.00	24.300	32.600
7	KOPILI - 4	50.00	50.00	31.580	28.080
8	DOYANG -1	25.00	Doyang Stn. Peak = 68.8 MW	1.310	4.930
9	DOYANG -2	25.00		2.430	2.490
10	DOYANG -3	25.00		2.910	4.620
11	LOKTAK - 1	35.00	Loktak Stn. Peak = 99 MW	15.200	17.880
12	LOKTAK - 2	35.00		22.770	6.500
13	LOKTAK - 3	35.00		22.090	23.990
14	RANGANADI - 1	135.00	Ranganadi Stn. Peak = 402 MW	15.850	15.550
15	RANGANADI - 2	135.00		28.510	16.430
16	RANGANADI - 3	135.00		29.310	18.230
<b>TOTAL HYDRO :</b>		<b>860.00</b>		<b>226.860</b>	<b>205.840</b>
<b>CENTRAL SECTOR : THERMAL/GAS</b>					
1	KATHALGURI - 1	33.50	Kathalguri Stn. Peak = 262 MW	21.030	18.570
2	KATHALGURI - 2	33.50		21.640	17.760
3	KATHALGURI - 3	33.50		20.020	20.550
4	KATHALGURI - 4	33.50		19.590	22.350
5	KATHALGURI - 5	33.50		16.050	14.860
6	KATHALGURI - 6	33.50		15.860	17.560
7	KATHALGURI - 7	30.00		15.490	13.700
8	KATHALGURI - 8	30.00		15.050	16.250
9	KATHALGURI - 9	30.00		8.910	11.370
10	R.C.NAGAR - 1	21.00	RC Nagar Stn. Peak = 86 MW	14.176	13.840
11	R.C.NAGAR - 2	21.00		13.950	13.260
12	R.C.NAGAR - 3	21.00		13.681	13.580
13	R.C.NAGAR - 4	21.00		13.791	13.970
<b>TOTAL THERMAL/GAS :</b>		<b>375.00</b>		<b>209.238</b>	<b>207.620</b>
<b>TOTAL CS ( HY + TH/GAS ) :</b>		<b>1235.000</b>		<b>436.098</b>	<b>413.460</b>
<b>TOTAL NER GEN(HY+TH/GAS) :</b>		<b>1992.120</b>		<b>686.485</b>	<b>656.040</b>

**Plant Load Factor (PLF) and Voltage Profile :**

Nov-10

**PLANT LOAD FACTOR OF THE THERMAL/ GAS STATIONS IN NER**

Sl. No.	Power Station	State/ Constituent	Installed Capacity (MW)	Generation (in MU)	Stationwise PLF (%)
1	LTPS*	AEGCL	120.00	62.120	71.90
2	NTPS*	AEGCL	117.00	42.000	49.86
3	Baramura	Tripura	58.50	13.095	31.09
4	Rokhia	Tripura	90.00	40.332	62.24
5	AGBPP	NEEPCO	291.00	153.640	73.33
6	AGTPP	NEEPCO	84.00	55.598	<b>91.93</b>
7	Bairabi	Mizoram	22.92	0.000	0.00

\*LTPS-- Lakwa Thermal Power Station, NTPS-- Namrup Thermal Power Station

**VOLTAGE PROFILE :****A. MAXIMUM AND MINIMUM VOLTAGE (kV) OF IMPORTANT SUB - STATIONS :**

Sl. No.	NAME OF S/S	MAXIMUM ( kV )	MINIMUM ( kV )
1	BALIPARA 400 kV	426	380
2	MISA 400 kV	424	382
3	MISA 220 kV	235	208
4	SALAKATI 220 kV	235	209
5	HAFLONG 132 kV	138	126
6	AIZAWL 132kV	137	120
7	KUMARGHAT 132kV	136	125

**Voltage Range in kV as percentage of time for the block**

SUB-STATION	kV < 360	360<kV<380	380<kV<420	kV>420
MISA	0.00	0.00	98.80	1.20
BALIPARA	0.00	16.14	83.74	0.12

1 **INTER - REGIONAL EXCHANGE :**

All Fig in MU

NER to ER	4.363
ER to NER	93.863
NET IMPORT	89.500

2 **Major Grid Disturbances during this month**

One grid disturbance of category GD-V on 15.11.2010 at 16:33 hrs.

3 **MEETING HELD BY NERPC DURING THIS MONTH**

1. 56th OCC Meeting was held on 09.11.10 at NERTS, conference hall, Shillong.

2. 14th CCM was held on 12.11.10 at Tawang, Ar. Pradesh

<b>PROGRESS OF GENERATION PROJECTS IN NER</b>				
Name of the Generation Scheme	No. of Units	Capacity (MW)	Commissioning Schedule	REMARKS
<b>[A] NEEPCO</b>				
1. Monarchak TGBPP		104	2013	Activities in progress
2. Tuirial HEP Mizoram	2	2 X 30	WORKS HELD-UP	Being reviewed by PIB
3. Kameng HEP A. Pradesh	4	4X150	2012-13	Activities in progress
4. Tuival H.E. Proj. Mizoram	3	3X70	2015	Status not available
5. Tipaimukh HEP		1500	2015	Activities in progress
6. Mawphu HEP	2	90	2014	UNDER CCEA
7. Pare HEP, Ar. Pradesh		110	2015	UNDER CCEA
<b>[B] NHPC</b>				
a). Loktak Downstream HEP	2	66	2014	Activities in progress
b) Subansiri Lower HEP		2000	2013	Activities in progress
c) Siang Middle HEP		2000	2016	Activities in progress
d) Subansiri Upper HEP		2000	DPR Under prep	
e) Subansiri Middle HEP		1000	DPR Under prep	
f) Dibang Multipurpose Project		3000	Under TEC	
<b>[C] NTPC</b>				
a). Bongaigaon TPS	3	3X250	2012	Activities in progress
<b>[D] JV PROJECT</b>				
a). Palatana CCPP	2	2X323.3	2012	Activities in progress
<b>[E] ASSAM</b>				
(a) Lakwa WHRP		37.2	2012	Activities in progress
(b) Namrup CCPP	2	2X40	2012	
<b>[F] MIZORAM</b>				
(a) Tuivai Hydel Project	2	51	2012	Activities in progress
(b) Bairabi Dam Project	2	2 X 40	2012	Activities in progress
<b>(G) MeSEB</b>				
(a) Myntdu - Leishka HEP	2	3x42	2011	Activities in progress
(b) New Umtru HEP	2	2X20	2013	Activities in progress
<b>(H) Tripura</b>				
(a) Baramura GT # U-V	1	21	2010	Commissioned on 03.08.10

<b>PROGRESS OF TRANSMISSION LINES IN NE REGION</b>									
	Name of the line	Length	Comm'n'g Sch		Total no.	Stubs com	Tower	Stringing	Remarks
		ckt kms	Ann.pl	Ant/revd	of locs .	pleted(nos)	Erected	complt-ckm	
<b>A : Lines under ASEB.</b>									
1	132 kV Nazira - Lakwa 2nd Ckt	21						Completed	Work in progress
2	132 kV, S/C Rangia - Sipajhar - Rowta- Depota	147							Work in progress
3	132 kV, S/C Sarusajai - Kahlipara	8							Work in progress
4	LILO of 132 kV Mariani - Dimapur S/C at Bokajan	6					completed		Rly Clearance awaited
5	132 kV Nazira- Garmur (Mariani) S/C	63							Tender is in progress
6	220 kV Kathalguri - Tinsukia 2nd Ckt	50	2006-07						Work in progress
<b>D : Lines under Meghalaya :</b>									
1	Myntdu Leshka-Khlieriat 132 KV D/C			2011					Work in progress
2	220 kV Misa-Byrinahat D/C			2010					Work in progress
3	132 kV Agia - Nangalbibra								Work in progress
<b>E : Lines under Mizoram :</b>									
1	132 kV Khawzawl-E Lungdar S/C	48			100	100	76	0	Work in progress
2	132 kV Khawzawl-Ngopa S/C	57			117	117	117	57	Work in progress
3	132 kV Kolasib-Tuirial S/C	41			114	114	114	41(Conducto	Work in progress
4	Kolasib-Sairul B D/C	25							Work in progress
5	132 kV Kolasib-Melriat S/C	90			369	Nil	Nil	Nil	Work in progress
6	132 kV Bairabi-Bawktlang S/C	30			93	91	85	14	Work in progress
7	132 kV Khawzawl-Champhai S/C	30			90	Nil	Nil	Nil	Work in progress
<b>G : CTU Lines:</b>									
1	`+/- 800 kV HVDC Bipol Bis'nath Chariyal-Agra	1971	08/2013	08/2013	2293	1016	210		All tower packages award
2	400 kV Balipara - Biswanath Chariyal D/C	130	08/2013	08/2013	167	98	40		
3	LILO of 400 kV R'nadi-Balipara D/C at Bis Chariyal	54	08/2013	08/2013	68	5			
4	400 kV Kameng - Balipara D/C	110	02/2013	02/2013	142	9			
5	400 kV Balipara - Bongaigaon D/C	596	02/2013	03/2012	838	445	137		
6	400 kV Lower Subansiri - Biswanath Chariyal line-I	334	02/2013	03/2012	432	198	85		
7	400 kV Lower Subansiri - Biswanath Chariyal line-II	340	02/2013	03/2012	442	192	55		
8	LILO of 132 kV Dimapur-Kohima at Dimapur (PG)	2	09/2009	03/2011	3				ROW problem
9	132 kV Kopili-Khandong	12	09/2009	12/2010	43	37	37	10	ROW problem
10	132 kV D/C Biswanath Chariyal- B. Chariyal (AEGCL)	32	08/2013	08/2013	55				Engg.&survey under prog.
11	400 kV D/C Bongaigaon TPS-Bongaigaon								
12	400 kV Palatana - Silchar	248							
13	400 kV Silchar - Bongaigaon	405							

Name of the line	Length	Comm'n'g Sch		Total no. of locs .	Stubs com - pleted(nos.)	Tower Erected	Stringing complt-ckm	Remarks
	(ckt kms)	Ann.pl	Ant/revd					
<b>H : Lines under Arunachal Pradesh</b>								
<b>i) Transmission Lines Plan works completed &amp; on going</b>								
1. 132 kV Nirjuli - Itanagar S/C (Under NLCPR)		2007-12				Completed	in progress	Work is in progress
2. 132 kV Along - Pasighat (Under NLCPR)		2007-12						Work is in progress
3. 132 kV Ranganadi - Itanagar S/C		2007-12						Work is in progress
<b>ii) Proposed for XIth Five Years Plan (State)</b>								
1. 132 kV Khupi - Seppa		2007-12						Work is in progress
2. 132 kV Line LILO at Bhalukpong		2007-12						Work is in progress
3. 132 kV Nirjuli - Banderdewa		2007-12						Work is in progress
4. 132 kV Along - Yingkiong		2007-12						Work is in progress
5. 132 kV Naharlagun - Seppa		2007-12						Work is in progress
6. 132 kV Roing - Anini		2007-12						Work is in progress
7. 132 kV Along - Reying		2007-12						Work is in progress
8. 132 kV Tezu - Roing		2007-12						Work is in progress
9. 132 kV Namsai - Tezu		2007-12						Work is in progress
10. 132 kV Ziro - Sangram		2007-12						Work is in progress
<b>iii) Proposed for XIth Five Years Plan (NEC)</b>								
1. 132 kV Pasighat - Roing		2007-12						Work is in progress
2. 132 kV Likabali - Gerukamukh		2007-12						Work is in progress
3. 132 kV Pasighat - Niglok		2007-12						Work is in progress
4. 132 kV Deomali - Khonsa		2007-12						Work is in progress
5. 132 kV Khupi - Banderdawa		2007-12						Work is in progress
6. 132 kV Banderdawa - Tawang		2007-12						Work is in progress
7. 132 kV Khonsa - Changlang		2007-12						Work is in progress
8. 132 kV Changlang - Jairampur		2007-12						Work is in progress
9. 132 kV Jairampur - Miao		2007-12						Work is in progress
10. 132 kV Itanagar - Seijusa		2007-12						Work is in progress
11. 132 kV Seijusa - Balipara		2007-12						Work is in progress
<b>iv) Proposed for XIth Five Years Plan (NEC)</b>								
1. 132 kV Niglok - Likabali		2007-12						Work is in progress
2. 132 kV Itanagar - Gohpur		2007-12						Work is in progress

**UI Receivable/ Payable for the month of****Nov-10**

Organisation	Actual (MU)	Schedule (MU)	UI Energy (MU)	UI Receivable (Rs. in Lakhs)	UI Payable (Rs. in Lakhs)
Arunachal Pradesh	38.053	35.299	2.754	14.394	62.273
ASEB	271.053	288.005	-16.952	212.304	93.730
Manipur	46.126	49.356	-3.230	42.138	23.889
MeSEB	84.772	71.709	13.063	2.237	152.342
Mizoram	25.816	21.021	4.796	0.218	90.747
Nagaland	35.939	22.937	13.003	2.155	229.878
Tripura	1.636	0.223	1.414	19.919	42.778

**Entitlement, Schedule, Drawal and UI Charges****Nov-10**

	Entitlement from CGSs (MU)	Drawal Schedule from CGSs (MU)	Net Schedule from Grid (MU)	Actual Drawal from Grid (MU)	Over Drawal (+) / Under Drawal (-) (MU)	UI Payable (-)/ Receivable (+) (Rs. In Cr)
Arunachal Pradesh	33.106	33.205	35.299	38.053	2.754	-0.479
ASEB	207.711	207.236	288.005	271.053	-16.952	1.186
Manipur	47.563	47.631	49.356	46.126	-3.230	0.182
MeSEB	54.542	54.542	71.709	84.772	13.063	-1.501
Mizoram	23.065	23.063	21.021	25.816	4.796	-0.905
Nagaland	26.008	25.949	22.937	35.939	13.003	-2.277
Tripura	38.277	38.658	0.223	1.636	1.414	-0.229

( Source : UI A/c, NERPC )

**Schedule for ISGS's Generation and State's Drawal for the month of**

**Nov-10**

States	Schedule From ISGS(MWH)	Bilateral Schedule from Outside NER ( MWH )	Total Schedule ( MWH )	Ex.PP. Drawal ( MWH )	Tr. Energy ( MWH )
Arunachal Pradesh	33105.83	3143.10	36248.93	39273.15	39273.15
ASEB	207711.45	90128.90	297840.35	279742.19	297840.35
Manipur	47562.52		47562.52	47604.66	47604.66
MeSEB	54541.82	22363.35	76905.17	87489.95	87489.95
Mizoram	23065.18		23065.18	26643.92	26643.92
Nagaland	26008.12	10386.45	36394.57	37091.56	37091.56
Tripura	38277.35		38277.35	1688.86	38277.35
<b>Total</b>	<b>430272.27</b>	<b>126021.80</b>	<b>556294.07</b>	<b>519534.29</b>	<b>574220.94</b>

ISGS	Schedule ( MWH )	Injection ( MWH )
LOKTAK	59811.44	59632.52
KHANDONG	9588.40	9123.14
KOPILI-I	71644.18	72036.93
KOPILI-II	4819.31	4889.78
DHEP	6430.46	6366.29
RHEP	72022.44	72714.98
AGTPP	54344.30	54573.86
AGBPP	151611.75	150696.48
<b>Total</b>	<b>430272.27</b>	<b>430033.99</b>

Source : Provisional REA for the month: **Nov-10**

**Cumulative wt. Average Share Allocation (%) ( Up to this month) in CS Stations**

States	KOPILI	KOPILI-II	KHANDONG	RHEP	DHEP	AGBPP	AGTPP	Loktak HEP
	(200 MW)	(25 MW)	( 50 MW)	(405 MW)	(75 MW)	(291 MW)	( 84 MW)	( 90 MW)
Arunachal Pradesh	5.193	6.193	4.192	18.462	6.882	5.693	6.180	4.942
Assam	53.455	46.615	56.277	43.328	43.742	56.465	45.178	29.415
Manipur	7.385	7.225	6.565	8.373	7.893	8.125	8.143	30.115
Meghalaya	17.150	18.650	16.650	11.250	11.230	11.550	11.340	12.140
Mizoram	4.619	6.278	3.940	5.710	5.240	5.429	6.190	5.068
Nagaland	6.155	5.656	6.653	5.335	17.935	5.805	5.607	6.427
Tripura	6.043	9.383	5.723	7.542	7.078	6.933	17.362	11.893
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

**Details of Fixed and Energy Charges of CS Stations for FY 2009-10**

Projects	Installed Capacity ( MW )	Design Energy (GWh )	Annual Fixed Charge ( Rs. Crore)	Reference
KOPILI HEP	200	1186.14*	57.6738 *	*As per CERC order dated 19.02.08 in petition No 76/2007.
KOPILI -II	25	86.3*	12.9511 **	* Provisional, ** As per CERC order dated 01.01.08 in pet. No 70/2006
KHANDONG HEP	50	277.61*	19.6328 *	*As per CERC order dated 14.01.08 in petition No 26/2007.
RHEP	405	1509.69	203.4081	*As per CERC order dated 30.04.08 in petition No 89/2007.
DHEP	75	227.24	58.5 *	*As per CERC order dated 03.10.07 in petition No 88/2007.
AGBPP	291	NA	233.59 *	*As per CERC order dated 22.02.08 in Pet.No150/2005, ^ Base Rate of energy Charge as per CERC Order
AGTPP	84	NA	52.71 *	*As per CERC order dated 20.02.08 in Pet.No 135/2005,^Base Engy. charge as per CERC order
LOKTAK HEP	105	448.00	50.0353 *	*As per CERC order dated 05.09.07 in Pet.No 171/2004

## HOURLY DATA ON PEAK DEMAND MET DAY

DATE:- 05.11.2010

All figures in MW

HRS.	Total ISGS Injection (MW)	STATE SECTOR														ER					Total Drawal by States
		ASEB			MeSEB			Tripura			Manipur	Mizoram	Nagaland	ArPr	Total N.E.R GEN		Total Demand Met	Gross Demand met	Actual Loss		
		GEN	Drawal	Demand Met	GEN	Demand Met	Drawal	GEN	Demand Met	Drawal	DM	DM	DM	DM						IMPORT(+)/EXPORT(-)	
1	435.54	188	368.43	556.5	66	173.3	107.14	98	80.7	-17.26	34.61	19.83	33.88	41.96	167.44	787.80	940.85	955.30	14.5	421.08	
2	433.56	188	357.60	545.7	60	164.3	103.91	98	79.9	-18.07	27.36	18.82	30.07	43.22	146.47	780.04	909.39	926.58	17.2	416.38	
3	444.51	188	339.20	527.3	60	164.8	104.89	98	77.4	-20.58	28.88	17.83	41.28	45.79	130.56	790.49	903.25	921.11	17.9	426.66	
4	463.14	188	331.13	519.2	59	169.6	110.19	98	76.8	-21.20	23.30	19.02	30.37	45.81	93.79	808.66	884.16	902.51	18.4	444.78	
5	462.59	188	345.75	533.8	59	176.3	117.31	98	77.2	-20.76	33.97	21.60	37.44	44.69	140.40	807.69	925.10	948.16	23.1	439.54	
6	484.05	188	349.35	537.8	58	169.4	110.99	98	78.6	-19.43	65.00	32.60	51.52	55.59	198.99	828.90	990.48	1027.96	37.5	446.58	
7	579.23	188	347.08	535.5	78	200.0	122.16	98	82.4	-15.65	64.92	40.69	54.67	63.23	123.48	943.51	1041.38	1067.05	25.7	553.56	
8	575.30	188	336.73	524.8	78	191.1	113.11	98	83.8	-14.25	86.77	38.94	39.41	57.95	97.24	939.38	1022.74	1036.68	13.9	561.36	
9	581.59	188	325.42	513.1	51	149.9	98.56	74	61.9	-12.44	75.75	32.69	31.52	51.18	35.08	895.04	916.12	930.18	14.1	567.53	
10	477.30	188	307.36	495.1	64	185.1	120.71	74	64.6	-9.62	64.11	30.50	38.47	45.19	140.07	803.57	922.99	943.70	20.7	456.59	
11	469.15	188	308.76	496.5	85	193.2	108.54	74	63.9	-10.12	64.00	28.93	36.84	46.92	129.58	815.52	930.23	945.16	14.9	454.23	
12	471.90	188	332.70	520.4	108	227.0	118.77	74	66.3	-7.66	55.68	25.63	31.18	47.52	147.02	841.82	973.74	988.90	15.2	456.73	
13	472.65	189	322.47	511.5	108	238.2	129.89	54	48.8	-5.38	55.36	29.65	36.60	43.36	160.54	824.06	963.36	984.67	21.3	451.34	
14	465.46	183	328.49	511.8	87	242.3	155.42	74	72.0	-2.34	77.40	31.18	40.48	44.98	226.64	810.02	1020.18	1036.73	16.6	448.91	
15	468.52	188	323.11	510.6	97	256.9	160.34	75	72.0	-2.57	75.68	39.36	46.93	42.88	235.19	827.25	1044.46	1062.50	18.0	450.47	
16	489.49	188	316.78	504.3	112	256.0	144.20	73	75.0	2.00	87.35	43.10	54.99	44.63	210.98	861.88	1065.44	1072.92	7.5	482.00	
17	769.90	188	499.71	687.2	125	259.0	133.49	73	118.7	45.48	81.07	54.55	72.29	72.29	223.23	1156.16	1345.14	1379.52	34.4	735.52	
18	1024.66	188	656.23	843.8	126	239.6	113.54	71	154.7	83.17	80.75	45.07	82.89	70.53	125.40	1409.70	1517.23	1535.22	18.0	1006.66	
19	988.33	188	650.24	838.5	125	242.3	116.89	73	152.7	79.32	93.10	42.52	82.62	71.52	191.74	1375.36	1523.23	1567.23	44.0	944.34	
20	1055.42	188	661.87	850.1	101	209.0	107.92	71	146.8	76.11	94.04	46.35	73.32	68.77	110.93	1415.46	1488.43	1526.51	38.1	1017.33	
21	964.39	189	627.99	816.6	101	219.6	118.56	71	137.0	66.22	92.70	43.68	67.03	62.38	167.37	1324.82	1438.99	1492.32	53.3	911.06	
22	795.24	189	567.24	756.2	122	243.5	121.09	71	122.0	51.00	96.41	36.79	55.03	57.62	218.82	1177.68	1367.61	1396.63	29.0	766.22	
23	656.37	189	471.00	659.6	122	263.4	141.42	71	104.4	33.00	84.56	27.95	45.18	44.90	206.54	1038.40	1230.05	1245.00	15.0	641.41	
24	520.03	189	369.38	558.0	122	261.5	139.71	64	80.2	16.28	72.95	22.44	40.19	41.05	199.28	894.39	1076.36	1093.73	17.4	502.65	
<b>Max</b>	1055.42	189	661.87	850.13	126	263.4	160.34	98	154.7	83.17	96.41	54.55	82.89	72.29	235.19	1415.46	1523.23	1567.23	53.3	1017.33	
<b>Min</b>	433.56	183	307.36	495.07	51	149.9	98.56	54	48.8	-21.20	23.30	17.83	30.07	41.05	35.08	780.04	884.16	902.51	7.5	416.38	

## HOURLY DATA ON MINIMUM DEMAND MET DAY

DATE: 15.11.2010

All figures in MW

HRS.	Total ISGS Injection (MW)	STATE SECTOR													ER	Total N.E.R GEN	Total Demand Met	Gross Demand met = Sum of demand met of all the states+loss	Actual Loss	Total Drawal by States
		ASEB			MeSEB			Tripura			Manipur	Mizoram	Nagaland	ArPr						
		GEN	Demand Met	Drawal	GEN	Demand Met	Drawal	GEN	drawal	Demand Met	DM	DM	DM	DM						
1	358.60	242	492.5	250.88	76	193.1	117.20	95	-13.65	81.47	31.74	18.42	36.03	49.45	156.14	771.1	902.6	927.32	24.7	333.89
2	377.46	187	428.5	241.15	52	186.7	135.07	95	-16.51	78.47	26.25	18.14	35.32	46.63	129.27	711.5	820.0	840.76	20.7	356.75
3	375.61	187	424.8	237.47	51	180.6	129.65	95	-16.82	78.15	22.54	18.91	35.21	41.65	110.17	708.9	801.9	819.07	17.2	358.41
4	377.28	187	427.8	240.83	51	183.0	132.17	95	-18.47	76.44	17.40	19.01	34.78	46.12	112.62	710.0	804.5	822.63	18.1	359.18
5	385.43	187	439.6	252.25	51	194.0	143.17	95	-13.96	81.35	26.29	22.56	44.99	50.69	164.03	718.9	859.5	882.98	23.5	361.94
6	497.49	187	483.1	295.71	51	193.8	143.17	95	-9.02	86.04	47.60	35.31	64.48	55.64	136.48	830.5	965.9	972.65	6.7	490.77
7	528.17	187	501.2	313.83	87	218.9	131.57	95	-0.50	94.59	58.05	48.53	63.81	55.38	170.92	897.9	1040.4	1068.88	28.5	499.71
8	477.02	187	504.6	317.31	87	150.3	62.87	95	2.48	97.42	65.63	43.32	55.49	56.91	124.26	846.7	973.7	971.04	-2.7	479.69
9	383.25	187	477.3	289.92	88	193.1	105.47	95	1.54	96.32	60.96	33.26	42.17	54.90	225.71	753.0	957.9	978.72	20.8	362.48
10	440.66	187	481.1	293.71	88	170.3	82.58	94	2.13	96.62	52.84	29.43	35.73	46.71	112.45	810.3	912.7	922.75	10.0	430.64
11	433.19	188	479.2	291.08	88	187.1	99.37	94	-1.67	91.86	58.23	28.50	33.54	41.66	124.86	802.5	920.1	927.42	7.4	425.83
12	437.45	188	482.4	294.35	64	142.1	78.34	94	-1.54	92.11	35.16	28.24	35.24	48.86	124.62	783.0	864.1	907.60	43.5	394.00
13	247.88	188	511.8	323.37	77	140.5	63.96	94	8.03	101.65	30.77	3.86	40.25	46.86	308.24	606.5	875.7	914.76	39.0	208.83
14	289.03	188	491.5	303.01	48	129.1	81.40	89	5.15	93.72	78.15	34.14	47.48	42.88	325.75	613.8	917.0	939.56	22.6	266.43
15	307.93	188	493.4	305.29	60	140.9	80.97	89	9.10	98.12	78.24	40.13	52.08	40.04	329.54	644.9	942.9	974.52	31.7	276.28
16	494.61	188	529.4	341.36	66	166.4	100.80	89	15.59	104.83	82.55	45.36	55.46	52.07	202.14	837.5	1036.1	1039.68	3.6	491.02
17	35.11	188	312.0	123.92	42	36.9	-4.84	89	26.80	116.06	0.00	2.16	1.86	11.88	99.15	354.2	480.9	453.40	-27.5	62.57
18	253.02	135	382.0	246.73	81	161.3	80.54	64	36.77	100.57	23.30	36.12	8.50	51.54	245.71	532.9	763.4	778.68	15.3	237.72
19	827.35	239	712.8	474.21	108	207.2	99.27	83	69.35	152.14	80.12	60.31	54.55	65.24	103.58	1256.7	1332.4	1360.33	28.0	799.39
20	939.20	239	783.7	545.04	96	207.6	111.86	95	68.31	163.12	89.01	58.09	50.48	63.43	92.78	1368.4	1415.4	1461.27	45.8	893.38
21	907.70	239	773.3	534.70	78	188.5	110.30	95	58.83	154.21	62.95	52.40	44.04	65.02	42.65	1319.9	1340.5	1362.65	22.2	885.52
22	823.86	239	708.9	470.30	78	181.3	103.08	95	37.98	133.22	65.87	41.56	46.75	59.08	22.60	1236.0	1236.7	1258.61	21.9	801.95
23	799.23	238	619.0	380.75	74	177.7	103.53	95	9.25	104.64	79.02	31.29	40.00	45.52	-104.89	1207.0	1097.2	1102.18	5.0	794.20
24	525.18	242	524.9	283.37	66	211.1	145.02	95	-6.70	88.51	66.67	25.26	34.96	47.05	89.68	928.1	998.5	1017.77	19.3	505.91
<b>Max</b>	939.20	242	783.7	545.04	108	218.9	145.02	95	69.35	163.12	89.01	60.31	64.48	65.24	329.54	1368.4	1415.4	1461.27	45.8	893.38
<b>Min</b>	35.11	135	312.0	123.92	42	36.9	-4.84	64	-18.47	76.44	0.00	2.16	1.86	11.88	-104.89	354.2	480.9	453.40	-27.5	62.57

*ANNEXURES*  
&  
*EXHIBITS*

RESERVOIR PARTICULARS OF THE MONTH :

Nov-10

Name of the Reservoirs	FRL	MDDL	Beginning of the month		End of the month	
			Level	Energy content(MU)	Level	Energy content(MU)
KHANDONG	719.3 M	704 M	717.80	20.50	715.85	17.00
KOPILI	609.5 M	592.83 M	608.65	94.50	607.09	81.00
LOKTAK	768.5 M	766.2 M	768.90	250.00	768.65	250.00
BARAPANI	3220 Ft	3150 Ft	3216.72	46.40	3212.48	41.75
GUMTI	93.55 M	83.6 M	91.20	24.30	90.48	25.60
DOYANG	333 M	306 M	321.57	29.00	321.37	28.00

**FREQUENCY ANALYSIS FOR THE MONTH OF : Nov-10**

Frequency	( Freq.in Hz )	( Time: H:M )	( Date:D.M.Y )
1. Maximum frequency	50.72	0:42	11.11.10
2. Minimum frequency	49.12	18:09	18.11.10
3. Monthly average	50.00		

**Frequency in Hz as %age of time for the blocks :**

f < 49.5	49.5 < f < 50.2	f > 50.2
0.44	86.91	12.65

**Daily Frequency Variation Index :**

DATE	FVI	DATE	FVI
1-Nov-10	0.281	17-Nov-10	0.210
2-Nov-10	0.250	18-Nov-10	0.350
3-Nov-10	0.320	19-Nov-10	0.360
4-Nov-10	0.260	20-Nov-10	0.520
5-Nov-10	0.260	21-Nov-10	0.520
6-Nov-10	0.260	22-Nov-10	0.210
7-Nov-10	0.220	23-Nov-10	0.520
8-Nov-10	0.230	24-Nov-10	0.300
9-Nov-10	0.240	25-Nov-10	0.330
10-Nov-10	0.240	26-Nov-10	0.360
11-Nov-10	0.310	27-Nov-10	0.490
12-Nov-10	0.240	28-Nov-10	0.310
13-Nov-10	0.210	29-Nov-10	0.440
14-Nov-10	0.210	30-Nov-10	0.490
15-Nov-10	0.300		
16-Nov-10	0.390	<b>Average FVI</b>	<b>0.321</b>

**Annexure-III**

**Details of Scheduled Bilateral Exchanges within the Region in**

**Nov-10**

Sl.No.	From	To	Energy ( At Seller Injn. Point) (MWH)		Energy ( At State Periphery) (MWH)
1	Tripura(Baramura)	Manipur	3192.000000		3100.230000
2	Tripura(Baramura)	Mizoram	3192.000000		3100.230000
3	ASEB	POWERGRID^	178.751000	^ The actual energy consumed by POWERGRID	

**Scheduled Bilateral Exchange with SEBs / Organisations in other Regions**

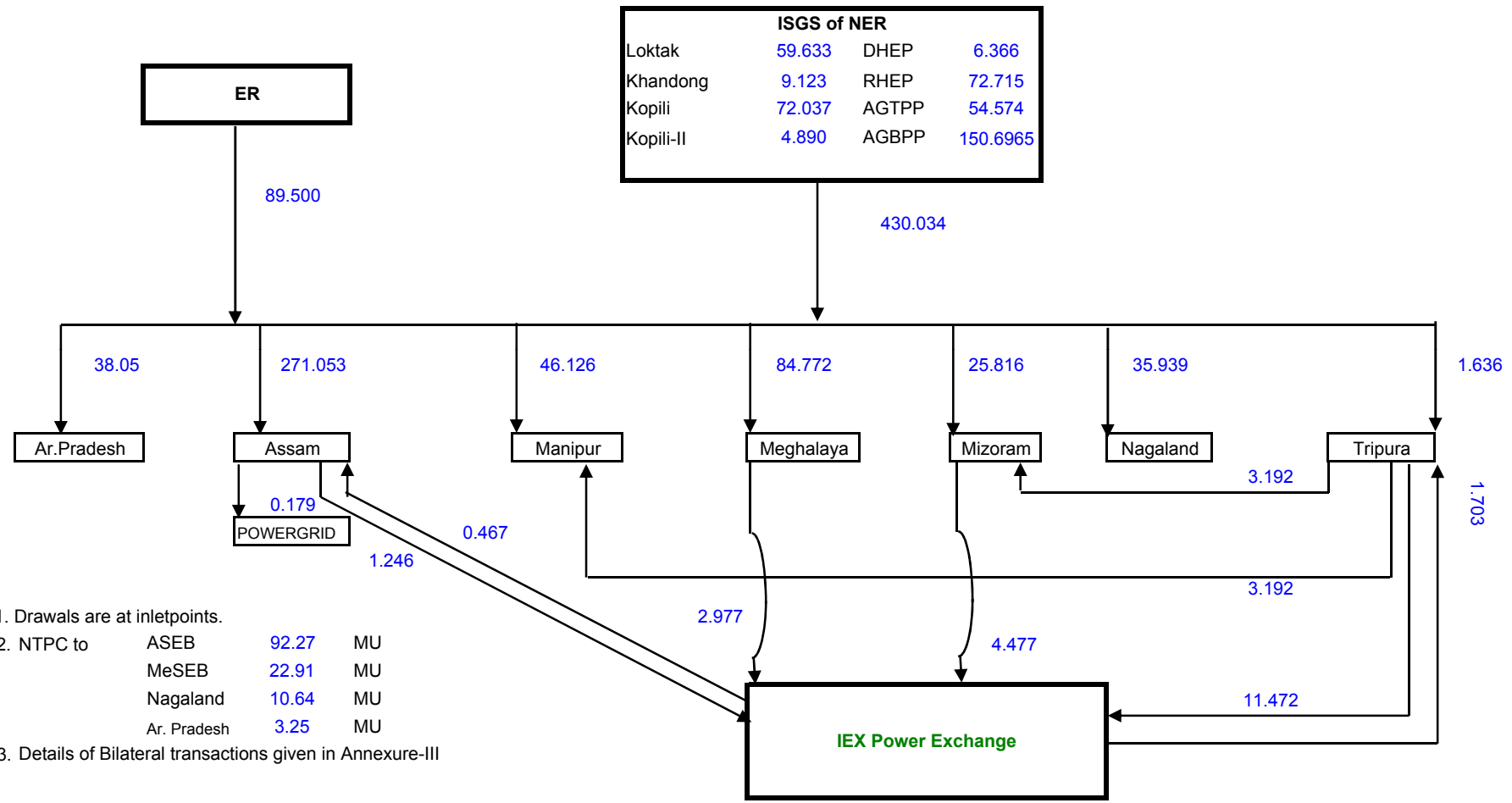
Sl.No.	From	To	Energy ( At Seller Periphery) (MWH)	Energy ( At NER-ER Periphery) (MWH)	Energy ( At Buyer Periphery) (MWH)
1	Nag	MPTradeco (Nag)	12350.000000	11992.230000	
2	TSECL	J&K (NVVN)	3600.000000	3495.960000	
3	TSECL	J&K (NVVN)	10800.000000	10487.880000	
4	TSECL	MSEDCL (NVVN)	6900.000000	6700.590000	
5	WBSEDCL	TSECL (NVVN)	140.000000	136.800000	132.960000
6	Farakka*	Ar. Pradesh	1592.740875	1530.450000	1486.303400
7	Kahalgaon 1*	Ar. Pradesh	717.680250	694.375000	674.284500
8	Talcher*	Ar. Pradesh	939.411375	918.275000	891.821450
9	Farakka*	Assam	28506.624575	27840.700000	27037.659000
10	Kahalgaon 1*	Assam	9066.387625	8862.575000	8605.933150
11	Kahalgaon 2*	Assam	42142.387100	41165.325000	39977.511950
12	Talcher*	Assam	12550.439700	12260.300000	11907.127525
13	Farakka*	MeECL	4672.039900	4576.300000	4444.302650
14	Kahalgaon 1*	MeECL	2153.040750	2099.975000	2039.182025
15	Kahalgaon 2*	MeECL	13325.656000	13008.250000	12632.894450
16	Talcher*	MeECL	2755.606700	2678.825000	2601.662850
17	Farakka*	Nagaland	5138.433150	5033.575000	4888.381750
18	Kahalgaon 1*	Nagaland	2476.679750	2411.375000	2341.555350
19	Talcher*	Nagaland	3022.752650	2941.500000	2856.759525

**Bilateral exchange through IEX Power Exchange (-ve means injection, +ve means drawal)**

20	Assam		-1245.670000	-1209.510000	
21	Assam			480.000000	466.560000
22	MeECL		-2977.210000	-2891.020000	
23	Mizoram		-4477.160000	-4348.000000	
24	Tripura		-11471.880000	-11137.960000	
25	Tripura			1753.000000	1702.760000

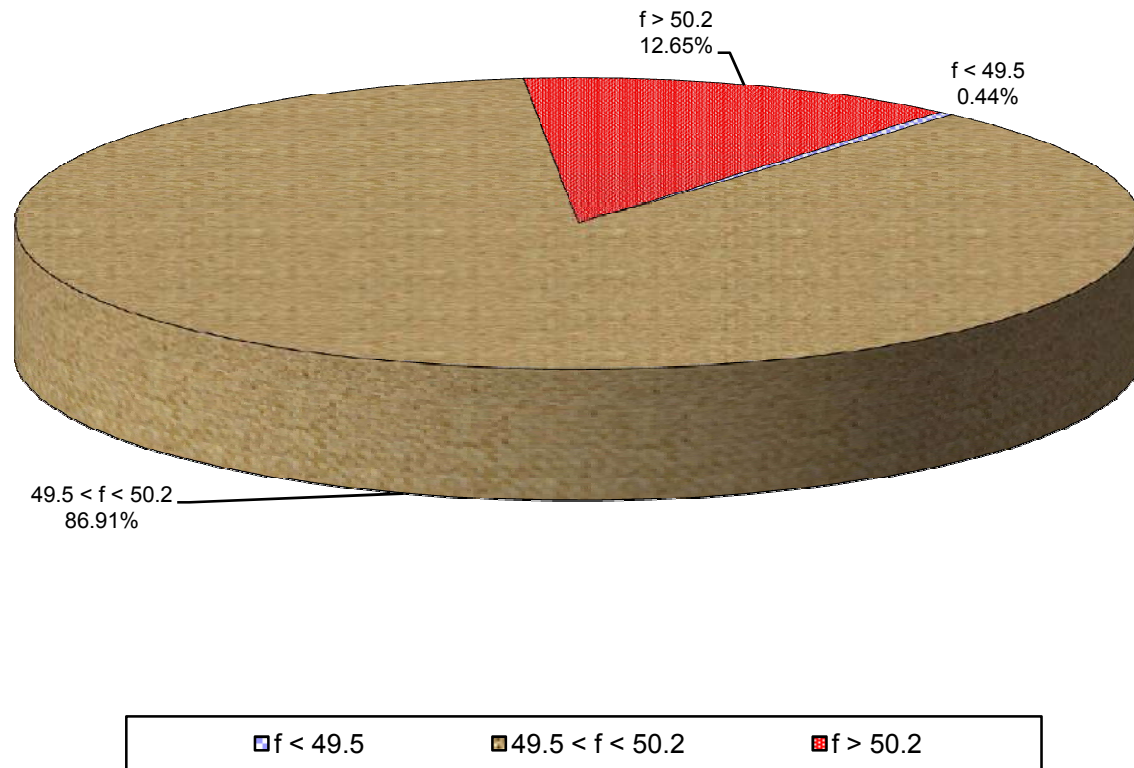
**Bilateral exchange through PX Power Exchange (-ve means injection, +ve means drawal)**


ENERGY EXCHANGE( in MU ) IN NER DURING November, 2010

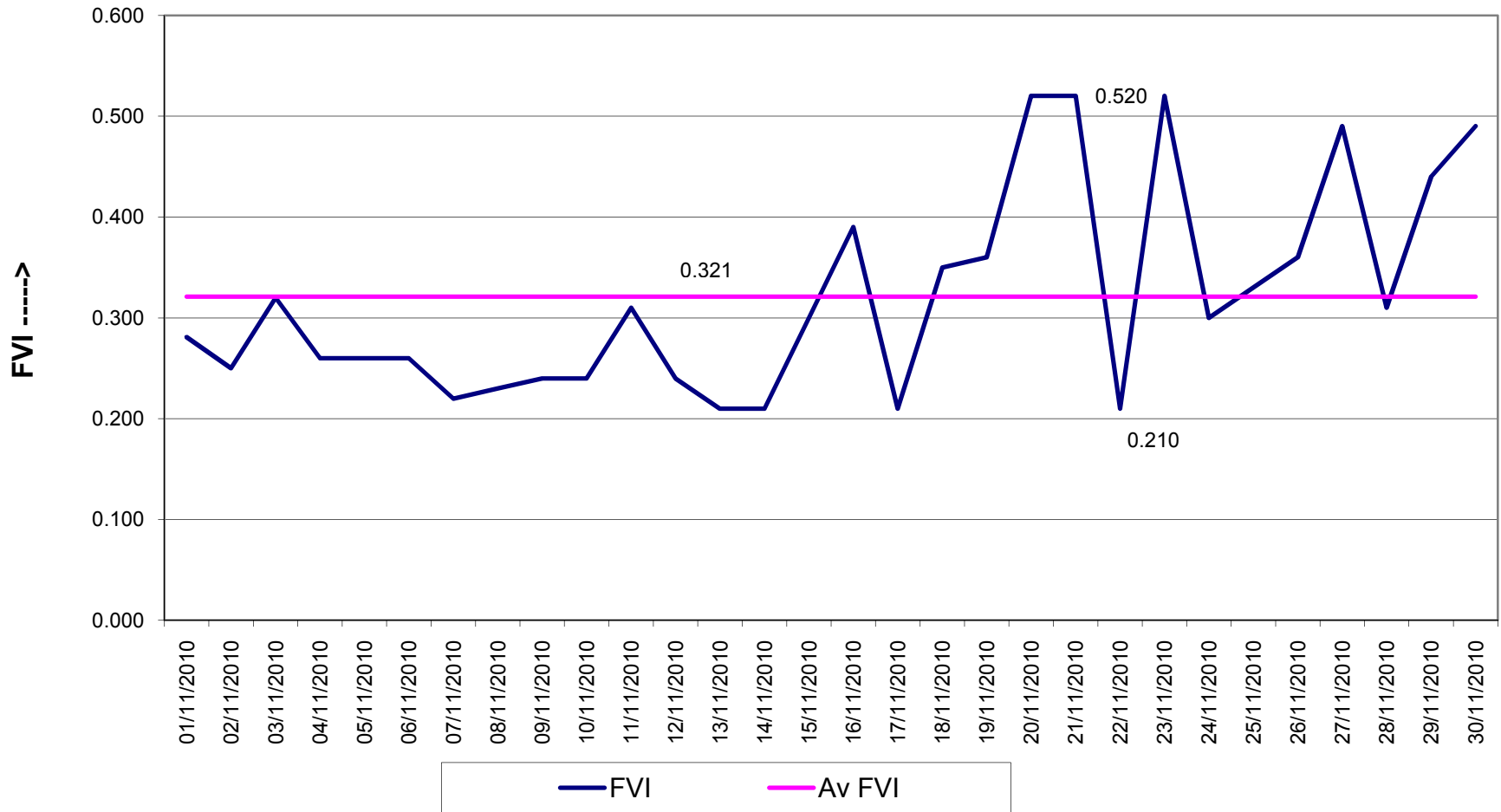


N.B - 1. Drawals are at inletpoints.  
 2. NTPC to ASEB 92.27 MU  
 MeSEB 22.91 MU  
 Nagaland 10.64 MU  
 Ar. Pradesh 3.25 MU  
 3. Details of Bilateral transactions given in Annexure-III

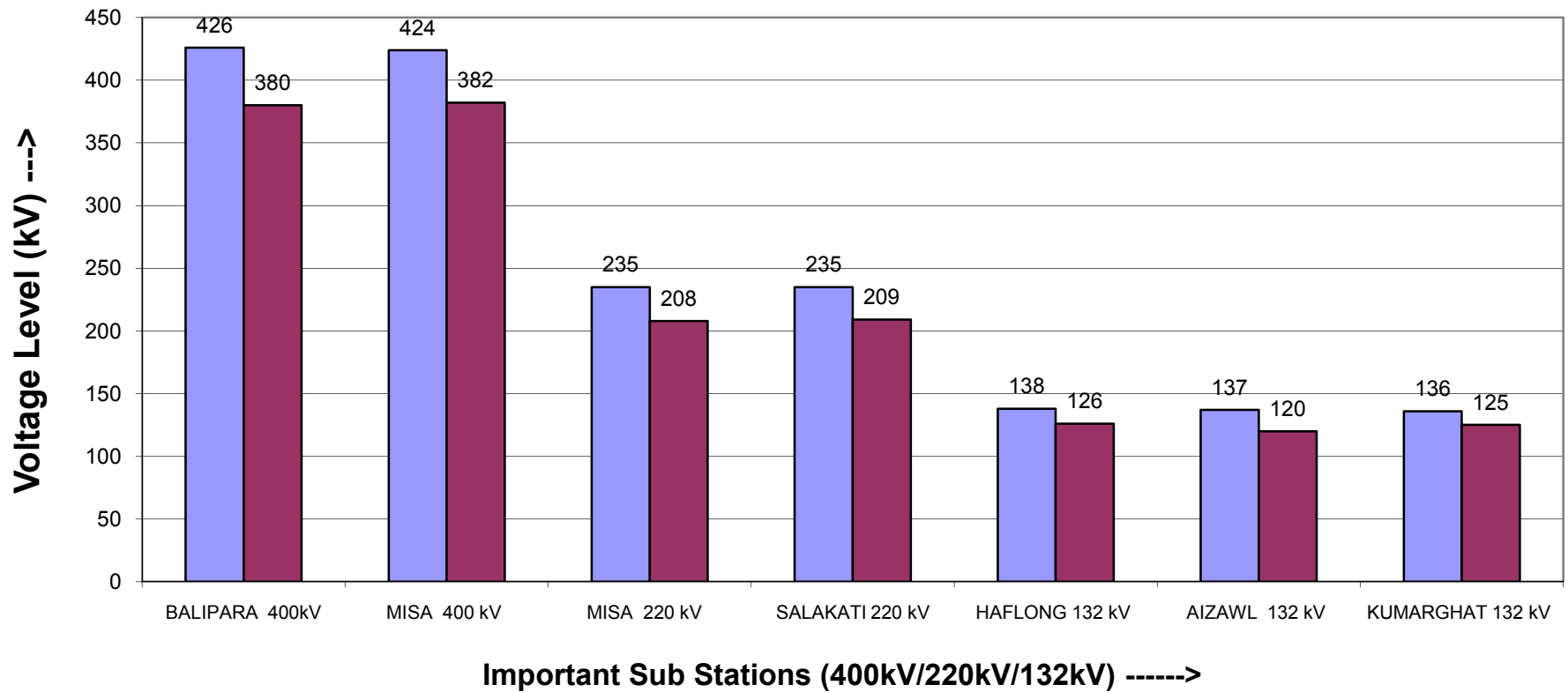
Frequency Duration for **November, 2010**



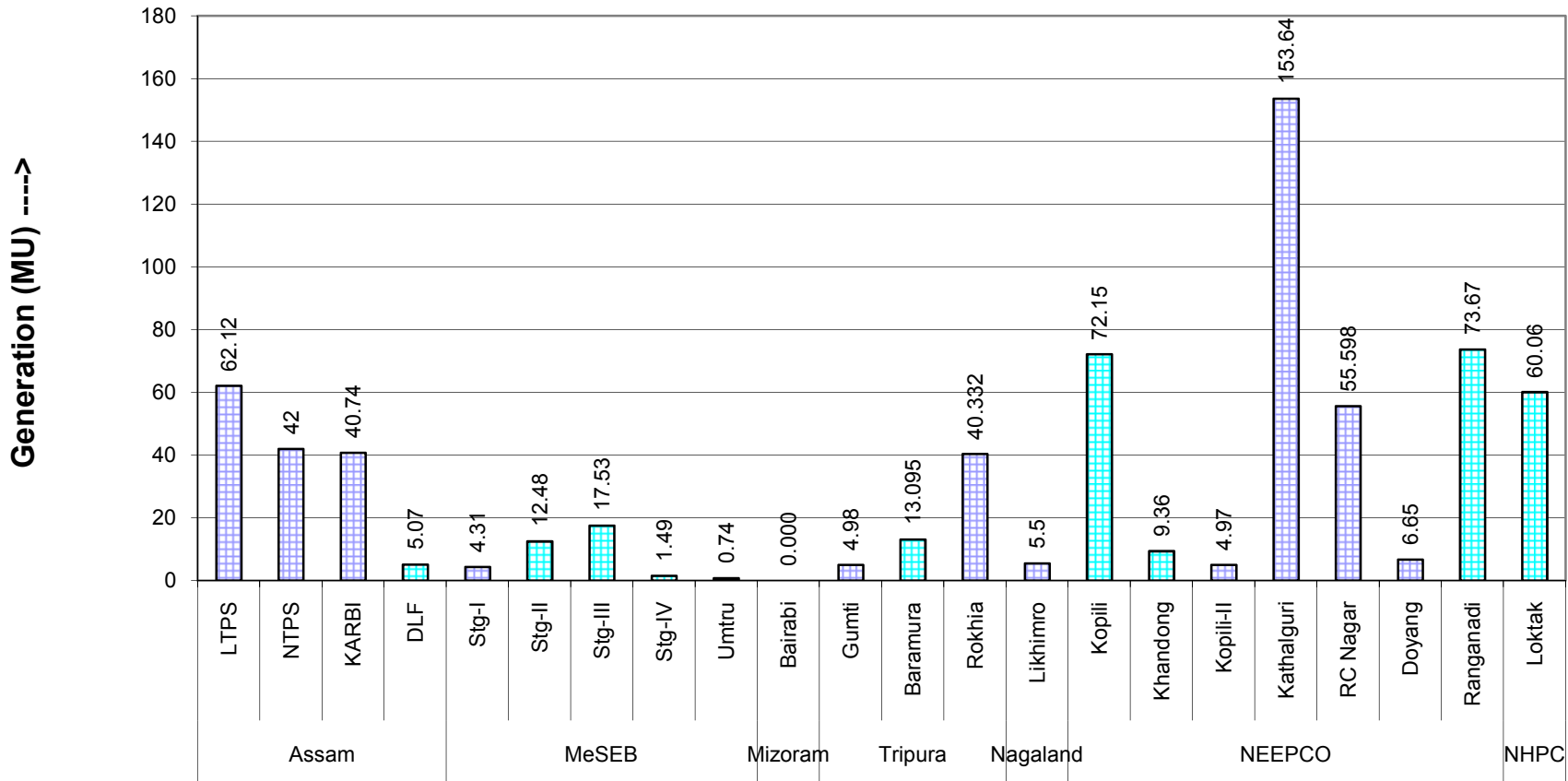
### FVI Characteristics for November, 2010



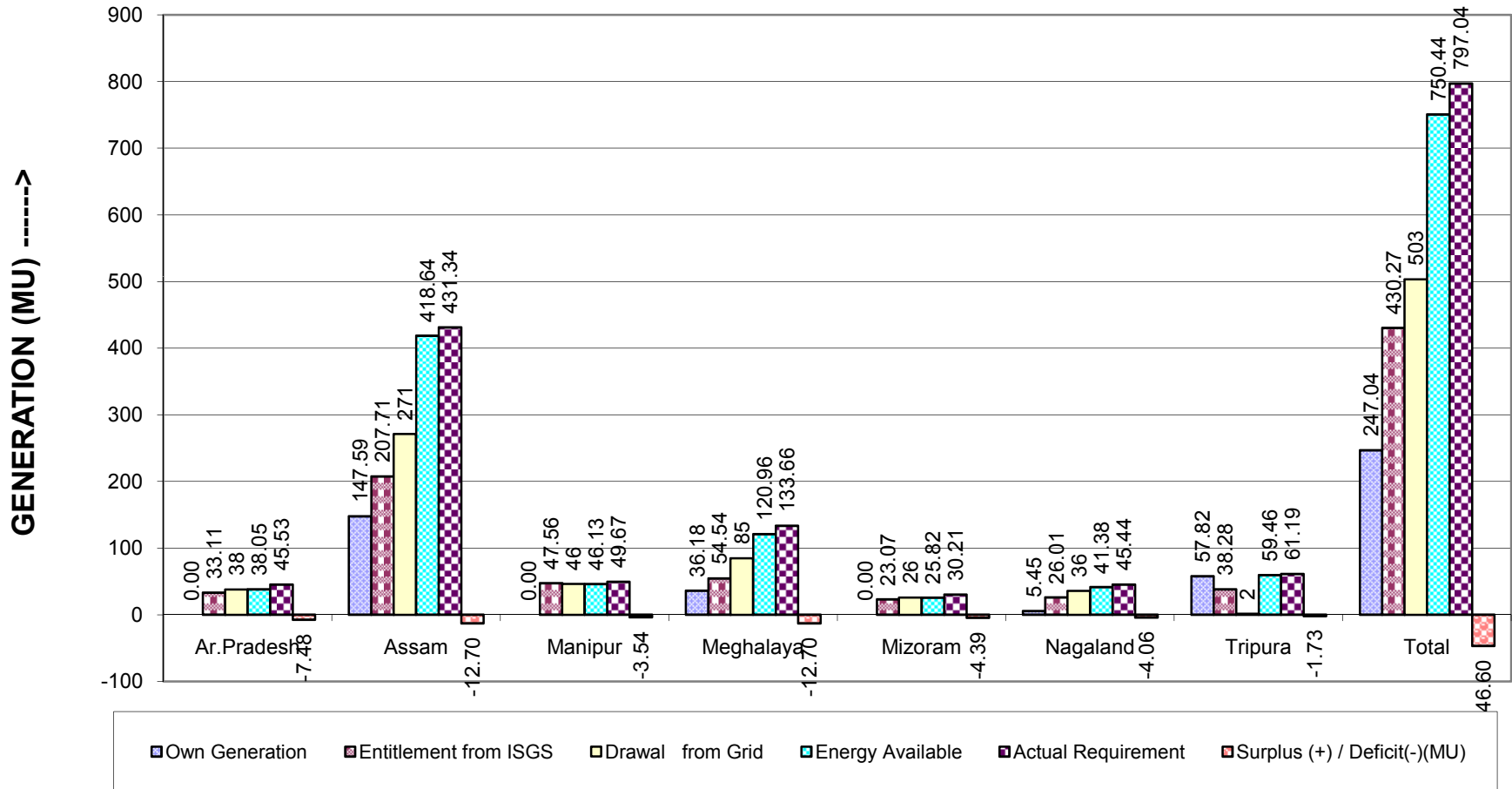
Maximum & Minimum Voltage Levels of Important Substations in NER during **November, 2010**



State and Central Sector Generation (MU) in NER in November, 2010



NER States Energy Scenario in November, 2010



Reservoir Statistics of NER in November, 2010

