



सत्यमेव जयते

भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

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सेवा में,

To

संलग्नक सूचि के अनुसार

As per enclosed list.

विषय: उ.पू.क्षे.वि.स. की **दिसम्बर 2016** की मासिक प्रगति रिपोर्ट

Subject: Monthly Progress Report of NERPC for the month of **December 2016**.

महोदय,

Sir,

उत्तर पूर्वी क्षेत्रीय विद्युत समिति की **दिसम्बर 2016** की मासिक प्रगति रिपोर्ट आपके अवलोकनार्थ हेतु हमारा वेबसाइट www.nerpc.nic.in में अपलोड की गई है।

The Monthly Progress Report of the North Eastern Regional Power Committee for the month of December is uploaded in our office website www.nerpc.nic.in for your perusal.

भवदीय / Yours faithfully,

संलग्न : यथोपरि

Encl: as above

(एल. बी. मुआनथंग/ L. B. Muanthang)

अधीक्षण अभियंता / Superintending Engineer

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Brief highlights of North Eastern Regional Power System for the month of December 2016

- The maximum unrestricted demand during the month of December 2016 was 2245MW, which was 2377 MW in the month of November 2016. The peak demand met in NER during the period under review was 2223MW, which was 2314 MW in the previous month.
- The energy requirement during the month of December 2016 was 1213.53 MU, which was 1188.08 MU in the month of November 2016. The energy availability in NER during the period under review was 1192.08MU, which was 1169.79MU in the previous month.
- The maximum, minimum & average system frequency were 50.31 (27-December-16), 49.67 (12-December-16)&49.99 Hz respectively. The maximum, minimum & average FVI were 0.076, 0.037& 0.053 respectively. The average FVI was more than its previous month's figure of 0.048. (Refer Annex-II).
- Maximum export of power from NER to ER was 732 MW (on 27.12.16 at 04:00 Hrs) and that from ER to NER was 1314 MW (on 10.12.16 at 16:45 Hrs). The same Inter-Regional Exchanges of NER with NR and vice versa were 703.42 MW (on 01.12.16 at 11:30Hrs.) and 680 MW (on 15.12.16 at 12:15 Hrs) respectively. Total net energy import during the month was 163.97MU (-141.24 MU from ER and 305.21 MU from NR).

Salient Features of North Eastern Regional Grid for December 2016

1	New Unit/Transmission Line/Transformer commissioned during this month	NIL	
2	Number of major grid disturbance during this month	0	
3	Installed Capacity of the Region (in MW) *	December-16	December-15
	(i) Grid	3496.00	3227.00
	(ii) Isolated	124.00	124.00
	Total (As on 31.12.2016)	3620.00	3351.00
4	Energy Generation in MU (Gross):		
	Thermal/Gas	759.53	703
	Hydel	272.86	221.12
	Solar	0.60	0.5
	Total	1032.99	924.62
5	Demand in MW:		
	Registered Peak Demand	2245	2355
	Peak Demand Met	2223	2320
	Shortage (%age)	1.0	1.5
6	Regional Energy (Gross) in MU:		
	Energy Requirement	1213.53	1156
	Energy Availability	1192.08	1093
	Surplus (+)/Deficit(-) (%age)	-1.8	-5.8
7	Inter Regional Energy Exchange in MU:		
	NER -----> ER	177.63	69.1
	ER -----> NER	36.39	19.3
	NER -----> NR	18.34	0
	NR -----> NER	323.55	333.8
	Net Import	163.97	284
8	Frequency Profile:		
	Average Frequency (Hz)	49.99	50.06
	Average Frequency Variation Index	0.053	-

*The installed capacity of NER as on 01.10.2016 as furnished by the constituents is : Grid = 3362.3MW and isolated is 109.51 MW. Total NER= 3471.81MW

Monthly Power Supply Position

1. Energy Generation In The Region For the Month of December 2016

All figures in MU

Constituents	Hydro		Coal/Oil fired		Gas Based (OC/CC)		Solar		Total (Gen)		Total (Gen)	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net		
	A	B	C	D	E	F	G	H	I	J		
State Sector :												
Assam	19.6				101.40					121		
Meghalaya	24.39									24.39		
Mizoram	3.55									3.55		
Tripura	4.29				53.53					57.82		
Nagaland	5.13									5.13		
Total (S. Sector)	56.96				154.93			0		211.89		
Central Sector :												
NEEPCO:												
Khd+Kop+Kop-II	94.4									94.4		
Kathalguri (AGBPP)					118.6					118.6		
RC Nagar					81					81		
Doyang	8.2									8.2		
Ranganadi	40.4									40.4		
Monarchak					8.4		0.6			9.0		
NHPC:												
Loktak	72.9									72.9		
OTPC:												
Pallatana Gas PP					260.5					260.5		
NTPC:												
BgTPP			136.1							136.1		
Total (C. Sector)	215.9		136.1		468.5		0.6			821.1		
Total NER	272.86		136.1		623.43		0.6			1032.99		

2. Requirement Vs Availability In The Region

STATES	ENERGY requirement (MU) at 50 Hz				POWER requirement (MW) at 50 Hz			
	<i>Availability & L/S at prevailing frequency</i>				<i>Availability & L/S at prevailing frequency</i>			
	Requirement	Availability	Shortfall	% Shortfall	Requirement	Availability	Shortfall	% Shortfall
Ar. Pradesh	65.81	64.68	1.13	1.7	131	129	2	1.2
Assam	662.19	646.38	15.81	2.4	1389	1389	0	0
Manipur	72.83	71.54	1.29	1.8	161	157	4	2.3
Meghalaya	147.56	147.52	0.04	0.0	310	310	0	0
Mizoram	50.8	49.57	1.23	2.5	97	96	1	1.0
Nagaland	69.78	68.55	1.23	1.8	127	127	0	0
Tripura*	144.56	143.84	0.72	0.5	231	231	0	0
REGION	1213.53	1192.08	21.45	1.8	2245	2223	22	1.0

3. Estimation Of Peak Demand (In MW)

Constituents	Peak Demand Met	Date	Freq (Hz)	Estimated Peak Demand at 50 Hz
Arunachal Pradesh	129	16.12.16	50.12	131
Assam	1389	20.12.16	50.18	1388
Manipur	157	15.12.16	50.08	151
Meghalaya	310	23.12.16	50.13	310
Mizoram	96	21.12.16	50.10	97
Nagaland	127	10.12.16	50.00	127
Tripura*	231	18.12.16	50.19	230
REGION	2223	02.12.16	50.07	2245

4. Estimation of Energy Requirement (In MU)

Constituents	Generation	Energy Drawal from Grid		Energy Availability	Actual Requirement
		Schedule	Drawal		
Arunachal Pradesh	0	52.70	64.68	64.68	65.81
Assam	121	503.46	531.03	646.38	662.19
Manipur	0	72.61	71.54	71.54	72.83
Meghalaya	24.39	130.42	123.24	147.52	147.56
Mizoram	3.55	41.37	46.06	49.57	50.8
Nagaland	5.13	56.03	63.42	68.55	69.78
Tripura	57.82	39.81	40.19	143.84	144.56
REGION	211.89	896.40	940.16	1192.08	1213.53

*Tripura(excluding Bangladesh)

Station-Wise Energy Generated (MU) and Peak Generation (MW)

S. No.	Power Stations/Units	Installed Capacity (MW)	Peak Generation (MW)	Energy Generation (MU)	
				Dec-16	Dec-15
(i) STATE SECTOR : HYDRO					
ASSAM : HYDRO					
1	LANGPI U-1	50	51	7.80	11.62
2	LANGPI U-2	50	51	11.80	7.46
TOTAL		100	102	19.60	19.08
MEGHALAYA : HYDRO					
3	UMIAM STAGE - 1 U-1	9	10	0.02	1.63
4	UMIAM STAGE - 1 U-2	9	9	1.25	1.65
5	UMIAM STAGE - 1 U-3	9	9	1.03	1.50
6	UMIAM STAGE - 1 U-4	9	9	1.02	1.75
7	UMIAM STAGE - 2 U-1	10	10	1.34	1.19
8	UMIAM STAGE - 2 U-2	10	10	0.35	2.03
9	UMIAM STAGE - 3 U-1	30	0	0	0
10	UMIAM STAGE - 3 U-2	30	30	6.48	6.06
11	UMIAM STAGE - 4 U-1	30	30	4.02	5.02
12	UMIAM STAGE - 4 U-2	30	30	2.68	4.88
13	UMTRU U-1	3	0	0	
14	UMTRU U-2	3	0	0	
15	UMTRU U-3	3	0	0	
16	UMTRU U-4	3	0	0	
17	MYNTDU-LESHKA U-1	42	42	0.62	6.7
18	MYNTDU-LESHKA U-2	42	35	4.96	0
19	MYNTDU-LESHKA U-3	42	0	0	0.51
20	SONAPANI	2	1	0.61	0.50
TOTAL		316	225	24.39	33.42
NAGALAND : HYDRO					
21	LIKIMRO - 1	8	8	2.06	1.85
22	LIKIMRO - 2	8	8	1.62	1.98
23	LIKIMRO - 3	8	8	1.45	1.47
TOTAL		24	24	5.13	5.30
MIZORAM : HYDRO					
24	SERLUI B U-1	4	4	1.72	0.85
25	SERLUI B U-2	4	4	0.91	0
26	SERLUI B U-3	4	4	0.915	0
TOTAL		12	12	3.55	0.85
TRIPURA : HYDRO					
27	GUMTI - 1	5	0	0	0
28	GUMTI - 2	5	4	2.58	1.46

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29	GUMTI - 3	5	3	1.71	1.52
TOTAL		15	7	4.29	2.97
TOTAL STATE (HYDRO) :					
		467	370	56.96	61.62
Sr. No.	Power Stations/Units	Installed Capacity (MW)	Peak Generation (MW)	Energy Generation (MU)	
				Dec-16	Dec-15
(i) STATE SECTOR : THERMAL/GAS					
MIZORAM : THERMAL					
1	BAIRABI U-1	6	0	0	0
2	BAIRABI U-2	6	0	0	0
3	BAIRABI U-3	6	0	0	0
4	BAIRABI U-4	6	0	0	0
TOTAL		24	0	0	0
TRIPURA : THERMAL					
5	BARAMURA - 1	5			
6	BARAMURA - 2	5			
7	BARAMURA - 3	6.5			
8	BARAMURA - 4	21	22	10.61	11.65
9	BARAMURA - 5	21	22	5.07	11.75
10	ROKHIA - 1	8			
11	ROKHIA - 2	8			
12	ROKHIA - 3	8	0	0	0
13	ROKHIA - 4	8	0	0	0
14	ROKHIA - 5	8	0	0	0
15	ROKHIA - 6	8	0	0	0
16	ROKHIA - 7	21	21	14.48	12.82
17	ROKHIA - 8	21	19	13.17	10.38
18	ROKHIA - 9	21	19	10.20	13.90
TOTAL		169.5	103	53.53	60.50
ASSAM : THERMAL					
19	LTPS - 1	15	0	0	0
20	LTPS - 2	15	15	10.31	1.92
21	LTPS - 3	15	0	0	9.87
22	LTPS - 4	15	16	10.62	9.40
23	LTPS - 5	20	22	14.26	15.89
24	LTPS - 6	20	0	0	13.97
25	LTPS - 7	20	22	14.70	14.29
26	LTPS - 8	37	22	13.90	23.37
27	NTPS - 1	20	20	11.17	12.72
28	NTPS - 2	21	19	3.68	12.31
29	NTPS - 3	21	20	10.69	8.87
30	NTPS - 4	11	7	0	3.16
31	NTPS - 5	24	11	6.81	6.07
32	NTPS - 6	22	10	5.24	7.78
33	DLF	25	0	0.66	0
TOTAL		301	184	101.40	140
TOTAL STATE (THERMAL/GAS) :		494.5	287	154.93	200.5
TOTAL STATE GEN (HY+TH/GAS)		961.5	370	211.89	262.12

S. No.	Power Stations/Units	Installed Capacity (MW)	Peak Generation (MW)	Energy Generation (MU)	
				Dec-16	Dec-15
(ii) CENTRAL SECTOR : HYDRO					
1	KHANDONG - 1	25	25	5.1	2.0
2	KHANDONG - 2	25	26	5.0	2.1
3	KOPILI Stg - II	25	27	0.6	1.8
4	KOPILI - 1	50	48	24.3	6.0
5	KOPILI - 2	50	48	26.3	8.7
6	KOPILI - 3	50	48	16.4	22.9
7	KOPILI - 4	50	43	17.2	13.2
8	DOYANG - 1	25	25	2.9	2.0
9	DOYANG - 2	25	25	2.5	2.0
10	DOYANG - 3	25	25	2.8	1.8
11	LOKTAK - 1	35	37	23.8	26.1
12	LOKTAK - 2	35	37	24.5	26.4
13	LOKTAK - 3	35	36	24.5	0.2
14	RANGANADI - 1	135	138	13.5	14.6
15	RANGANADI - 2	135	138	13.6	15.5
16	RANGANADI - 3	135	138	13.3	14.1
TOTAL CS HYDRO :		860	864	215.9	159.5
(ii) CENTRAL SECTOR : THERMAL/GAS					
1	KATHALGURI - 1	34	33	1.8	21.5
2	KATHALGURI - 2	34	32	22.2	20.8
3	KATHALGURI - 3	34	33	16.2	14.2
4	KATHALGURI - 4	34	35	18.4	18.7
5	KATHALGURI - 5	34	34	12.7	14.2
6	KATHALGURI - 6	34	34	12.7	14.0
7	KATHALGURI - 7	30	32	9.7	17.6
8	KATHALGURI - 8	30	30	14.7	11.3
9	KATHALGURI - 9	30	30	10.2	10.4
10	R.C. NAGAR - 1	21	23	15.5	14.5
11	R.C. NAGAR - 2	21	22	14.3	14.8
12	R.C. NAGAR - 3	21	23	15.0	14.6
13	R.C. NAGAR - 4	21	22	14.4	13.9
14	R.C. NAGAR - 5	23	24	10.5	15.8
15	R.C. NAGAR - 6	23	23	11.5	14.1
16	MONARCHAK SOLAR PV	5		0.6	0.5
17	MONARCHAK - GTG 1	66	72	8.4	40.6
18	MONARCHAK - STG 1				
19	PALLATANA - GTG 1	232	216	80.8	150.9
20	PALLATANA - STG 1	131	121	42.9	81.1
21	PALLATANA - GTG 2	232	230	88.2	0
22	PALLATANA - STG 2	131	122	48.6	0
23	BgTPP - 1	250	251	136.1	0

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24	BgTPP - 2				
25	BgTPP - 3				
TOTAL CS (THERMAL/GAS) :		1471	1442	604.6	503.0
TOTAL CS GEN (HY+TH/GAS)		2331	2306	821.1	662.5
TOTAL NER GEN (HY+TH/GAS)		3292.5	2676	1032.99	924.62

Plant Load Factor (PLF)

PLANT LOAD FACTOR OF THE THERMAL/GAS STATIONS IN N.E.R.					
S. No.	Power Station	State/Constituent	Installed Capacity (MW)	Generation (in MU)	StationwisePLF(%)
1	LTPS*	AEGCL	157.00	63.8	54.47
2	NTPS*	AEGCL	119.00	37.6	41.82
3	Baramura	Tripura	42.00	15.68	52.63
4	Rokhia	Tripura	95.00	37.85	93.65
5	AGBPP	NEEPCO	291.00	118.6	51.82
6	AGTPP	NEEPCO	84.00	81	81.34
7	AGTPP-2	NEEPCO	46.00		
8	Monarchak	NEEPCO	66.00	0.00	0.00
9	Pallatana	OTPC	727.00	260.5	47.91
10	BgTPP	NTPC	250.00	136.1	78.13

*LTPS -- Lakwa Thermal Power Station; *NTPS -- Namrup Thermal Power Station

Voltage Profile

1. Maximum and Minimum Voltage (KV) Of Important Substations

S. No.	NAME of SUB-STATION	MAXIMUM (kV)	MINIMUM (kV)
1	MISA 400 kV	428	392
2	BALIPARA 400 kV	425	386
3	BONGAIGAON 400 kV	420	384
4	RANGANADI 400 kV	432	394
5	PALLATANA 400 kV	426	406
6	SILCHAR 400 kV	423	391
7	BISHWANATH CHARIALI 400 kV	426	386
8	AZARA 400 kV	415	410
9	BgTPP 400 kV	428	392
10	MISA 220 kV	232	213
11	SALAKATI 220 kV	238	216
12	AGBPP 220 kV	235	223
13	MOKOKCHUNG 220 kV	245	217
14	AIZAWL 132 kV	139	119
15	IMPHAL 132 kV	140	120
16	Byrnihat 400kV	427	396
17	Kahilipara 132kV	143	125
18	Nirjuli 132kV	139	124

2. 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	0	66.27	33.73
BALIPARA	0	0	98.80	1.20
BONGAIGAON	0	0	100	0
PALATANA	0	0	74.83	25.17
SILCHAR	0	0	91.42	8.58
Azara	0.07	0	99.93	0
BiswanathCharali	2.22	4.68	15.03	78.07
BgTPP	0	0	0	100.0
Byrnihat	0	0	0	100.0

Inter-Regional Energy Exchange, Major Grid Disturbance and Meetings held by NERPC

1. Inter-Regional Energy Exchange

All Fig. in MU

N E R to E R	177.63
E R to N E R	36.39
NET IMPORT FORM E R	-141.24
N E R to N R	18.34
N R to N E R	323.55
NET IMPORT FROM N R	305.21
NET IMPORT	163.97

2. Major Grid Disturbances:

No Major Grid Disturbance observed during the month.

3. Meetings Held by NERPC:

Sr. No.	Meeting	Date	Venue
1.	31 st CCM Meeting	06.12.2016	Delhi
2.	127 th OCC Meeting	14.12.2016	Guwahati
3.	22 nd Metering Meeting	14.12.2016	Guwahati

Status of Progress

1. Generating Projects in NER

Progress of Thermal Power Generation Projects in NER					
Central Sector					
Sr. No.	Plant	Units	Capacity in MW	Commissioning Schedule	Remarks
1	Bongaingaon NTPC	1st	3x250	Mar-16	<ul style="list-style-type: none"> • BLU done on 29.11.2014 & SB completed on 01.04.2015 • TG Put on Barring on 03.06.15 • Unit Synchronised on 22.06.15 & 'Commissioning-22.06.15 • 72 Hrs Trial Operation for COD done from 23.03.16 to 26.03.16
		2nd		Mar-17	<ul style="list-style-type: none"> • Boiler Hydro Test Apr'12 • TG Erection started on 30.01.16 • Boiler Light Up done on 27.03.16
		3rd		Jul-17	<ul style="list-style-type: none"> • Boiler Drum Lifting Feb'13 & Boiler Hydro test Mar'14 • Next Milestone : Boiler Light Up Nov'16
2	Tripura Gas Based Power Project Monarchak	1	35.58		Steam turbine was synchronized on 14.01.16. COD is delayed to non-availability of gas on a sustainable basis for trial run.
State Sector					
1	Namrup Replacement Power Project APGCL	1st	62.25		
		2nd	36.15		

Progress of Hydro Power Generation Projects in NER					
Central Sector					
Sr. No.	Plant	Units	Capacity in MW	Commissioning Schedule	Remarks
1	Subhansiri Lower (Ar. Pradesh/NHPC)	8	8x250	Syn. Comm: 2016-18	<ol style="list-style-type: none"> 1. Signing of MoU with State Government of Assam 2. Law & Order problem 3. Issue of Downstream Impact Assessment & demand for stoppage of works by anti-dam activists. Since 16.12.2011 work.

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2	Kameng (Ar. P/NEEPCO)	4	4x150	Oct-17	Work in Progress
3	Pare (Ar. P/NEEPCO)	2	2x55	Mar-17	Work in Progress
4	Tuirial (Ar. P/NEEPCO)	2	2x30	Sept-17	Work in Progress
5	Demwe Lower (Ar. P)	6	5x342; 1x40	2016-17	
State Sector					
1	New UmtruMeGPCL	2	2x20	2014-15	Slow progress of civil works.
2	Ganol SHP (MePGCL)	3	3x7.5	Oct-15	LOI issued on 22nd Dec,2012. Work Order is being issued.
3	Lakroh MHP (MePGCL)	1	1.5		Delayed due to rain.
4	Myntriang SHP stg1	2	2x3	Dec-15	
5	Myntriang SHP stg2	2	2x1.5	Aug-14	

2. Transmission Lines In NER

Progress of Transmission Lines in NER									
POWERGRID									
Sr. No.	Name of Lines	Total length in Km	Construction Progress				Target Date		Remarks
			TL (nos)	STC (nos)	TE (nos)	STG (in km)	Schedule	Revised	
1	LILO of (+/-) 800 kV HVDC BiswanathChariyali-Agra at Alipurduar	24	64	64	54	8	Jan-15	Mar-17	Gen.Projectdelayed(ant. In 2017-18).Work under progress.Commissioning matching with HVDC Terminal. ROW issue seriously affected progress.
2	400 kV Kameng-Balipara D/C	110	149	146	133	44	Aug-13	Apr-17	ATS slowed down to the extent possible to match with generation of Kameng. Gen.proj.
3	400 kV Lower Subansiri-BiswanathChariyali D/C I	335	444	329	228	64	Aug-13	Mar-18	Completion matching with Gen.(Sch.uncertain). Works Standstill on account of local disturbance/agitation against big dam.Generation schedule uncertain.

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4	400 kV Lower Subansiri- BiswanathC hariyali D/C II	348	465	327	196	35	Aug-13	Mar-18	Completion matching with Gen. (Sch. uncertain). Works Standstill on account of local disturbance/agitation against big dam. Generations schedule uncertain.
5	400 kV Silchar- Melriat(New) D/C (Charged at 132 kV)	286	456	373	243	112	Dec-12	Sep-17	Major portion of line in forest. severe ROW in vicinity of Aizawl town due to stiff resistance from influential local owner. Package re-awarded in Jun'16.
6	132 kV Aizawl (PG) - Zemabawk at Melriat (PG)	30	16	0	0	0	Dec-12	Jun-17	Package re-awarded in Jun'16. Work commenced.
7	LILO of 132 kV Zemabawk - W.Phaileng at	5	0	0	0	0		Dec-13	
8	132 kV Pasighat- Roing S/C	102	348	345	345	103	Dec-12	Mar-17	Readiness of up & downstream system being implemented by Arunachal Pradesh Govt. Critical for commissioning of line. Damage tower/foundation being taken up for rectification/recasting.
9	132 kV Tezu- Roing S/C	73	244	244	235	61	Apr-12	Mar-17	Progress affected due to severe ROW Problem.
10	132 kV Tezu- Namsai S/C	96	332	320	286	61	Dec-12	Jun-17	Progress affected due to severe ROW Problem.
TSECL									
11	132 kV Monarchak- Surajmani Nagar D/C	42	150	49	38	6		Sep-16	Work in Progress
12	132 kV Surjyamani Nagar- Badarghat D/C	6		0	0	0		Aug-16	Fund proposed in World Bank.

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13	132 kV Surjyamani Nagar(TSECL)-Rokhia DC	20	80	32	5	0		Dec-14	3.598 km line in forest land for which TSECL will supply for forest clearance. LOA issued.
14	132 kV Surjyamani Nagar-Udaipur D/C	50	50	0	0	0		Jun-15	Proposed under NEC.
15	132 kV Gamai Tilla - Dhalabil	31	107	101	78	17		Sep-13	ROW problems affected the work
16	132 kV P K Bari - Kanchanpur	47	113	109	99	17		Mar-15	All works completed in non forestland. Stage I clearance received and compliance for conditions completed.
MePTCL									
17	132 kV Rongkhon-Ampati D/C	33	102	101	98	19		Mar-17	No issues of forest clearance and no court cases. Work is currently under progress.
18	132 kV New Umtru-Norbong(EPI P II) S/C	2	8	8	8	2		Mar-17	No issues of forest clearance. The 132 kV line works have been completed except for the terminal equipments at Umtru HEP (to be done by MePGCL) and at EPIP-II sub-station. Tower erected is 8/8 locations. Stringing completed - 1.71 km.
MeECL									
19	LILO of 132 kV Mawlai-Cherrapunje at Mawngap	10	16	15	15	5		Dec-16	Work held up due to ROW problem. The PHED, GOME has complained and filed and FIR against Loc No. 3 to 8. Overall status is 90% completed.
20	LILO of 132 kV NEIGRIHMS - Khliehriat at Lad Nongkrem	6	7	6	6	0		Mar-17	No issues on Forest Clearance. Detail survey & check survey (1.6 km) for the 132 kV LILO is completed.
21	LILO of 132 kV Rongkhon - Ampati at Praharinagar	20	30	0	0	0		Sep-18	Survey works for 132 kV LILO is completed.

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22	132 kV Killing (Byrnihat) - EPIP I	17	19	19	19	22		Oct-16	Work 98% completed on 11.02.2016 except at the tapping point.	
Mizoram										
23	132 kV Melriat (New) - Sihhmui	12	23	0	0	0		Dec-12	Jun-17	Stage-I forest clearance awaited. Package re-award in Jun'16.
AEGCL										
24	BTPS - Rangia D/C line	326.374	517	513	508	198.422		Mar'13	June'17	1. Overall 89% completed. A. All normal foundation completed. B. 5 nos. of Pile foundation completed.
25	LILO of one Ckt. of Samaguri - Sarusajai D/C line at Sonapur sub-station	26.624	41	41	26			Dec'13	June'17	Water logging & harvesting are reasons to be attributed for delaying.
26	Agia - Matia (Dudhnoi) S/C line on D/C tower	23.5	87	87	87	23.5		Nov'13		Test charged on 29.06.2016
27	132 kV DC Sonapur-Jagiroad Tr. Line.	51.75	86	45	35			Nov'13	June'17	Compensation Issue.
28	132 kV DC Sonapur-Chandrapur Tr. Line	28.438	51	45	29			Nov'13	June'17	Railway X'ing/ ROW/ Compensation issue.

Commercial Status

1. Entitlement, Schedule, Drawal and DSM Charges for the month of December 2016

Name of states	Entitlement from ISGS in NER (in MU)	Entitlement from ISGS in ER (in MU)	Total Entitlement (in MU)	Scheduled energy against entitlement (in MU)	Schedule Drawal (for Dev A/c) (Ex-PP State) (in MU)	Actual Drawal from Grid (in MU)	Over Drawal (+) / Under Drawal (-) (in MU)	Dev Payable (-) / Receivable (+) (including additional deviation) (Rs. In Cr)
Arunachal Pradesh	44.46	3.76	48.22	46.98	52.70	64.68	11.98	-2.7088
ASEB	372.8	100.99	473.79	458.01	503.46	531.03	27.57	-6.3591
Manipur	84.0	0	84.0	69.52	72.61	71.54	-1.07	-0.0426
MeSEB	91.52	0	91.52	60.72	130.42	123.24	-7.18	1.3163
Mizoram	38.39	2.77	41.16	39.56	41.37	46.06	4.69	-1.2372
Nagaland	42.79	8.34	51.13	46.64	56.03	63.42	7.39	-1.7134
Tripura	119.91	0	119.91	103.87	39.81	40.19	0.38	-0.4726
PGCIL-HVDC	1.74	0	1.74	0.77	0.77	0.53	-0.24	0.0540

(Source: PSP, NERPC)

* In addition to total entitlement, bilateral exchanges and purchase/sell through traders/exchange are covered in Annexure-III.

2. Schedule for ISGS Generation for the month of December 2016

ISGS	Schedule (MWH)	Injection (MWH)
LOKTAK HEP	70203	71088.9
KHANDONG HEP	9590.89	94809.86
KOPILI - I HEP	80507.61	
KOPILI - II HEP	542.76	
DHEP	7594.21	8164.33

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RHEP	39125.2	39967.3
AGTCCPP	76706.87	80236.53
AGBPP	109394.57	114999.03
OTPC, PALLATANA	132240.15	134784.13
BgTPP	777154.1	506538.17

Source: Final PSP for the month of December 2016.

3. Cumulative Wt. Average Share Allocation (%) (Up to this month) in CS Stations

States	Kopili (200 MW)	Kopili-II (25 MW)	Khandong (50 MW)	RHEP (405 MW)	DHEP (75 MW)	AGBPP (291 MW)	AGTCCPP (130 MW)	BgTPP (250 MW)	OTPC (726.6 MW)	Loktak HEP (105 MW)
Arunachal Pradesh	5.191	5.992	4.194	18.462	6.852	5.694	6.702	5.1325	3.0303	4.940
Assam	53.455	52.355	56.285	43.328	43.808	56.503	43.720	57.420	33.058	29.445
Manipur	7.395	6.945	6.555	8.373	7.865	8.105	8.225	7.505	5.7851	42.508
Meghalaya	17.395	13.675	16.905	11.505	11.455	11.815	12.633	10.980	10.882	0.000
Mizoram	4.610	6.040	3.940	5.700	5.250	5.410	6.0	5.415	3.0303	5.020
Nagaland	6.147	5.735	6.653	5.335	17.967	5.805	5.737	4.930	3.7190	6.435
Tripura	5.807	9.258	5.468	7.297	6.803	6.668	16.983	7.6175	26.9972	11.652
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.995	86.5019	100.00

4. Share Allocation (%) in CS Stations from Eastern Region

States	Farakka-I	Kahelgaon-I	Kahelgaon-II	Talcher	Farakka-III
Assam	2.455737%	2.104847%	5.093479%	2.095419%	0.000000%
Meghalaya	0.000000%	0.000000%	0.000000%	0.000000%	0.000000%
Nagaland	0.429803%	0.424446%	0.000000%	0.424823%	0.000000%
Arunachal Pradesh	0.191917%	0.191747%	0.000000%	0.196898%	0.000000%
Mizoram	0.141736%	0.141610%	0.000000%	0.141736%	0.000000%
Assam (NVVN Coal Power)	0.091912%	0.091912%	0.091912%	0.091912%	0.091912%

5. Details of Fixed and Energy Charges of CS Stations for FY 2015-16

Projects	Installed Capacity (MW)	Design Energy (GWh)	Annual Fixed Charge (Crore)	Reference
KOPII HEP	200	1186.14	109.8446	As per CERC order dated 13.01.2016 in petition No 46/GT/2015.
KOPII – II	25	86.30	13.2283	As per CERC order dated 23.01.2012 in pet. No 298/2009

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KHANDONG HEP	50	277.61	40.3627	As per CERC order dated 13.01.2016 in petition No 42/GT/2015.
RHEP	405	1509.69	260.4693	As per CERC order dated 05.01.2016 and corrigendum 07.03.2016 in petition No.40/GT/ 2015.
DHEP	75	227.24	101.5605	As per CERC order dated 13.01.2016 and corrigendum dtd. 07.03.16 in petition No 43/GT/ 2015.
AGBPP	291	NA	296.5691	As per CERC order dated 15.02.2016 in Pet. No 459/GT/ 2014& 41/GT/2015. Base Rate of energy Charge as per the CERC Order
AGTPP	84	NA	71.7633	As per CERC order dated 11.03.2011 in Pet.No299/2009,^Base Energy charge as per CERC order
LOKTAK HEP	105	448.00	107.1660	As per CERC order dated 22.10.2012 in RP No. 24/2011 in Pet.No 108/2010
PALLATANA	726.6	NA	763.9771	As per CERC order dated 17.06.2015 in Pet. No 129/GT/2015
BgTPP	250	NA	NA	

Regional Transmission Account (RTA) for the month of December 2016

Name of DIC	Demand/ Injection Zone	PoC Charges	Reliability Support Charges	HVDC Charges	Total
Arunachal Pradesh	Arunachal Pradesh	23989922.83	4101169.60	1131340.38	29222432.81
ASEB	Assam	364111697.49	28161990.02	7768709.78	400042397.28
Manipur	Manipur	34615881.89	4924372.42	1358427.45	40898681.76
MeECL	Meghalaya	82518307.39	6382326.54	1760615.73	90661249.65
Mizoram	Mizoram	34611156.40	2676978.10	738465.78	38026600.28
Nagaland	Nagaland	43591790.54	3371579.60	930077.15	47893447.28
Tripura	Tripura	27481242.51	7875020.27	2172387.21	37528649.99
HVDC BNC	Assam	744789.50	57605.28	15890.88	818285.65

Grid Disturbance Report

List of Important Grid Disturbances in N E Regional Grid during December 2016

1. At 15:33 Hr on 20.12.16, 132 kV AGTPP-Kumarghat, 132 kV Baramura-Jirania line & 132 kV Palatana-Surjamaninagar line tripped. It was restored at 18:49 hrs. Outage duration: 3:16 hrs. Load Loss: 168MW. Category- GD-II. Due to tripping of these elements, Tripura System (except Northern part) including Bangladesh load (68 MW), AGTPP system, Monarchak system and Rokhia system was separated from rest of NER Grid. Due to tripping of 132 kV Agartala-Surajmaninagar I, there was disturbance in Bangladesh. AGTPP Unit I & II, Rokhia Unit 7 & 8 was serving load of around 85 MW. Islanded portion was synchronised through 132 kV Baramura- Jirania Line at 1611 Hrs. 132 kV Bus coupler at Palatana was also tripped during the disturbance.

Annexures and Exhibits

A-1

Major Reservoirs Level of The Month

	FRL (mtr.)	MDDL (mtr.)	Dec 2016	Dec 2015
			Level in mtr/ft	Level in mtr/ft
KHANDONG	719.3	704	713.6	713.3
KOPILI	609.5	592.83	603.1	599.4
LOKTAK	768.5	766.2	768.3	768
BARAPANI	3220 ft	3150 ft	3183.9	3207.6
GUMTI	93.55	83.6	91.5	91.8
DOYANG	333	306	318.5	313.0

A-2

Frequency Analysis For The Month of December 2016

Frequency	Freq. (in Hz.)	Date (D.M.Y)
1. Maximum Frequency	50.31	27.12.2016
2. Minimum Frequency	49.67	12.12.2016
3. Monthly Average	49.99	

Frequency in Hz as %age of Time for the Blocks

f < 49.90	49.90 < f < 50.05	f > 50.05
11.22	69.55	19.26

Daily Frequency Variation Index (FVI):

Date	FVI	Date	FVI
01-12-2016	0.055	17-12-2016	0.052
02-12-2016	0.076	18-12-2016	0.052
03-12-2016	0.049	19-12-2016	0.037
04-12-2016	0.047	20-12-2016	0.045
05-12-2016	0.045	21-12-2016	0.045
06-12-2016	0.058	22-12-2016	0.039
07-12-2016	0.059	23-12-2016	0.047
08-12-2016	0.052	24-12-2016	0.042
09-12-2016	0.050	25-12-2016	0.046
10-12-2016	0.052	26-12-2016	0.069
11-12-2016	0.045	27-12-2016	0.054
12-12-2016	0.068	28-12-2016	0.037
13-12-2016	0.049	29-12-2016	0.044
14-12-2016	0.074	30-12-2016	0.074
15-12-2016	0.053	31-12-2016	0.062
16-12-2016	0.053		

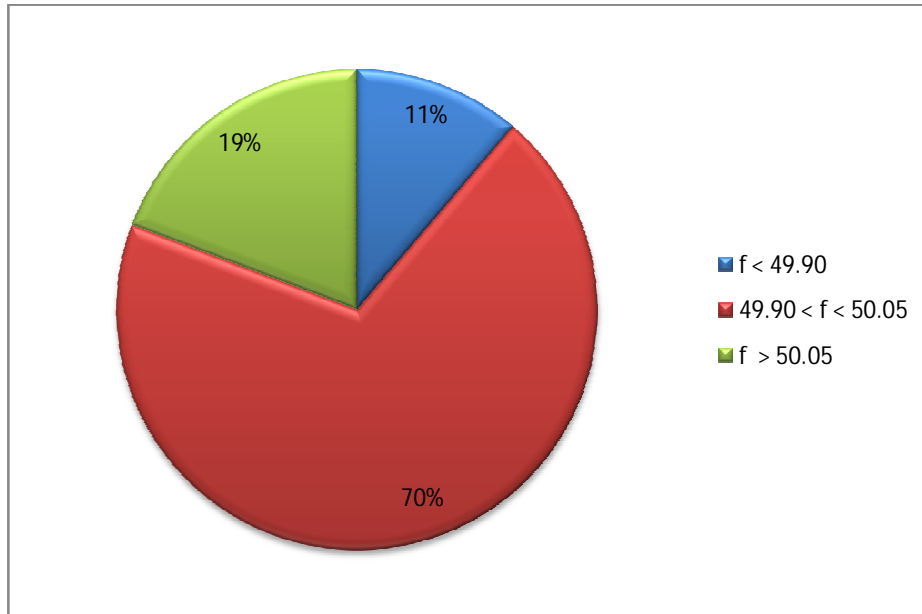
A-3

Consolidated Scheduled Bilateral Exchanges in NE Region during December 2016

Name of Trader	Energy at NER periphery (in MWH)
MPPL	55823.2775
APPCPL	15500.00
GMRETL	811.98
PTC	22320.00
TPTL	11040.00
OTPC	33333.75

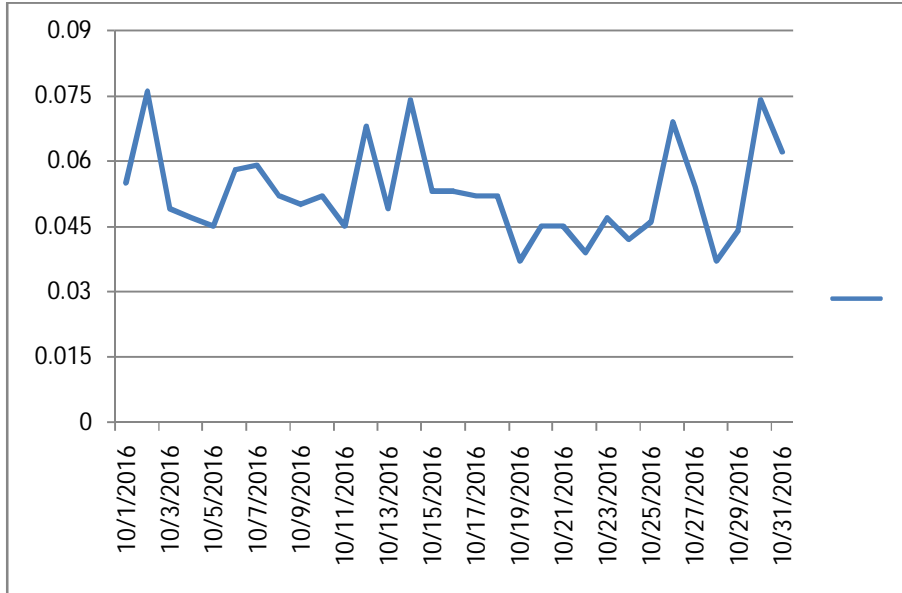
B-1

Frequency Duration for December 2016



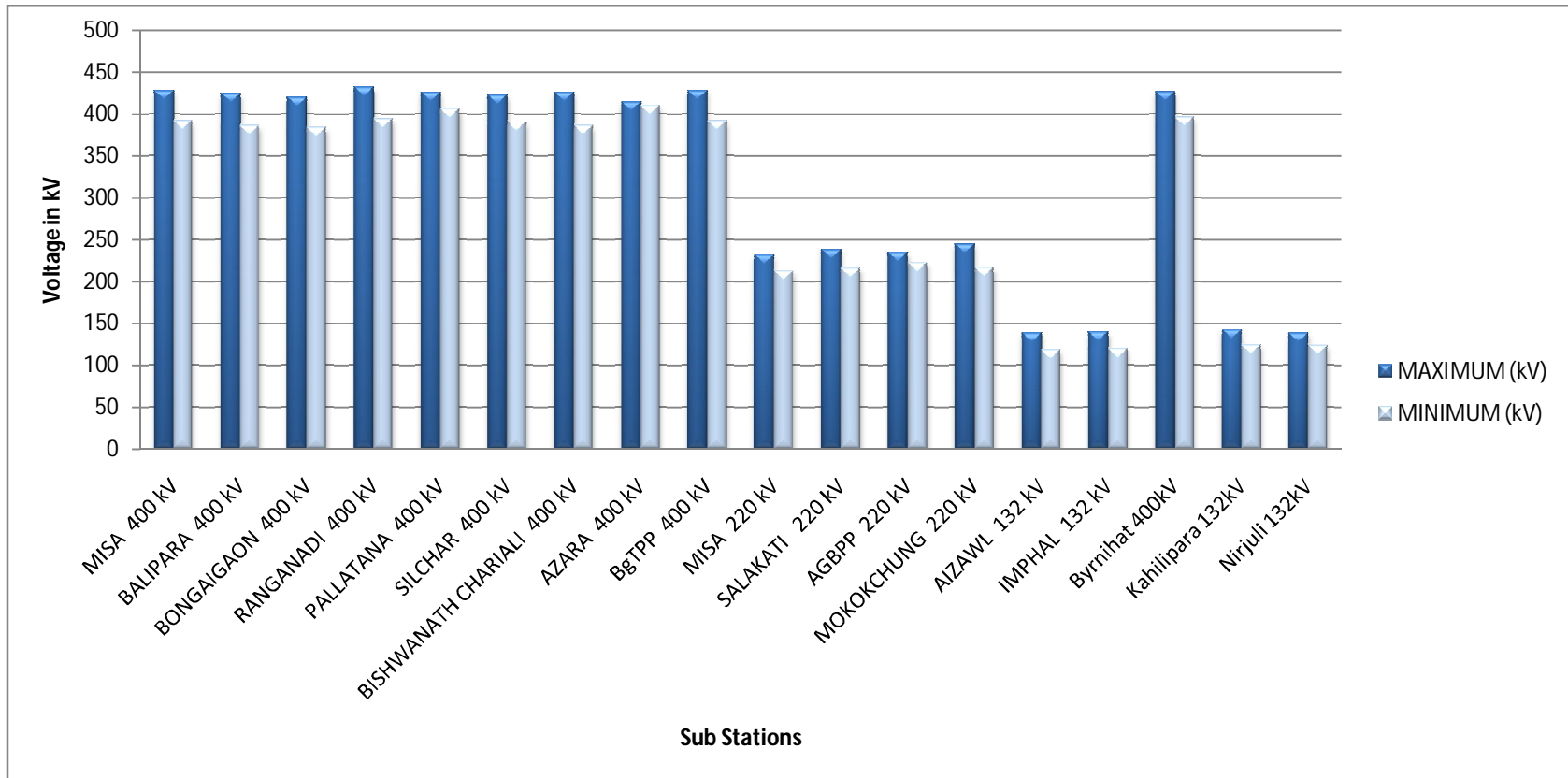
B- 2

FVI Characteristic for December 2016



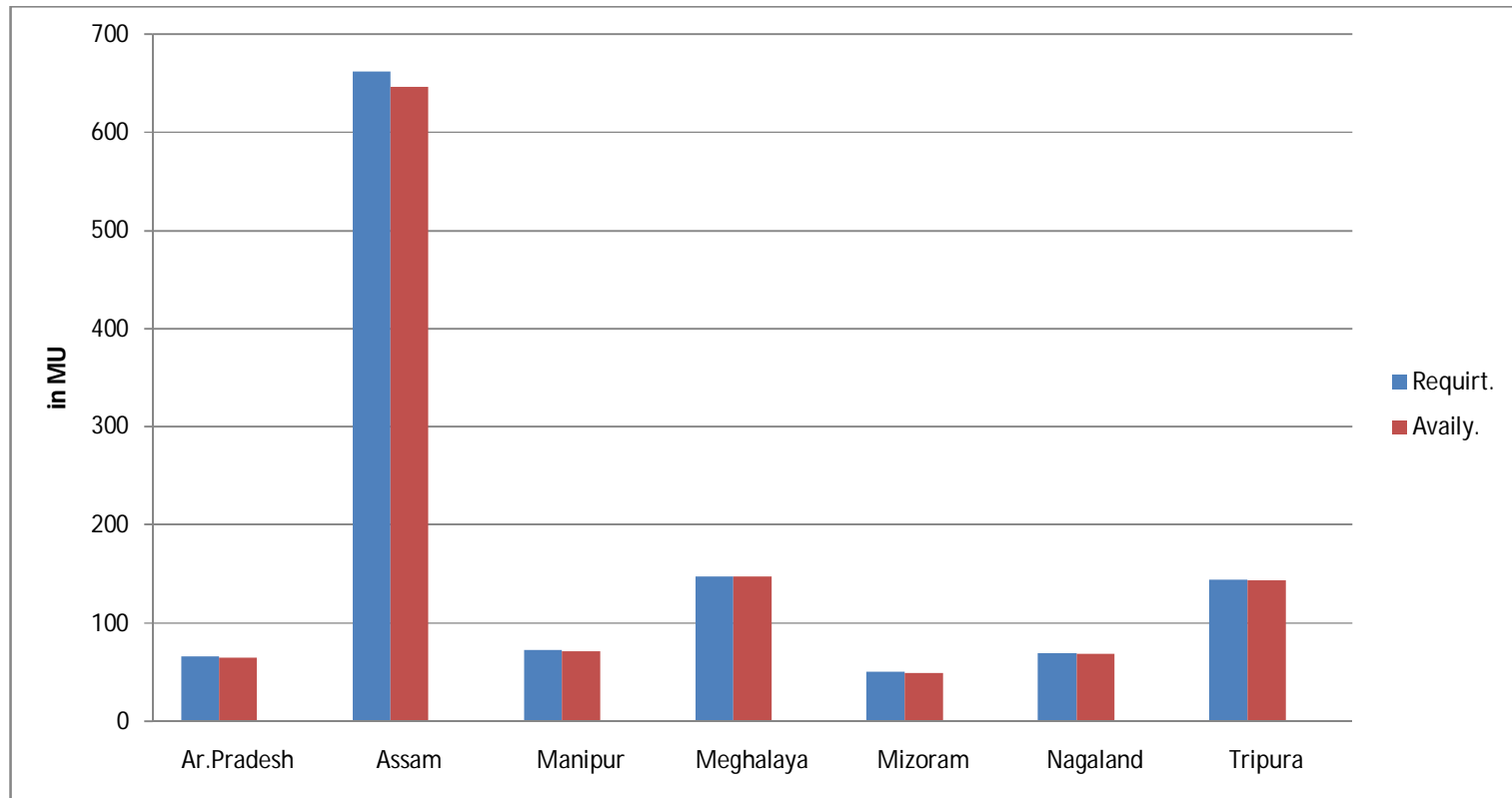
B-3

Voltage Variation Range for December 2016



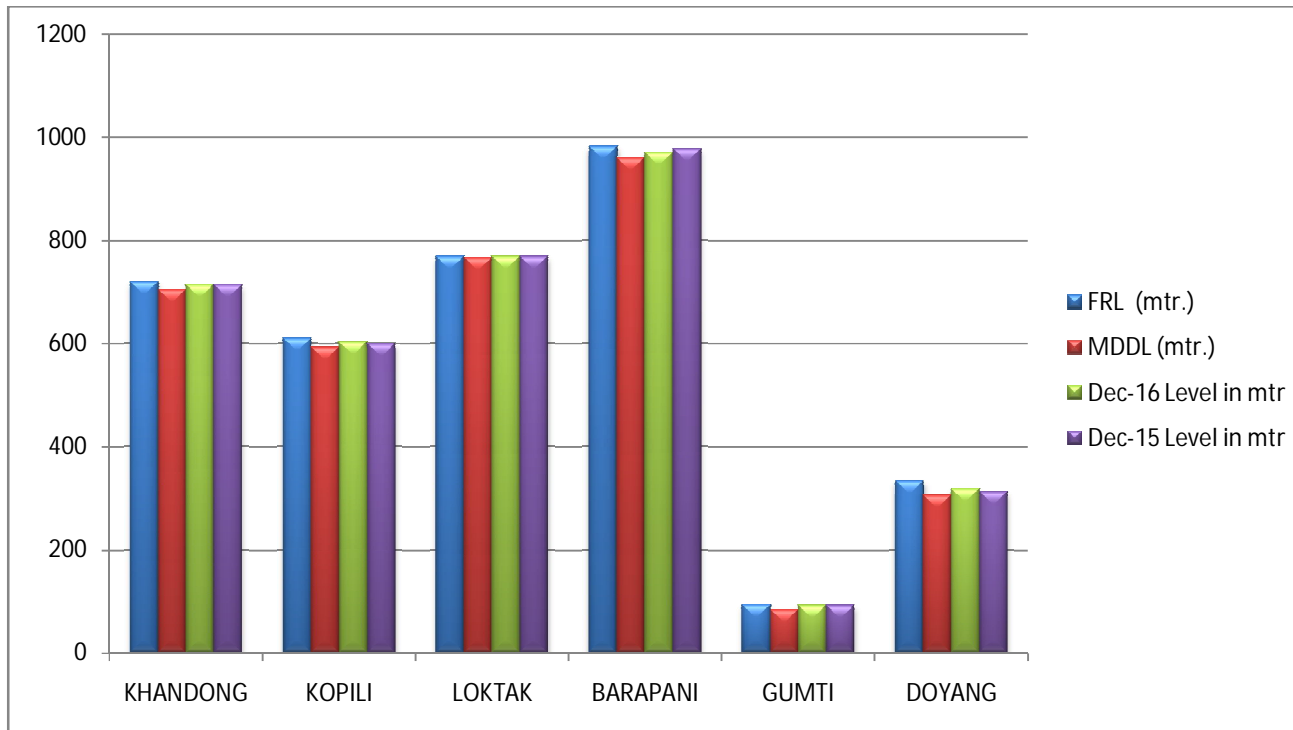
B-4

Energy Profile for December 2016



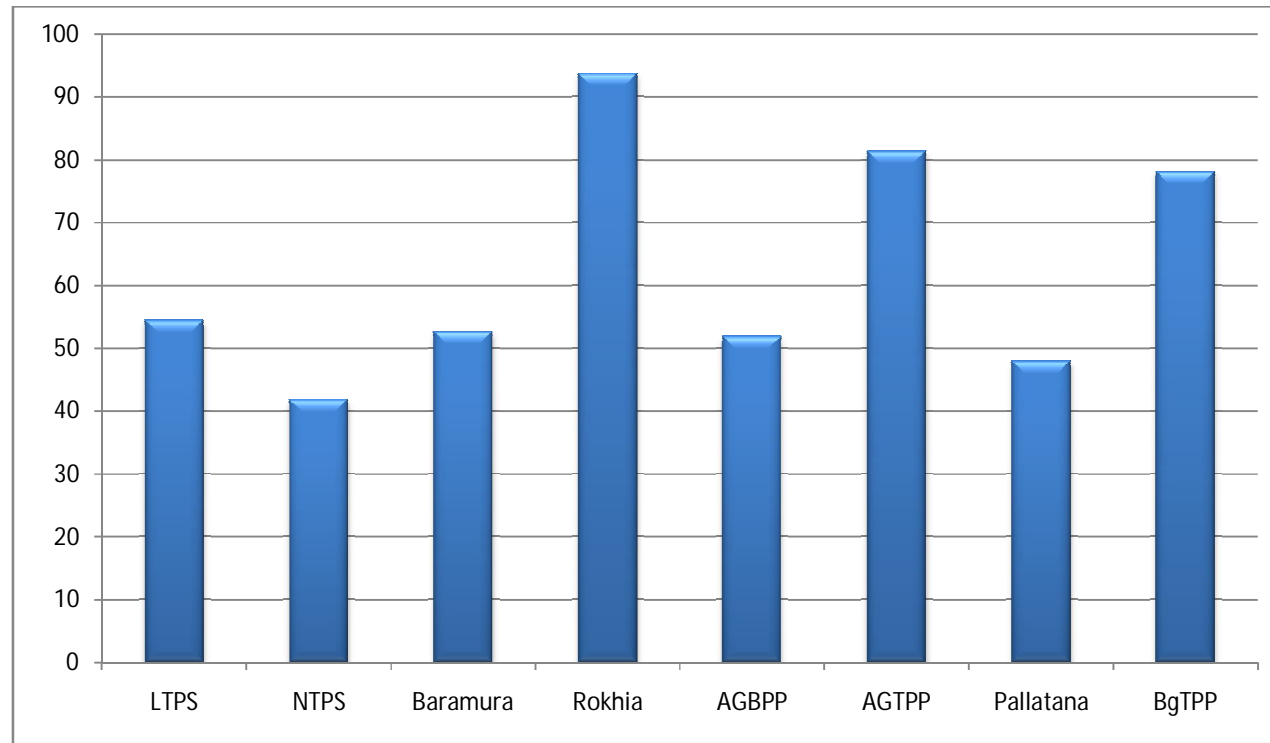
B-5

Reservoir Profile for December 2016



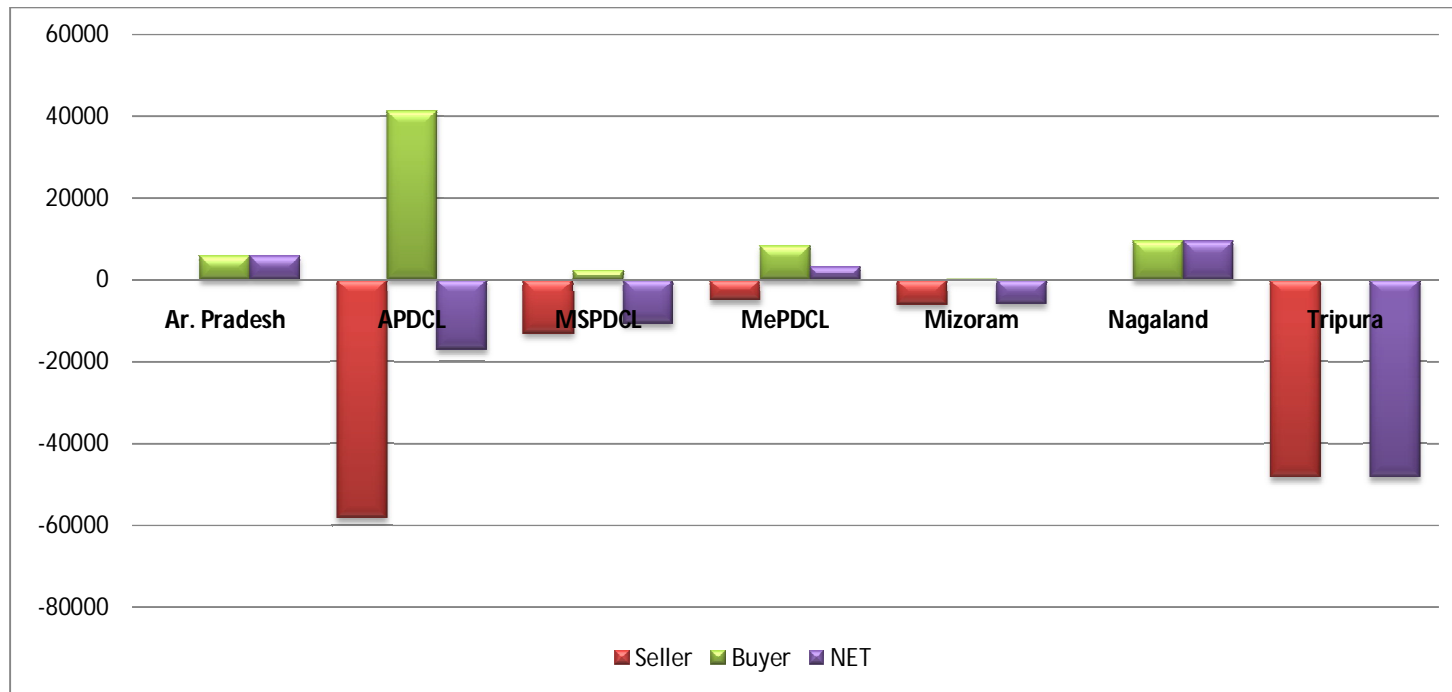
B-6

Station-wise Plant Load Factor for December 2016



B-7

Collective Transaction through IEX Power Exchange December 2016



B-8

Consolidated SEB in NE Region for the month of December 2016

