

North Eastern Regional Power Committee

MINUTES OF THE 61st

OPERATION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date: 08/04/2011 (Friday)

Time: 10:30 hrs

Venue: "Hotel Rajmahal," Guwahati.

The List of Participants in the 61st OCC Meeting is attached at **Annexure - I**

Shri Y. Surjamani Singh, Manager, NHPC welcomed all the delegates to the 61st OCC meeting. He thanked NERPC for giving them the opportunity to host the 61st OCC meeting at Guwahati. He also thanked delegates from CPRI, Bangalore who were also present during the meeting.

Shri B.K. Jain, Member Secretary, NERPC also welcomed all the participants of the 61st OCC. He briefed about the grid performance during the month of March, 2011 and stated that grid parameters are within IEGC band and requested all the constituents to follow the same in future. He also welcomed the CPRI officers and stated that CPRI is one of the premiere institution in power sector and their participation in the meeting is appreciated as they have come all the way from Bangalore. Member Secretary requested CPRI to give their presentation on mobile testing of equipments and other research facilities before taking up the formal agenda item of OCC.

Dr. P.V. Balasubramanyam, Additional Director General, CPRI thanked NERPC for giving the opportunity to attend the meeting. CPRI made a presentation on research, testing and training facilities available at CPRI CPRI offered to conduct specialized training courses for engineers of power utilities in North Eastern Region and also conduct onsite testing of instrument transformers.

Member Secretary stated that most of the NER constituents are facing man power shortage and conducting training programmes outside NER for long duration would be difficult. He requested CPRI to conduct the residential training courses (two weeks programme) in NER in collaboration with IIT Guwahati or NPTI, Guwahati and during training they can visit CPRI laboratory at Bangalore.

ADG, CPRI informed that they will work out the training programme in collaboration with either IIT or NPTI, Guwahati for duration of two weeks (residential course) and the same would be intimated to NERPC.

The gist of presentation by CPRI is enclosed at **Annexure – II**.

He then requested Shri P.D. Siwal, S.E (O) NERPC to take up the agenda for discussion.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 60th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

SE, NERPC mentioned that the minutes of the 60th meeting of the OCC held on 11th March, 2011 at Shillong were circulated to all the concerned, vide letter no. NERPC/AS/OCC/2010/4111 – 4143 dated 18th March, 2011.

As no comments were received from any of the constituents, the minutes of the 60th OCC Meeting was confirmed.

SE, NERPC requested NERLDC to give their presentation about the grid performance during the month of March, 2011.

ITEMS FOR DISCUSSION

B.1 OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING Mar' 11

The grid performance parameters for the month of March, 2011 as presented by NERLDC during the meeting are given below:

- i) **Average frequency** during March, 2011 was 49.86 Hz, as compared to 49.88 Hz in February, 2011.
- ii) **Minimum frequency** in March, 2011 was 49.00 Hz (24.03.11 at 22:32 hrs) compared to 49.08 Hz in the previous month.
- iii) **Maximum frequency** was 50.64 Hz (10.03.11 at 18:03 hrs), as compared to 50.67 Hz in February, 2011.

- iv) **System frequency** remained within permissible range of 49.5 Hz to 50.2 Hz for 94.21 % of the time, below 49.5 Hz for 3.37 % and above 50.2 Hz for 2.42% of the time as compared to 88.91 %, 4.42 % and 6.67 % of the time respectively in the previous month.
- v) **Regional peak** demand in March, 2011 was 1670 MW as compared to 1665 MW in February, 2011 an increase of 0.27 % over the previous month.
- vi) **Energy requirement** was 828.67 MUs in March, 2011 compared to 765.80 MUs in February, 2011 an increase of 8.21 % over the previous month.
- vii) **Regional energy availability** in March, 2011 was 775.73 MUs compared to 723.03 MUs in the previous month, a decrease of 7.29 % over the previous month.
- viii) **Rise in demand met** was recorded in Tripura (17.07%), Nagaland (4.30%) & Assam (3.64%) over the previous month.
- ix) **Drop in demand met** was recorded in Meghalaya (15.14%), Manipur (8.65%), Mizoram (5.71%) & Ar. Pradesh (4.94%) over the previous month viz. February, 2011.
- x) **Over Voltages** at 400 kV substations were observed at Misa, Bongaigaon and Balipara where maximum voltage observed were 432 kV, 429 kV and 428 kV respectively.
- xi) **No over Voltages** were observed at 220 kV S/S and 132 kV S/S.
- xii) **No Under Voltages** were observed at 400 kV, 220 kV S/S. However under voltage was observed at 132 kV, Aizawl S/S were 114 kV.
- xiii) **Regional Generation & Inter-regional Exchanges:** During the month of March, 2011 compared to February, 2011 are given below:

SN	Parameter	March, 2011	February, 2011
REGIONAL GENERATION & INTER - REGIONAL EXCHANGES (in MU)			
1	Total Generation in NER (Gross)	607.026	569.777
2	Total Central Sector Generation in NER (Gross)	374.597	346.440
3	Inter-Regional Energy Exchanges		
	(a) NER - ER	0.82	0.00
	(b) ER - NER	185.19	169.20
	(c) Net Import	184.37	169.20

The Sub-committee noted as above.

FOLLOW UP ACTION

C. 1. Non-functioning of SCADA in Arunachal Pradesh state

E.E, Ar. Pradesh informed that they have already placed Order for procurement of modems and the same has not been received by them. The status would be intimated in the next OCC meeting.

The Sub-committee noted as above.

C. 2 Status of 132 KV Kopili – Khandong 2nd Ckt.

POWERGRID informed that the file is presently with nodal officer, Forest Dept. Govt. of Assam and they will forward it to Regional office of Ministry of Environmental & Forest, Shillong. The final clearance is expected to be received soon. The status would be reviewed in the next OCC meeting.

The sub-Committee noted as above.

C. 3 Installation of Line Reactor at Kathalguri end of Misa – Kathalguri line:

Sr. Manager, NEEPCO informed that the revised cost estimate which was received on 10.03.2011 from POWERGRID has been put up to the Management for concurrence. He informed that the status would be intimated in the next OCC.

The Sub-committee noted as above.

C. 4 Revival of 132 KV P.K. Bari- Dullavcherra - Panchgram link between Assam & Tripura:

CGM, AEGCL informed that new breaker has to be installed at Panchgram S/S and this may take one week for installation. Moreover due to ongoing Assembly election in the state, synchronization could not be carried out by Assam. He informed that after the election is over they will co-ordinate for synchronization of the line. He further stated that at present the line is used for radial load only as there was a phase sequence problem and the line could not be synchronized as reported by site engineer of Panchgram.

AGM, NERLDC suggested that it would be better for Assam to shift the load of Panchgram to Dullavcherra side till Dullavcherra – Panchgram link is synchronized.

Member Secretary requested Assam to install the CB at the earliest and also Assam should avail the opportunity to synchronize the above link during the installation of the CB. He requested Assam to shift the load of Panchgram to Dullavcherra side as suggested by AGM, NERLDC till synchronization of the link..

CGM, AEGCL informed that they will take up the matter with site engineer of Panchgram for shifting of the load of Panchgram as proposed and the same would be intimated in the next OCC meeting.

C. 5 Restoration of Carrier tripping relay at Ranganadi end:

Sr. Manager, NEEPCO & Mgr. POWERGRID informed that they have fixed a schedule for joint inspection during April, 2011 and the same would be completed during April, 2011 and the status would be intimated in the next OCC meeting.

The Sub-committee noted as above.

C. 6 Special Protection Scheme for N.E. Region:

Mgr. POWERGRID informed that they have visited the site on 14.03.2011 and they have tested the existing PLCC panels at Imphal and Loktak. During testing both end panels were found defective and since the panels were obsolete there is no support for spares and service. Thus, with the existing PLCC panels, the proposed Special Protection Scheme cannot be implemented. Further, he stated that new panels have to be procured to make the SPS operationalize. Procuring of new panels may take time and installation will be completed by December, 2011.

The Sub-committee noted as above.

C. 7 Transfer facility in Bus Bar arrangement:

CGM, LD&C, Assam informed that the installation work at Mariani & Samaguri have been completed in all respect. However, clearance from electrical inspectorate, Govt. of Assam has not been received. Once the electrical clearance is obtained the work would be commissioned.

The Sub-committee noted as above.

C. 8 Multiple problems with new L&T meter & software (VINPLUS):

Mgr. POWERGRID informed that L&T engineer have visited Imphal & Loktak on 14.03.2011 along with compatible software and downloading the data to DCDs has

been solved. However, data downloading from various meters through RS485 port was found non-functioning though the same is functioning well with DCD. L&T engineers have assured to revert back with solution by 2nd week of April, 2011. The status would be intimated in the next OCC meeting.

The Sub-committee noted as above.

C. 9 Single-Phase Auto-Reclosure of Transmission Lines:

The status of SPAR as reviewed during the 60th OCC meeting is given below:

Sr. No.	Name of the Line	Ownership	Status as given on 61 st OCC meeting.
1	400kV Balipara - Ranganadi I&II	RHEP, NEEPCO	NEEPCO & PGCIL informed that joint inspection has been fixed on 15.04.2011. The status will be reviewed in the next OCC.
2	220kV Kopili - Misa # I & II	KHEP, NEEPCO	NEEPCO will procure the CBs under R&M Scheme and implement within six months
3	220kV Salakati – BTPS - I & II	BTPS, AEGCL	Assam informed that the work is in progress and the same will be completed by May, 2011.
4	220kV Balipara - Samaguri	Samaguri, AEGCL	Assam informed that work at Samaguri will take atleast one year.
5	132kV Aizawl - Zemabawk	Zemabawk, P&E, Mizoram	No representative from Mizoram. status could not be updated.
6	132kV Khandong - Haflong	KHEP, NEEPCO	NEEPCO will procure the CBs under R&M Scheme and implement within six months
7	132kV Khandong - Kopili	KHEP, NEEPCO	NEEPCO will procure the CBs under R&M Scheme and implement within six months
8	132kV Loktak - Imphal # II	Loktak, NHPC	Materials would be dispatched in 2 lots from factory and work will be completed within one year.
9	132kV Ranganadi- Ziro	RHEP, NEEPCO	NEEPCO insisted that breakers are only 6 years old and it would not be viable to replace the breakers. MS, NERPC stated that SPAR is very important for minimum interruption and NEEPCO should find means to replace the breakers as agreed in the 10 th RPC meeting. He asked Arunachal Pradesh to explore the possibility of utilizing the breaker of NEEPCO in their system as the same could be procured by them at a depreciated cost. Ar. Pradesh agreed to the proposal. Member Secretary requested Ar. Pradesh to prepare a concrete proposal and put up in TCC/RPC.

The Sub-committee noted as above.

C. 10 Installation of two main numerical distance protection scheme:

Sr. Mgr, NEEPCO informed that they approval from competent authority has been received and placement of order for equipments is in progress and the same would be intimated in the next OCC meeting.

The Sub-committee noted as above.

C. 11 Deputation of site engineer by PGCIL at Kopili for SCADA system:

Sr. Mgr. NEEPCO suggested that POWERGRID should either permanently depute operator at Kopili or handover the operation of line to NEEPCO for which POWERGRID may train site engineers of NEEPCO. Further he informed that the system installed at Kopili site was not user friendly to operate and relay indication was also not displayed due to PC problem.

Mgr. PGCIL informed that ABB engineers would visit the site soon and rectify the problem of relay and PC. He also stated that they will train NEEPCO engineers after rectifying the problem.

The Sub-committee noted as above.

C. 12 Switchable Reactor at Balipara S/S:

Mgr. POWERGRID has intimated the current status of installation of two nos. of 400 KV SF6 CBs for switching Ranganadi line reactors of circuits I&II at Balipara S/S as below:

- a) CB supply : Completed.
- b) CB panel supply : expected by 30th April, 2011.
- c) Final commission : June, 2011.

The Sub-committee noted as above.

D. NEW ITEMS

D. 1 TEE connection from 132 KV Balipara – Khupi Transmission Line:

E.E, Ar. Pradesh informed that a joint inspection by NEEPCO, POWERGRID along with Dept. of Power has already been conducted on 24th February, 2011. Ar. Pradesh has requested to allow for shutdown of 132 KV Balipara – Khupi transmission line for TEE connection from 132 KV Balipara – Khupi – Kimi T/L of NEEPCO at Tippi.

Member Secretary enquired if the above line has been approved by RPC.

E.E, Ar. Pradesh informed that this line is owned by NEEPCO and originally as per a tripartite agreement between POWERGRID, NEEPCO & Dept. of Power, Govt. of Ar. Pradesh it was agreed to LILO the line Tippi. Now, instead of LILO arrangement Ar. Pradesh want to have a T connection.

Member Secretary stated that since the decision of LILO was a tripartite agreement, without reference to NERPC the same should be resolved between the three parties. Further, he suggested that proposal for T-Connection by Ar. Pradesh is not advisable and requested Ar. Pradesh to abide by the original decision of 2002 i.e. LILO connection instead of the now proposed T-connection. However, in case of any difficulty the matter may be brought to TCC/RPC meetings. Ar. Pradesh agreed.

The Sub-committee noted as above.

D. 2 State-wise anticipated peak demand/requirement, shortage for April, May & June, 2011.

The sub-Committee reviewed the anticipated "peak demand availability" and finalized the same for the months of for the months of March, April & May, 2011.

April, 2011

May, 2011

June, 2011

S.No.	State	Peak Demand (MW)	Peak Availability (MW)	Peak Demand (MW)	Peak Availability (MW)	Peak Demand (MW)	Peak Availability (MW)
1	Ar. Pradesh	95	90	90	90	90	85
2	Assam	950	800	930	800	950	850
3	Manipur	100	80	85	85	85	80
4	Meghalaya	260	215	220	215	230	200
5	Mizoram	70	60	70	55	75	55
6	Nagaland	100	85	100	85	100	80
7	Tripura	175	150	165	150	165	140
	Region	1750	1480	1660	1480	1695	1490

***The availability of above States is subjected to the instruction of NERLDC.**

D. 3 Generation Planning (ongoing and planned outages)

NEEPCO/NHPC has indicated the availability for hydro stations as below:

Khandong –	0.375 MU
Kopilli –	3.552 MU
Ranganadi -	depending on inflow of water
Doyang –	0.156 MU
Loktak –	0.816 MU

NHPC has proposed to take total shutdown of Loktak Power station from 1st May, 2011 to 15th June, 2011 (i.e. for a period of one and half month) for repairing of Draft tube gate (D.T. gate) & under water structure.

Further NHPC has intimated that the Loktak Unit#1 which was under shutdown for R&M works would be commissioned in the month of April, 2011.

Member Secretary requested NERLDC to give a presentation on the impact of Loktak outage to constituents especially to Manipur.

DGM, NERLDC gave a presentation by considering **nil** generation at Loktak HEP and projected power requirement of Manipur during peak and off peak period. The presentation is enclosed at **Annexure – D.3**.

ACE, Manipur enquired whether the complete switchyard of Loktak S/S will also be taken out of service.

Mgr. NHPC replied that Loktak switchyard will not be taken out of service and moreover Loktak – Imphal line will still be in service during the complete shutdown of Loktak HEP.

Member Secretary stated that this is a good time to take shutdown of hydro station before the onset of monsoon and NHPC should complete the work within the stipulated schedule.

ACE, Manipur requested that Nagaland should co-operate with Manipur to draw power through Kohima- Karong line.

DGM, NERLDC also stated that that the LILO work at Dimapur has been completed and more power could be fed through Kohima – Karong line.

Nagaland agreed and assured that full co-operation would be extended to Manipur to draw power through Kohima – Karong line.

Member Secretary suggested that if other states could surrender their some unallocated share in favour of Manipur during the complete shutdown period of Loktak HEP to help Manipur it would help Manipur to overcome the power shortage to some extent and also take care of their commercial interests. He opined that the best option is to give the unallocated share (which is 12 MW) from R.C. Nagar GBS to Manipur during peak hours. In this regard NERPC Secretariat will write a letter to all the constituents to give their consent for giving their unallocated share in RC Nagar GBS to Manipur during peak hours during the shutdown of Loktak HEP.

It was decided to grant complete shutdown of Loktak HEP w.e.f. 1st May, 2011 to 15th June, 2011 (for 45 days). If NHPC wants to prepone the shutdown they should intimate prior in advance to NERLDC. During the shutdown Manipur will draw additional power from Kohima - Karong line. The sub-Committee reviewed the anticipated "peak availability" and finalized the same for the period of shutdown of Loktak station [Annex -I]

D. 4 Outage Planning Transmission elements

The Sub-committee **discussed and approved** the programme of transmission line outages for April, 2011 as proposed by POWERGRID. The same is enclosed at **Annexure D. 4.**

The Sub-committee noted as above.

D. 5 Estimated Transmission Availability Certificate (TAC) for the month of February, 2011.

The Final TAC certified by NERPC for the month of February, 2011 has been issued vide letter No: NERPC/OP/TAC/2010/29 dated 12.04.2011 is **99.8918%**.

The Estimated Transmission/System Availability for the month of March, 2011 furnished by PGCIL is **99.9180 %** as per details at **Annexure D. 5 (Copy of the same is also available at NERPC website)**. NER constituents are requested to kindly give their comments and observations, if any, by 28th April, 2011 so that Final TAC for the month of March, 2011 can be issued.

The sub-Committee noted as above.

D. 6 Major grid disturbances in the previous month (March, 2011)

There was no major grid disturbance during the month of March, 2011.

The Sub-Committee noted as above.

D. 7 Any other item

i). CGM, AEGCL informed that whenever Me.ECL draws power from Sarusajai they should inform to SLDC at least half an hour in advance to prepare sudden overloading of transformers. Me. ECL agreed.

The sub-Committee noted as above.

ii). Member Secretary informed that LGBR for 2011 – 12 has been prepared by NERPC Secretariat and the abstract of the same was circulated during the meeting. He requested to give their comments within one week time before finalization. If no comments were received during the stipulated time the LGBR for 2011 -12 will be treated as final.

The sub-Committee noted as above.

iii). CGM, AEGCL enquired from NERLDC about the hand tripping of 132kV Badarpur – Panchgram line on 04.04.2011 which happened to be an Assembly Election date in Assam.

DGM, NERLDC explained that one of the two lines between Khandong & Khlieriat(PG) tripped causing overloading of the healthy line . In order to avoid cascade tripping, which might cause havoc in 132 KV pocket, they had to reduce the quantum of power in the above line. For this NERLDC had requested Mizoram, Tripura & Meghalaya to reduce their drawal during this time but Mizoram did not respond and response from Tripura & Meghalaya were not adequate which led to hand tripping at Panchgram line for a very short period for greater interest of saving the grid from collapse which would cause power interruption in entire South Assam and other states within 132 kV pocket for longer duration.

AGM, NERLDC stated that Assam should have intimated the area where election was going on so that the preventive measure would be taken care.

CGM, AEGCL informed that the next phase of election would be held on 11.04.2011 and the areas would be communicated to them for taking necessary preventive measure.

The sub-Committee noted as above.

iv). AGM, NERLDC informed that VSAT communication has to be installed in Mizoram, Ar. Pradesh, Nagaland & Manipur and these constituents have to pay a nominal fee to BSNL for using the VSAT.

Member Secretary stated that since it involves financial matter he requested NERLDC to put up the agenda item in RPC for approval.

The sub-Committee noted as above.

D. 8 Date & Venue of next OCC meeting

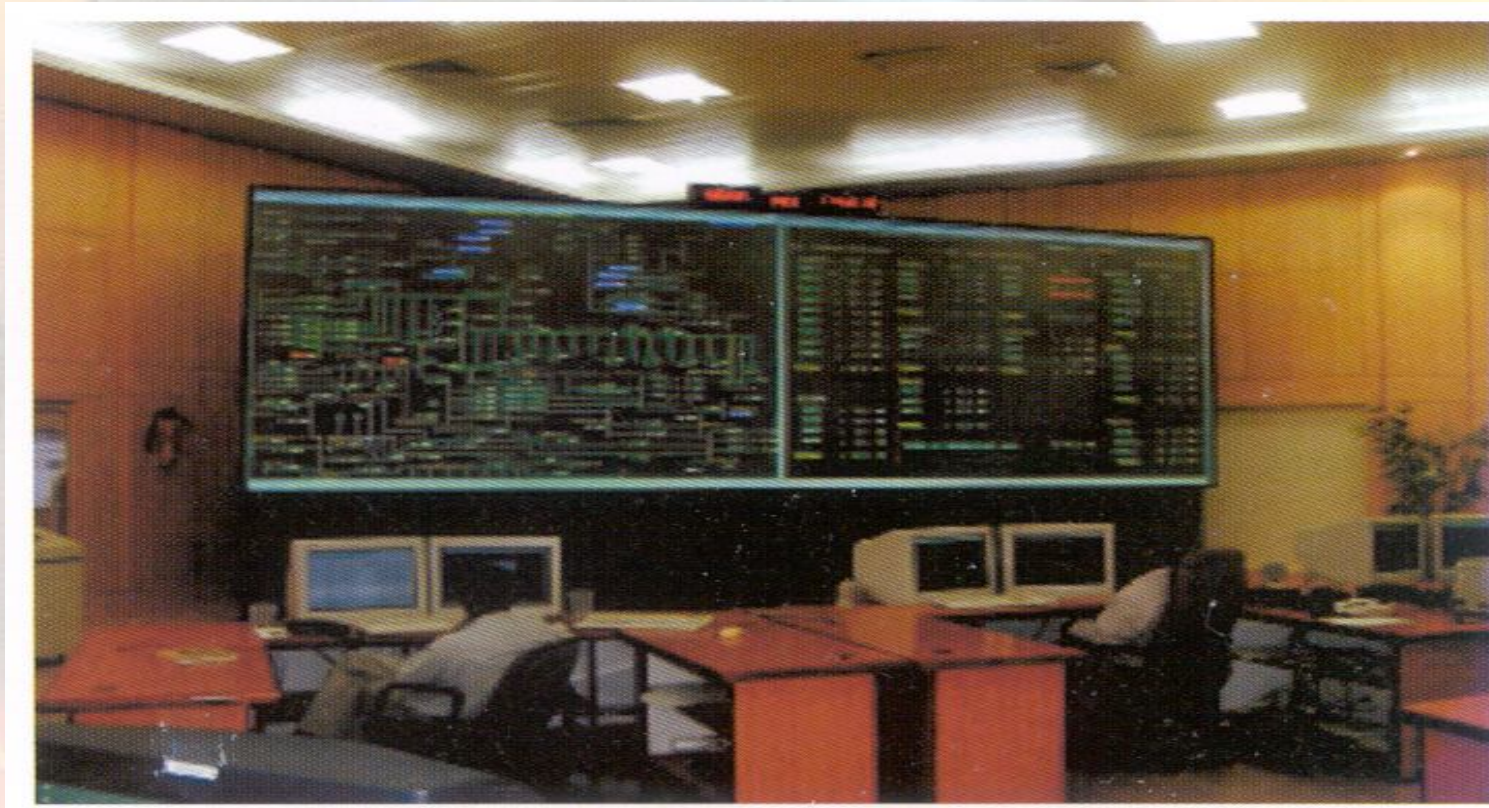
It is proposed to hold the 62nd OCC meeting of NERPC on 13th May, 2011 (Friday). As per roster AR. Pradesh will be the host for the above meeting. The venue of meeting will be intimated in due course.

List of Participants in the 61st OCC meeting held on 08/04/2011

Sl. No	Name & Designation	Organization	Contact No.
1.	Sh. W. Rehman, E.E, SLDC	Ar. Pradesh	09436050735
2.	Sh. G. K. Das, CGM, LD&C	Assam	09435085129
3.	Sh. K.K. Das, DGM, LD&C	Assam	
4.	Sh. A.K. Saikia AGM, LD&C	Assam	09864116176
5.	Sh. A. Kharpan, SE, SLDC,	Meghalaya	09436117802
6.	Sh. F.E. Kharshiing, EE, SLDC,	Meghalaya	09863066906
7.	No Representative	Mizoram	
8.	Sh. L. Priyokumar, ACE, (P)	Manipur	09436033197
9.	Sh. Ng. Birjit Singh, SE	Manipur	09436065214
10.	Sh. B Longkumer, EE, SLDC,	Nagaland	09436004642
11.	Smt. Shampa Sen, Mgr, SLDC,	Tripura	09436120263
12.	Sh. T.S. Singh, AGM	NERLDC	09436302717
13.	Sh. N.R. Paul, DGM	NERLDC	09436302723
14.	Sh Anupam Kumar, Sr. AE.	NERLDC	09436335379
15.	Sh. H. Talukdar, Mgr.	NERTS	09436335237
16.	Sh. Bhaskar Goswami, Sr. Mgr	NEEPCO	09436163983
17.	Sh. Y. Surjamani Singh, Mgr.	NHPC	09436894857
18.	Dr. P.V. Balasubramanyam, ADG	CPRI, Bangalore	09448282326
19.	Dr. P.V. Reddy, Jt. Dir. (training)	CPRI, Bangalore	
20.	Sh. S. Suhas, Jt. Dir. (Marketing)	CPRI, Bangalore	
21.	Sh. R.A. Deshpande, Jt. Dir. (PS)	CPRI, Bangalore	
22.	Sh. Maiti, Jt.Dir	RTL, Kolkata	
23.	Sh. M. Chakravorty, EOL	RTL, Guwahati	
24.	Sh. B.K. Jain, Member Secretary	NERPC	09436706436
25.	Sh. P.D. Siwal S.E (O)	NERPC	09436998378
26.	Sh.B. Lyngkhai, AS	NERPC	09436163419
27.	Sh. D.K. Bawri, AEE	NERPC	09863317236

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POWER SCENARIO DURING LOKTAK S/D



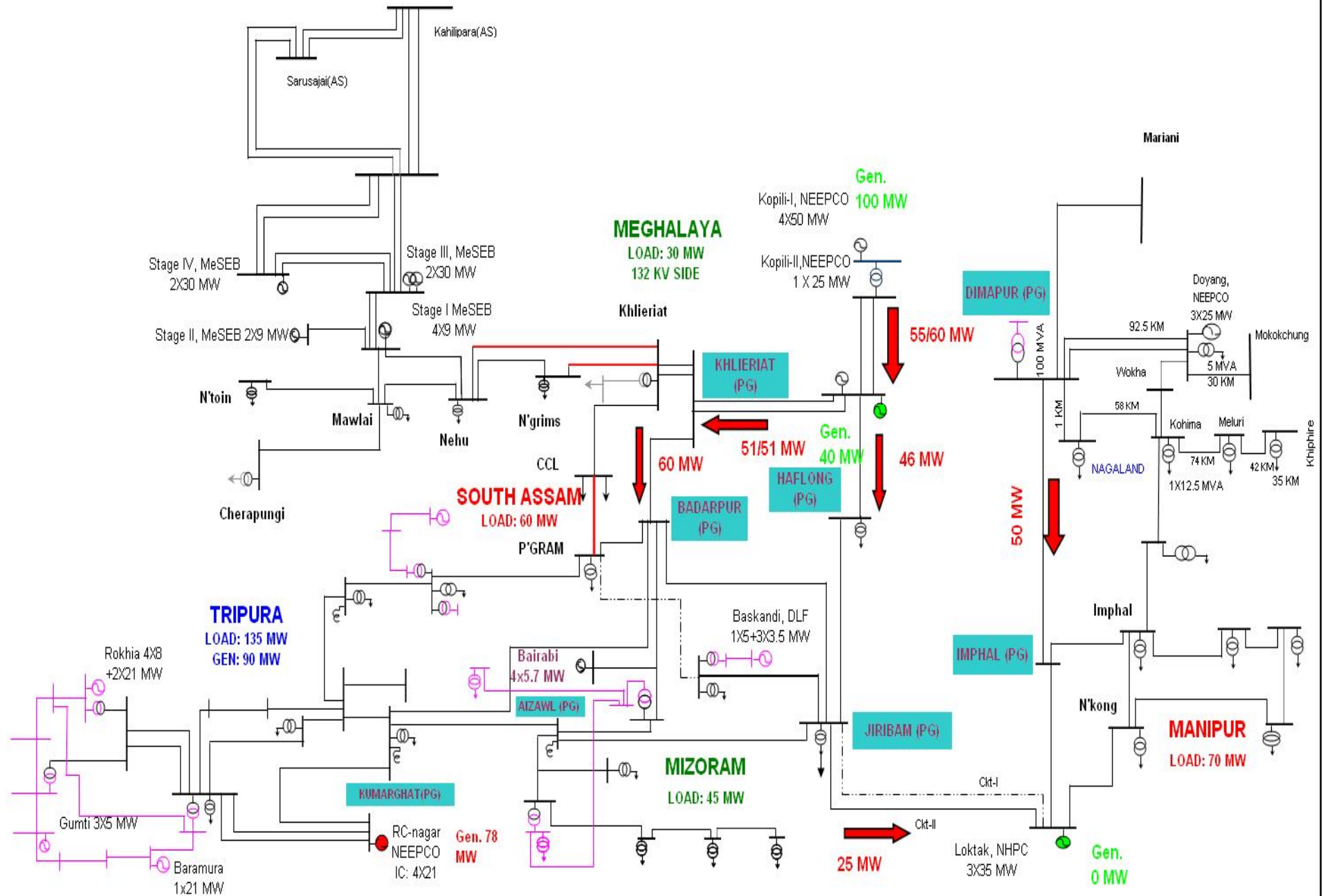
NERLDC

CASE – PEAK HOURS.

2 M/Cs ON BAR AT KHANDONG

132 KV POCKET LOAD	
S.ASSAM	60
MANIPUR	70
MEGHALAYA	30
MIZORAM	50
TRIPURA	140
132 KV POCKET GENERATION	
KOPILI	100
KHANDONG	40
AGTPP	78
LOKTAK	0
TRIPURA	90
132 KV POCKET LINE LOADINGS	
LOKTAK-JIRIBAM	25
DIMAPUR-IMPHAL	50
KHANDONG-KHLT D/C	51/51
KHLT-B'PUR	60
KOPILI-KHANDONG D/C	55/60
KHANDONG-HAFLONG	46

NORTH EASTERN REGIONAL GRID 132 KV POCKET

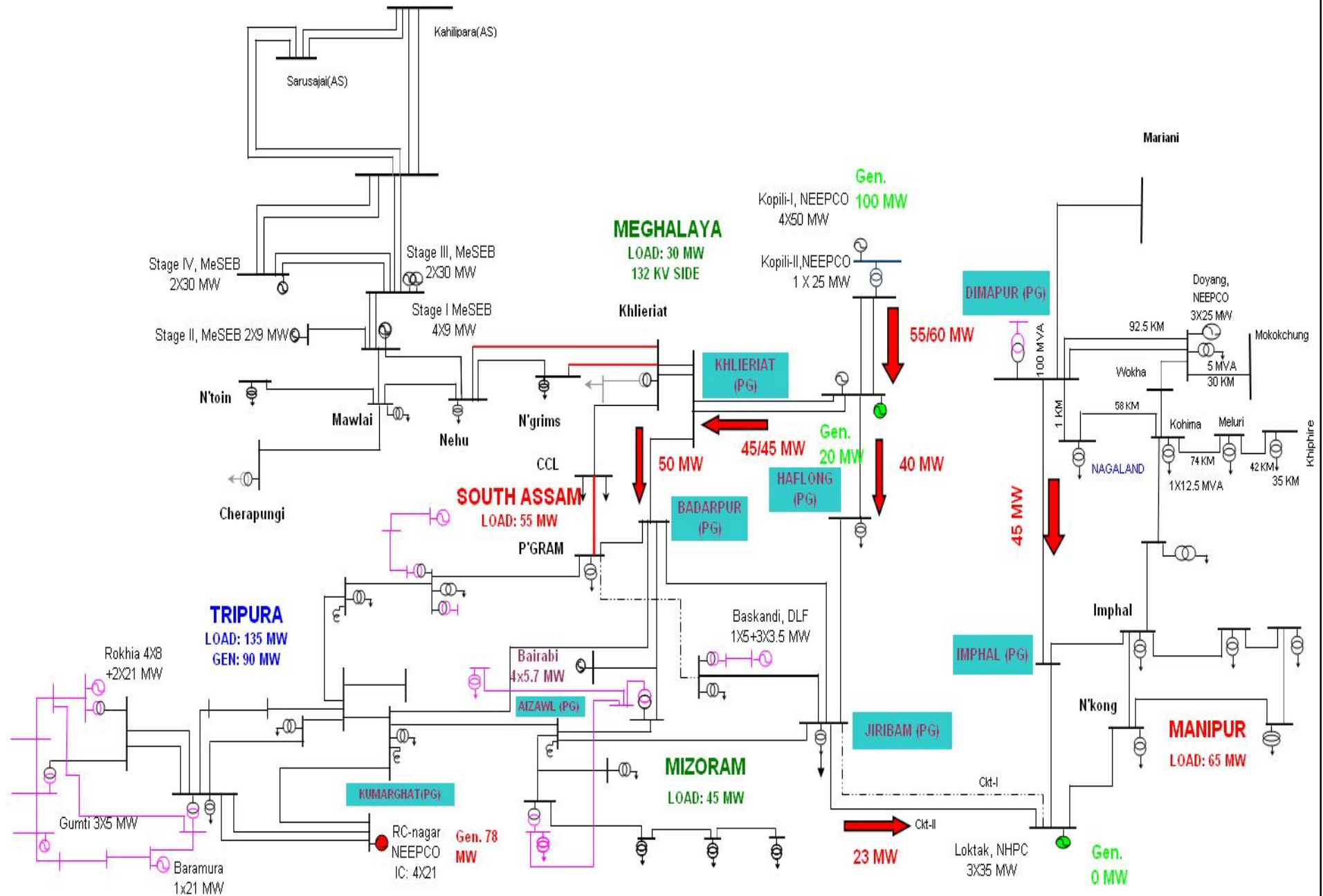


CASE – PEAK HOURS.

1 M/C ON BAR AT KHANDONG

132 KV POCKET LOAD	
S.ASSAM	55
MANIPUR	65
MEGHALAYA	30
MIZORAM	45
TRIPURA	135
132 KV POCKET GENERATION	
KOPILI	100
KHANDONG	20
AGTPP	78
LOKTAK	0
TRIPURA	90
132 KV POCKET LINE LOADINGS	
LOKTAK-JIRIBAM	23
DIMAPUR-IMPHAL	45
KHANDONG-KHLT D/C	45/45
KHLT-B'PUR	50
KOPILI-KHANDONG D/C	55/60
KHANDONG-HAFLONG	40

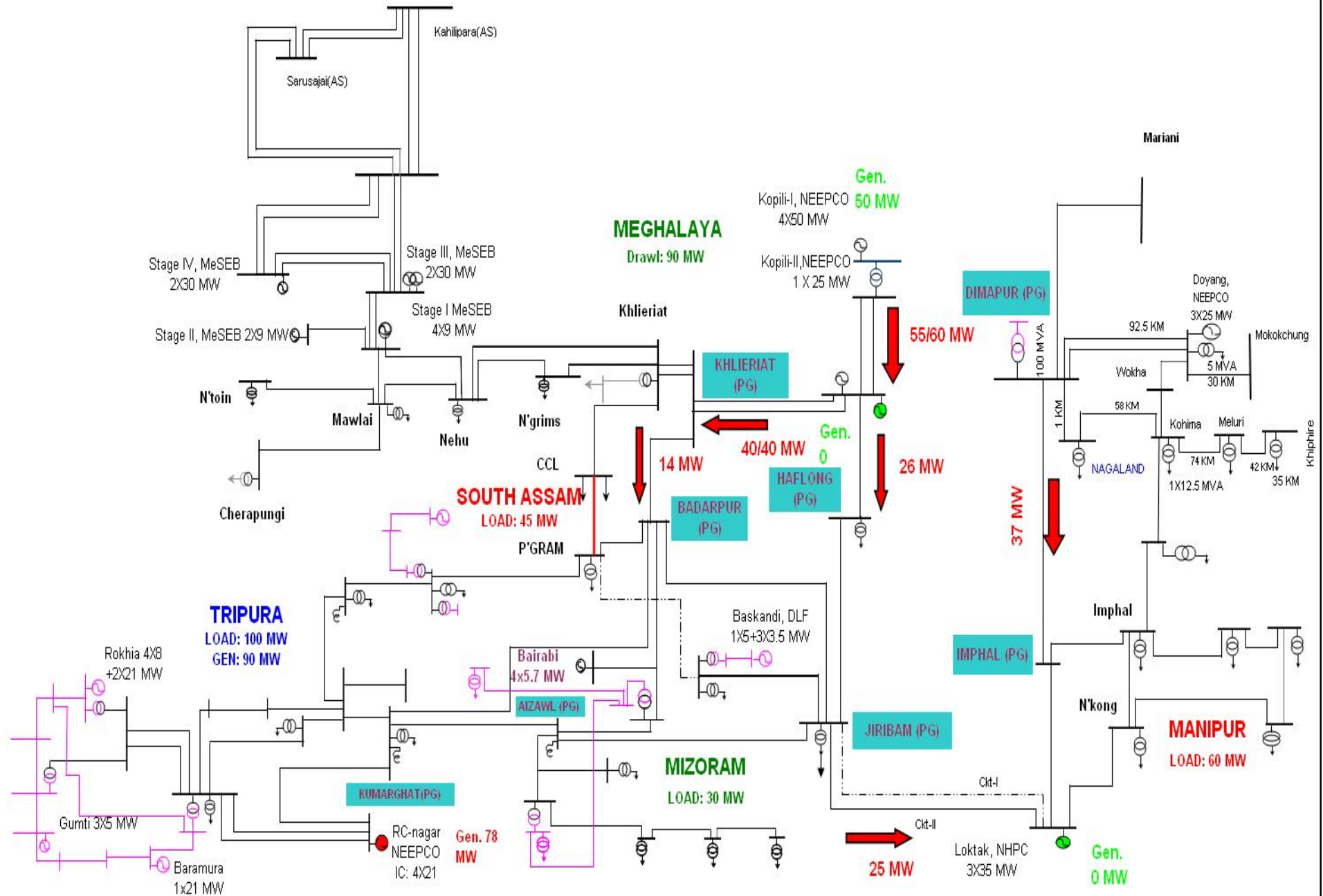
NORTH EASTERN REGIONAL GRID 132 KV POCKET

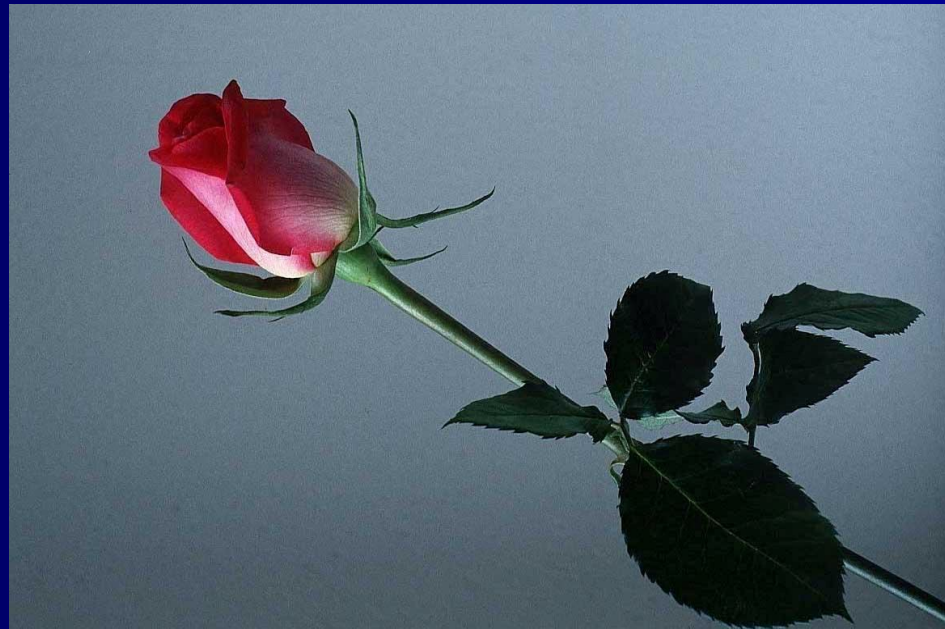


OFF-PEAK CASE.

132 KV POCKET LOAD	
S.ASSAM	45
MANIPUR	60
MEGHALAYA	90
MIZORAM	30
TRIPURA	100
132 KV POCKET GENERATION	
KOPILI	50
KHANDONG	0
AGTPP	78
LOKTAK	0
TRIPURA	90
132 KV POCKET LINE LOADINGS	
LOKTAK-JIRIBAM	25
DIMAPUR-IMPHAL	37
KHANDONG-KHLT D/C	40/40
KHLT-B'PUR	14
KOPILI-KHANDONG D/C	55/60
KHANDONG-HAFLONG	26

NORTH EASTERN REGIONAL GRID 132 KV POCKET





Thank You