

Northern Regional Power Committee
18-A, Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi-110016.

No. NRPC/SE (O)/USMG/23/2009

Dated 11.05.09

Subject: Minutes of 23rd Meeting of ULDC Scheme Monitoring Group (USMG).

Summary record of discussions of the 23rd meeting of **ULDC Scheme Monitoring Group (USMG)** held on 27th April, 2009 is available on NRPC's Website at www.nrpc.gov.in.

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All members of USMG

Sl. No.	Organization	Names of Officers & Designation S/Shri
1.	BBMB	Director (PR)
2.	DTL	GM (SLDC); DGM (SLDC);
3.	HVPNL	SE/PPM, HPGCL, Panchkula, / SE (SLDC) Panipat; EE, Panipat
4.	HPSEB	SE (SLDC)
5.	J&K	CE (C&S), Jammu;
6.	PSEB	CE (SLDC); DD (SLDC)
7.	RRVPNL	CE (C&LD); EE (SLDC)
8.	UPPTCL	GM(US), Fax:0522-2287880 , DGM, 220 kV Agra, Fax 0562 2605465
9.	PTCUL	DGM (LD), EE (T&C), Roorkee-Fax No. 01332-265767
10.	UJVNL	General Manager-GV
11.	PowerGrid, NR-I	GM (O&M); Chief Manager
12.	THDC	AGM, (Electrical Design), Pragatipuram, Rishikesh.
13.	PowerGrid, NR-II	DGM
14.	CEA	Dir (LD&T)
15.	NRLDC	CM (CS); CM (TS)
16.	NRPC	SE (Operations); EE (O-I)

NORTHERN REGIONAL POWER COMMITTEE
Summary record of 23rd Meeting of
ULDC Scheme Monitoring Group (USMG) of Northern Region
held on 27.04.09 at NRPC, New Delhi

List of participants is enclosed at Annexure-I

Welcome

Member Secretary, NRPC welcomed the participants of the 23rd USMG meeting and stated that the USMG was formed to monitor the implementation and facilitate the integration issues of Unified Load Dispatch Scheme (ULDC). He expressed that so far the group had performed very well. He emphasized the need for regular meetings of the group, as this group for 23rd USMG meeting was assembling after a gap of about one year.

Members of USMG welcomed the suggestion and appreciated that the regular meetings of the group should be held.

Sh Suneel Grover, Director (PR), HPSEB explained the back ground of formation of USMG group on the initiatives and insistence of the constituents for effectively monitoring the implementation of the ULDC scheme and also to facilitate the integration issues of the scheme in Northern Region. He stated that on account of the efforts put in by this group, solution had been arrived at in respect of most of the problems related to integration of the existing scheme. He reiterated that NRPC had also mandated the group to undertake activities regarding extension of the ULDC scheme of the region i.e. ULDC Scheme Phase-II.

Based on their operational experience of present ULDC scheme and to take further steps in future, members of USMG arrived at the consensus that during the course of discussion the focus would be on:

- a) Identify the deficiencies in the existing system, share the problems faced and experienced gained and to find ways and means to bring improvement in the system;
- b) Issues related to Annual Maintenance Contract (AMC) of the equipment and system under the existing scheme;
- c) Ensuring the correct functioning and maintaining healthiness of the existing system;
- d) Phasing out the obsolete system and bringing in place an improved system;
- e) Expansion of the scheme i.e. ULDC Scheme Phase-II; and
- f) Sharing of information, experiences and knowledge among members.

Regarding periodicity of holding the meetings of the concerned and level of executives/personnel for participation in these meetings it was agreed to hold Monthly Review Meetings (renamed as Maintenance Review Meetings, MRM) with the participation level of Executive Engineers from the constituents once in each month, by NRLDC and the USMG at a regular interval of three months with senior level of participants from the constituents under the aegis of NRPC. Minutes/outcome of the MRM would be reported by NRLDC to USMG on regular basis. MRM for Supervisory Control and Data Acquisition System/Energy Management System (SCADA/EMS) package installed for the Northern Region would be convened by NRLDC and for 'Communication and End Equipment' would be convened by POWERGRID, NR-I. Thereafter MS, NRPC requested SE (O), NRPC to take up the circulated agenda of the meeting.

1.0 Network Monitoring System (NMS) of Digital Microwave System:

POWERGRID stated that for monitoring of communication equipment installed under ULDC scheme, Network Monitoring System (NMS) had been installed at Regional System Control and Coordination (RSCC) Center. Server is at RSCC and work stations are located at SLDCs. At present AMC of this server is covered under the scope of AMC contractor of wideband equipment, NMS portion of the states is also covered under the same contract. HPSEB stated that they were not using the NMS, whereas, Rajasthan stated that it was in use in their system. The contract for AMC of wideband had expired on 15th March 2009, further the server of this class was no more being supplied by M/S HP and they would not be in a position to provide any support for Hard Disk, Power Supply Unit of HP server and Operating System i.e. HP UNIX.

NMS is vital part of communication network and in absence of NMS it would be very difficult to maintain the system as maintenance engineer deployed to attend the defect in the system would be running in blind alley. Matter was taken up with M/s NOKIA Limited and they have informed that their present NOKIA NMS software can not run on other Operating System (OS), except the one provided by them. However, they had developed new software 'NETVIEWER' which operates on 'Windows Based System'. They had indicated that total financial implications for changing the present NMS system with the new one offered by NOKIA would cost approximately Rs 1.3 crore. Formal offer would be submitted by NOKIA or their authorised representative after survey at all SLDCs and RSCC.

POWERGRID/NRLDC stated that AMC contractor of wideband system had proposed that they would replace the NMS at NRLDC only, without any cost implication to POWERGRID. If NMS was also to be replaced at all SLDCs, charges would be as per NOKIA's offer, i.e. about Rs 1.3 crore in total which

would be covered under Central Sector O&M expenditure (as transmission charges) and to be shared by the constituents. Constituents/NRPC suggested that possibility of buy back of the released obsolete equipment from existing system should be explored. POWERGRID stated that this could form part of the negotiations for awarding AMC.

USMG decided that POWERGRID would send proposal to each constituent indicating total cost implications of the scheme, as well as the cost to be borne by each constituent, in turn the constituents would take up the matter with their management and would revert back in the matter, before the next meeting.

POWERGRID indicated that there are two parts of NMS viz. (i) NMS for Fibre Optic; and (ii) NMS for Microwave system.

For the above mentioned microwave system, cost wise “Radio Communication System” constitutes about 20% and remaining 80% cost component is that of “Multiplexers (Muxs)”. The Radio portion is being phased out gradually and ‘Optical Fibre Cable (OPFC)’ is being installed in its place. Multiplexers will still remain in the system.

2.0 Updating and Replacement of Obsolete Systems:

NRLDC stated that constituents had supplied the details of RTUs requirement till 2010 but year wise details had not been submitted. To identify the updating requirement, it’s necessary to know the capacity and expandability of the system. Further, NRLDC informed that with present capacity of ULDC scheme, they can add up to 120 additional RTUs/substations, provided there were no constraints on the application related parameters. However, RTUs to be implemented would be prioritized after discussions with the constituents.

In order to standardize RTU specifications, facilitate procurement and mitigate integration issues, it was decided to constitute a sub committee comprising of

members from HPSEB, PSEB, and POWERGRID & NRLDC. This committee would submit its report within two months.

The following will be the members of the sub committee:

- i. Superintending Engineer (O), NRPC;
- ii. Sh Y. K. Dixit, Chief Manager, PowerGrid - Member Convener;
- iii. Sh. S. P. Singh, EE, PSEB;
- iv. Sh. N. P. Gupta, Sr EE, HPSEB;
- v. Sh. R. K. Kaushik, EE, HVPNL;
- vi. Sh. Naveen Gupta, DD, BBMB; and
- vii. Smt. Vineeta Aggarwal, Chief Manager, NRLDC

3.0 Procurement of Spare RTUs:

POWERGRID intimated that M/S AREVA had phased out S-900 RTUs and the cost of spares cards of these RTUs as per rates quoted by M/S AREVA were found to be very much on higher side. POWERGRID had tried to procure spares through some other region. However, M/S AREVA was not agreeing to supply the spares in that region also stating that it was not economical on their part to produce cards which are out of assembly line.

Constituents discussed the issue and decided that as discussed in the 8th NRPC meeting, constitutions might go ahead and procure the RTUs themselves. The AMC contract would be negotiated in October, 2009 and AMC related issues would be discussed in the next USMG meeting.

After the deliberations it emerged that a total of 20 RTUs would be procured by POWERGRID, i.e. two numbers for each constituents and the task would be awarded on turnkey basis, including the integration of RTUs.

4.0 Changing the Isolator and Breaker Numbers in ULDC SCADA System as per Field Conventions:

BBMB stated that they were facing operational difficulties in identification of Circuit Breakers and Isolators as the field conventions and the naming conventions in the ULDC are different. Therefore they proposed to modify the names of devices as per numbers and names in field. NRLDC opined that naming conventions were framed during the initial phase of the ULDC project and all the constituents agreed to go ahead with these naming conventions. However, changing naming conventions at this stage of after 6-7 years of operating experience on this system might not be appropriate. This was due to the fact that the existing numbering scheme was being used for a long time and departure from the same might lead to confusion. Further, constituents other than BBMB were of the view that they were comfortable with the naming convention implemented in the present system.

BBMB opined that in order to bring in consistency in the numbering, it was proposed that BBMB would implement field numbering scheme in the SCADA System and accordingly requisite databases and displays should be modified and supplied to all constituents through NRLDC. Even though no change in analog computations viz. drawl calculations would be required, other constituents need to modify in their database incorporating the Circuit Breaker or Isolator tags from BBMB as modified by them.

BBMB opined that the changes outside of BBMB System would be minimal but the exercise would be quite fruitful in the long run.

5.0 EXPANSION OF NR UNIFIED LOAD DESPATCH AND COMMUNICATION SCHEME of NR (PHASE-II)

SE (O), NRPC stated that as per the decision of the 8th NRPC meeting, held at Udaipur on 25th April, 2008 the constituents might go ahead independently for

the expansion of their respective parts of the ULDC scheme (Phase-II). The USMG would decide about minimum standard requirement indicating which data should flow to RLDC and SLDC would ensure the proper integration of ULDC expansion in the Northern Region.

During discussion, constituents expressed their concern about the requirement of common philosophy and approach for expansion/replacement of the present SCADA/EMS systems. USMG decided that a High Level Sub-Committee might be constituted to form the specifications/philosophy after identifying the requirement of expansion of the system for next 7-10 years and the steps involved for the same would be:

- a) Inviting background papers from POWERGRID and Constituents.
- b) Brain storming session.

BBMB expressed that a micro view might be considered for the requirement of the system for next 10 years and the ability of communication of the system among existing systems might be of utmost importance. Availability of Base Paper and Brainstorming Session might not be adequate enough and an expert/consultant should also be appointing for the purpose. It was also intimated that Haryana had issued a 'Request for Proposal (RFP)' to appoint a consultant for their deciding the system suitable to them.

After deliberations, USMG decided to constitute a Sub-Committee comprising the following members :

1. Sh. Niraj Gulati, Chief Engineer (SO), HVPNL;
2. Sh.V. K.Aggarwal, GM, NRLDC;
3. Sh. D. K. Jain, Director, LD&T, CEA;
4. Sh Suneel Grover, Director, (PR), HPSEB;
5. Sh.A. S. Khushwaha, AGM (LD&C), POWERGRID; and

6. Superintending Engineer (Operations) NRPC-Member Convener

The terms of reference of the committee would be as under

- (i) Framing of guidelines for the specification to be finalised by the constituents for expansion/replacement of SCAD/EMS system for grid operation, installation of RTUs at EHV substations, Substation Automation system(only pertaining to data transmission features) for substations/power plants.
- (ii) Framing of Guidelines for integration of new substation/power plant to the control centres committee.
- (iii) Framing guidelines for inter centre (LDCs) data exchange.
- (iv) Design criteria for communication system LDC facilities.

POWERGRID and all other constituents were requested to submit the base paper for consideration of the committee.

The proposed committee would come out with a common approach paper and recommendations for implementation of ULDC-phase II scheme. The Committee would submit its report within two months time.

6.0 Commissioning of Telemetry System Between Baspa HEP and HPSEB by M/S PGCIL (Agenda by HPSEB)

Giving the background HPSEB stated that Baspa HEP (3x100 MW) was commissioned by M/S Jai Prakash Hydro Limited in Himachal Pradesh during June, 2003. This project was connected to Jhakri via 400 kV Double circuit Transmission line. The telemetering arrangement for this project was available at Jhakri End. As per Power Purchase Agreement (PPA) between the HPSEB and M/S Jaiprakash Hydro Limited, transfer of Data from Jhakri to SLDC at Shimla was to be carried out at HPSEB's expenses. The proposal for the Integration of Baspa was discussed in 8th and 9th USMG Meetings at Delhi on 04.10.2004 and

2.12.2004 respectively and it was decided to send detailed proposal to M/S POWERGRID.

It was intimated that the advance payment was made to POWERGRID and POWERGRID tried different modes to provide telemetry to Baspa HPS but the attempts made were not successful.

During August, 2008 as a temporary measure, POWERGRID agreed to integrate Baspa HEP Data through their Jhakri-Abdullapur-Bawana PLCC link by 10th September, 2008 and to study the possibility for restoration of speech through exchanges installed at Baspa, Jhakri, Abdullapur, Bawana and Kunihar. POWERGRID also agreed to procure necessary equipment for HPSEB and provide independent Data/Speech Link to HPSEB through above mentioned route within 3-4 months. By 28th November, 2008 Baspa HPS data was made through on Jhakri-Abdullapur-Bawana-Kunihar link, except for the speech communication on the said route, by POWERGRID. The Data communication was also erroneous and inconsistent and needed manual manipulations.

HPSEB intimated at present this communication link was non-functional since 22nd January, 2009. HPSEB requested that telemetry of Baspa was very important for the Grid's operational and security point of view as well as POWERGRID should provided reliable telemetry at the expense of HPSEB as agreed by them.

It was decided that POWERGRID would install PLCC Link from Nathpa Jhakri-Abdullapur-Bawana Line for providing reliable telemetry of Baspa HEP and HPSEB would take care of its maintenance aspects.

7.0 Non-Reporting of Data by RTUs

Constituents discussed the problems of non-reporting of RTUs circulated in the Annexure to the agenda and updated the status. GM, NRLDC emphasized the

importance of data availability from various critical RTU locations specially which affect real time drawl by the constituents. The over-drawl/under-drawl (OD/UD) of constituents was calculated on the basis of real time drawl data of the respective constituents and persistent overdrawal under low frequency had severe implications in the form of penalties as laid down by CERC.

USMG was of the view that for smooth functioning and taking care of future integration and expansion of the ULDC scheme, dedicated personnel should be deployed to look after the ULDC scheme and they should not be transferred frequently. This would ensure the availability of trained and expert personnel for this specialised assignment. It was also decided that a letter be addressed to the CMDs/CEOs of the constituent utilities to impress upon the need of skilled personnel and also of strengthening the staff strength at respective SLDCs.

8.0 Up-gradation of CFE at Laltonkalan ALDC

PSEB while briefing the issue stated that they were in the process of procuring 25 Nos. additional RTUs and integrate with Ablowal SLDC(10 Nos), Laltokalan Sub-LDC(11 Nos) and Jamsher Sub-LDC(4 Nos). At Ablowal CFE up-gradation was planned and at Jamsher, spare capacity was available. However, at Laltokalan, spare capacity was not available. PSEB was having 3 options in this regard:

1. Add one more card at Laltokalan with 16 additional RTUs capacity, through M/s Areva as it involves addition of hardware modules and carry out software configuration.
2. Replace Laltonkalan CFEs with new PC based CFEs as proposed at Ablowal SLDC.
3. Get all the new RTUs designated for Laltokalan (11 Nos) to report them at Ablowal SLDC. This will require additional communication channels.

NRLDC suggested that PSEB might go ahead for either option 2 or option 3. PSEB had apprehensions of inclusion of the new CFE in the existing AMC in case PSEB opts for option 2, NRLDC clarified that the new CFE will be covered under existing AMC and there won't be any problem. .

9.0 Date, Time and Place of Next Meeting:

It was decided to hold USMG meeting on quarterly basis, preferably after holding of the three Maintenance Review Meetings (MRMs) of the working level professionals by NRLDC.

Meeting ended with thanks to the chair.

PARTICIPANTS OF 23rd USMG MEETING-27.04.09 AT NRPC, Delhi.
In Chair- Sri A K Aggarwal, MS, NRPC

Sr.No	Name S/Sh.	Designation	Organization	Contact No.
1.	R.S.Lamba	Director/PR	BBMB	94172-16058
2.	Naveen Gupta	Dy.Director/LD	BBMB	94639-55902
3.	Vineeta Agarwal	Ch.Manager	NRLDC	9910045537
4.	V.K.Agrawal	GM	NRLDC	9818933799
5.	Devendra Kumar	Chief Manager	NRLDC	9910267682
6.	Bhaskar Sharma	Chief Manager	POWERGRID	
7.	Y.K. Dixit	Chief Manager	POWERGRID	9811309921
8.	B.Sharma	GM	POWERGRID	9958555761
9.	D.K.Jain	Director	(LD&T),CEA	9899209929
10.	Suneel Grower	Director (PR)	HPSEB	9816096666
11.	Rakesh Sharma	Sr XEN(Comm.)	HPSEB	9318500783
12.	B.S.Singla	Sr XEN	PSEB	9646118024
13.	S.P.Singh	DD/SLDC	PSEB	9646118022
14.	P.C.Triveed	Executive Engineer	RUPNC	09414061387
15.	Praveen Malhotra	SE(Microwave)	UPPTCL	9415311801
16.	Roop Kumar	DGM(SLDC)	DTL	9810299689
17.	Niraj Sharma	Manager(SCADA)	DTL	9810516915
18.	Neeraj Verma	Sr. Manager(CM-D)	THDC	9997999111
19.	Guru Charan Singh	DGM(TFC)	PTCUL	09412074031
20.	A.K.Rajput	SE(O)	NRPC	9868202176
21.	RP Aggarwal	SE	NRPC	
22.	K.K.Arya	SE	NRPC	9810455760
23.	Rishika Sharan	EE	NRPC	
24.	Vikram Singh	EE	NRPC	9868893051