



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

उत्तर क्षेत्रीय विद्युत समिति

Northern Regional Power Committee

स.उक्षेविस/ प्रचालन /108/04/ 2018 / 4485 - 4519

दिनांक : 16 .04.2018

No. NRPC/OPR/108/04/2018/

Date: 16 .04.2018

सेवा में / To,

सूची के अनुसार मंलग्न /As per list attached

विषय: दूरसंचार, स्काडा और टेलीमेटरी उप समिति की तेरहवीं बैठक

**Subject: 13<sup>th</sup> meeting of Telecommunication, SCADA & Telemetry Sub Committee**

दूरसंचार, स्काडा और टेलीमेटरी (टेस्ट) के तेरहवीं बैठक 24.04.2018 ( मंगलवार )को सुबह 10.30 बजे उ. क्षे. वि. समिति , नई दिल्ली में आयोजित की जाएगी इस बैठक के लिए एजेंडा उ. क्षे. वि. समिति वेबसाइट ([www.nrpc.gov.in](http://www.nrpc.gov.in)) पर होस्ट कर दिया गया है। कृपया इस बैठक में भाग लेने का कष्ट करें।

The 13<sup>th</sup> meeting of TeST sub-committee will be held on 24<sup>th</sup> April 2018 ( Tuesday) 10.30 AM at Conference Room, NRPC, New Delhi... Agenda for this meeting has been hosted on NRPC website ([www.nrpc.gov.in](http://www.nrpc.gov.in)). Kindly make it convenient to attend the meeting.

(Hemant Kumar Pandey)

(अधी. अभि. & सदस्य संयोजक टेस्ट उप समिति /

SE & Member Convener TeST sub-committee)

## List

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2. Dy Chief Engineer BBMB, Chandigarh-160019, (Fax-0172-2549548)
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5. General Manager (SLDC), DTL, New Delhi-110002, (Fax-011-23221012)
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23. General Manager, NRLDC, New Delhi-110016, (Fax-011-26853082)
24. Chief Engineer (SO&C), SLDC, HVPNL, Sewah, Panipat , (Fax-0172-2560622)
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28. DGM, Electrical, Jhajjar Power Ltd., Haryana, (Fax-01251-270155)
29. Director, Lanco Anpara Power Ltd., (Fax-124-2341627)
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31. Development Commissioner (P), PDD, Srinagar, J&K, (Fax-0194-2452173)
32. Managing Director, J&K State Power Dev. Corp., Srinagar, J&K, (Fax-0194- 2500145)
33. HOG power system control, TATA Power Delhi Distribution Limited, New Delhi, (Fax-011-66050601), CENNET building, Opp to PP Jewellers Netaji subhsh place,, New Delhi ( Kind Attn Sh.P Devanand)
34. Sr. Vice President, JSW Energy Ltd., New Delhi-110066 (Fax: 46032343 / 26183546)
35. Managing Director, UPCL, Dehradun-248006, (Fax-0135-2768867)

## Agenda for 13<sup>th</sup> Meeting of Telecommunication, SCADA & Telemetry (TeST) Sub- Committee

Date: 24.04.2018

Venue: Conference Hall, First Floor, NRPC, Katwaria Sarai, New Delhi

### 1. Confirmation of Minutes

#### 1. Confirmation of Minutes:

The minutes of 12<sup>th</sup> meeting of TeST sub-committee held on 22.12.2017 were issued on 23.01.2018. Minutes are available on NRPC website ([www.nrpc.gov.in](http://www.nrpc.gov.in)). No comment on the MOM has been received.

**Members may discuss and confirm the Minutes.**

### 1A. Follow -up

#### 1A Follow-up of Decisions in 12<sup>th</sup> Test meeting held on 22.12.2017

Responsibility for Action plan and Time line for Various issues were mentioned in Minutes of 12<sup>th</sup> TeST meeting issued on.23.01.2018.

Brief of important decisions taken in the 12<sup>th</sup> TeST meeting and status as available in NRPC Sectt. is enclosed at **Annexure-1**.

**Members may submit, the status of the identified action points on these decisions. If the action could not be taken, then, the reasons, constraints and action plan for completion of the task may be submitted, so that the same may be discussed in the meeting.**

### 2. Telecommunication Related Issues

#### 2.1 OPGW installation under central and state sectors:

##### 2.1.1 Latest status of OPGW installation progress under central sector:

As per the information received from POWERGRID out of 5203 Kms. of OPGW under Central sector, OPGW of 5162 Kms. had been completed. The details of balance OPGW, which was on under - construction lines were as under:

- i) Abdullapur – Dehradun : 64.6 Kms. out of 89 Kms completed. Balance is 24.4 Kms. Expected to be completed by Feb.,2018 . Construction of transmission line was held up due to severe RoW issues.
- ii) Kishenpur – Dulhasti : 113 Kms. out of 119 Kms completed. Balance is 6 Kms. Expected to be completed by Jan'2018. Delay was due to severe RoW issues.
- iii) Uri-II to Uri-I line : 10 Kms. It was deleted from the scope due to sever RoW problem However, as per discussion in 40<sup>th</sup> NRPC meeting, POWERGRID will deploy their team one more time, NHPC will provide necessary support during the work. Commissioner of Power, J&K PDD had also assured for District Administration's help for clearance of RoW issues. POWERGRID informed that team will be deployed after completion of Kishenpur- Dulhasti link as same team may be utilised for completion of this link and this would be final attempt for this link.

**Members may update the status.**

## **2.1.2 Reliable Communication Scheme under Central Sector for NR.**

2.1.2.1 SE, NRPC informed that, implementation of following Communication Schemes were approved in 37<sup>th</sup> TCC and 40<sup>th</sup> NRPC meeting held at Srinagar.

- a) Reliable Communication Scheme under Central Sector for Northern Region consisting of 5428 Km of OPGW along with communication equipments and associated items at a cost of Rs. 177 Cr.
- b) Replacement of OPGW along with communication equipment and associated items installed under ULDC project Phase-I consisting of 1820 Km of OPGW along with communication equipments and associated items at a cost of Rs. 60 Crs. The same is taken up as a part of Reliable Communication Scheme under Central Sector for Northern Region.

2.1.2.2 In 12<sup>th</sup> TeST meeting, Representative of POWERGRID informed that DPR had been approved but due to revision in Qualifying Requirement (QR) with the provision of "Make-in-India" , tendering process was rescheduled. He added that NIT was expected by Jan'18.

**POWERGRID may update the present status.**

### 2.1.3 Latest status of OPGW installation progress under state sector:

2.1.3.1 The progress as updated in the 12<sup>th</sup> TeST meeting, by POWERGRID, are as under:

SI No	Name of Package	Award Date	Completion schedule	Status
1	OPGW for State sector (Package-V) M/s ZTT/ECI/Steel Product	July, 2015	Feb, 2018	Out of total 1669 Kms., 1650 Kms. Completed. Balance – 19 Kms. (DTL-10, UPPTCL-9)
2	OPGW for State sector additional requirement (Package-I a) (supply Pkg) M/s SDGI-Offshore contract	Oct, 2015	Feb,2018	Initial Scope: 2800 Kms. Revised Scope: 3374 Kms. Supply completed: 2569 Kms. 403 Kms at Indian Port and balance 402 kms. to be supplied in Feb'2018.
3	OPGW for Additional requirement for CS and SS (Package-III a) M/s Prem Power	Sept,2015	March,2018	Revised scope: 706 Kms. Total supply completed. 350 Kms installation completed.

2.1.3.2 Regarding balance portion of 10 Km. under **Package-V**, on DTL lines i.e. Bamnauli-Ballabgarh ( 8 Km.) , and Bamnauli-Jhatikara (2 Km. ) , representative of POWERGRID informed that under Package-V, DTL was not allowing for OPGW laying in “Live Line” condition and shut down was not provided by them till Oct'2017. POWERGRID want to do the work in “Live Line” condition as done in other links. He added that OPGW on these links would be completed at one go, as balance work is very less and vendor would not be able to deploy their team citing losses in work.

2.1.3.3 DTL agreed to issue work permit in “Live Line” condition, subject to deployment of one engineer from POWERGRID to oversee the work. POWERGRID agreed to the same.

#### **DTL and POWERGRID may intimate present status.**

2.1.3.4 POWERGRID informed that under **Package-V** on UPPTCL's 400kV Greater Noida - 220 kV Noida Sector 20 link, 2.7 Km. OPGW work was pending due to non-issuance of shutdown for both the circuits on Mono pole towers. Alternate option for fixing of clamp on mono pole tower for laying OPGW was explored and decision from UPPTCL was awaited ( subsequently, POWERGRID informed that decision from UPPTCL was received on 10.12.2017) . POWERGRID would procure these special clamps for laying of OPGW on this link. Completion was expected in Jan,2018.

2.1.3.5 POWERGRID representative further informed that under **Package-V** on UPPTCL's Muradnagar-Loni link , 6.2 Km. OPGW work was pending due to severe ROW issues. He suggested that UPPTCL may take necessary support from District Administration for resolving the RoW issues.

**UPPTCL and POWERGRID may intimate present status.**

2.1.3.6 Regarding installation of OPGW supplied under State sector additional requirement (Package-I a) - 3374 Kms POWERGRID informed that :

Installation for these OPGW links were bifurcated in two region i.e. NR-I (810Kms -all central sector links) and NR-II (2564 Kms Central sector & State sector). Out of 810 kms, 192 Kms had been completed, Completion target is Mar'2018. For NR-II, out of 2564 Kms, 730 Kms had been completed which includes HPSEBL & PSTCL links.

*POWERGRID may update the status.*

2.1.4 **Status of NHPC stations (agenda by NHPC)**

**In 38<sup>th</sup> TCC and 41<sup>st</sup> NRPC meeting held at Faridabad POWERGRID informed the following status**

2.1.4.1 **URI I Power Station:**

**POWERGRID representative informed that OPGW has not been commissioned however the data was flowing through PGCIL Telecom fibre.**

2.1.4.2 **URI II Power Station:**

**POWERGRID representative informed that gangs have been mobilized however due to shelling. Once shelling stops work will be completed within 2 months.** Earlier NRPC Sectt. received a mail dated 5<sup>th</sup> Feb,2018 by POWERGRID that. POWERGRID was planning to deploy AMC vendor M/s Telegence India for laying of OPGW on this link (Uri-I to Uri-II) from 15.02.2018. POWERGRID had requested NHPC to instruct URI officials for taking up with District Administration for providing necessary support during resolution of ROW issues. Accordingly NRPC Sectt. vide letter dated 7<sup>th</sup> Feb,2018 requested Commissioner/Secretary, PDD, J&K to provide required support from District Administration for the work.

**POWERGRID may update the present status.**

2.1.4.3 **Bairasiul, Sewa-II and Parbati-III:**

Commissioning of OPGW at Bairasiul and Sewa-II was assured by POWERGRID by November 2017 in 37<sup>th</sup> TCC and 40<sup>th</sup> NRPC meeting held on 27<sup>th</sup> and 28<sup>th</sup> October 2017, In the 12<sup>th</sup>TeST meeting held on 22.12.2017,timeline informed for commissioning the OPGW at Bairasiul and Sewa-II Power Station is February 2018. It was also informed that commissioning of OPGW at Parbati-III Power Station shall be done by June 2018..

In 38<sup>th</sup> TCC & 41<sup>st</sup> NRPC meeting POWERGRID representative informed that Bairasiul, Sewa-II will be commissioned by March 2018 while Parbati-III will be commissioned by June 2018 .

**POWERGRID may update present status.**

#### 2.1.4.4 Data telemetry of Kishanganga HE Project through OPGW

OPGW being the most reliable communication link for data telemetry are being laid on existing and new Transmission Lines under Central Sector Scheme. NHPC has recently commissioned 330MW Kishanganga HE Project in the state of Jammu & Kashmir and data telemetry of the Project is presently being done through BSNL MPLS Lease line. Data telemetry of Kishanganga HE Project through OPGW needs to be established.

**Members may deliberate.**

#### 2.2 Replacement of S900 RTUs ( Agenda by NRLDC, DTL , HPSEB, POWERGRID)

AMC of S900 RTUs installed under ULDC is valid till July 2018. During 12<sup>th</sup> TeST Meeting it was decided that PGCIL shall replace S900 RTUs of PGCIL and members/constituents who have consented for their RTU replacement by July 2018.

POWERGRID informed that they had sent MoU/Agreement for replacement of old S-900 RTUs to all constituents in first week of Feb' 2018. However, only two constituents namely SJVNL & THDC Limited has signed MoU/Agreement. It was informed that award shall be placed only after signing of MoU/Agreement between POWERGRID & respective constituents of Northern Region & deposit of advance payment. HPSEB informed that the matter regarding signing of MOU for replacement of old S-900 RTU's is under consideration of the Management of HPSEBL.

**Members may inform status and action plan for signing of MoU/Agreement & payment, so that tendering process for procurement of new RTUs may be initiated.**

#### 2.3 AMR data through Fibre Network ( Agenda by NRLDC)

During 12<sup>th</sup> TeST Meeting it was decided that PGCIL would do pilot for integration of SEM data through fibre optic network. Accordingly, Pilot project was carried out by PGCIL and data from Maharaniabagh was made available through fibre.

In the 38<sup>th</sup> TCC & 41<sup>st</sup> NRPC meetings held on 27<sup>th</sup> & 28<sup>th</sup> Feb, 2018, POWERGRID informed that the pilot project has been successfully completed the pilot project at Maharaniabagh S/Stn recently and beneficiaries should give their consent for implementation at other locations.

POWERGRID was requested to intimate the estimated cost implication for shifting the AMR data on OPGW network, wherever feasible, so that views of the members may be taken. POWERGRID agreed for the same.

**Cost estimate has not been submitted by POWERGRID. The same may be submitted to NRPC secretariat at the earliest, before the TeST meeting, so that it can be discussed in the meeting.**

## **2.4 Implementation of Regulation on Communication( Agenda by NRLDC)**

### **2.4.1 Formation of guideline for calculation of “Availability of Communication System”**

The regulation on communication has been issued on 15<sup>th</sup> May, 2017 with an effective date of 1<sup>st</sup> July,2017. As per the regulation 7.3 (ii) “The RPC Secretariat shall certify the availability of communication equipment for CTU, ISGS, RLDCs, NLDC, SLDCs based on the data furnished by RLDC”

Further, as per regulation 7.3 .(i) “ NPC shall be responsible for issuance of the guidelines with the approval of the Commission on “Availability of Communication System” in consultation with RPCs, RLDCs, CTU, CEA and other stakeholders within a period of two months from the date of notification of these regulations.”

RLDC needs to keep records of the communication outage based on requirements of the guidelines to be decided by NPC and approved by Commission since 1<sup>st</sup> July, 2017. No data is yet to be made available by the communication service provider.

In view of above, guidelines may be made available to NRLDC so that the necessary records could be collected from the communication service provider for calculating the “Availability of the communication System”.

**Member may discuss.**

### **2.4.2 Issuance of Technical Standards for the communication system**

As per regulation 7.1 (ii) “CEA shall formulate and notify technical standards, cyber security requirements in accordance with the Cyber security Policy of the Govt of India from time to time, protocol for the communication system for Power Sector within the country including the grid integration with the grid of the neighboring countries.” Further, guideline for interfacing requirements needs to be formulated within 60 days from the issuance of the technical standards to be issued by CEA.

Draft “Technical Standards” on Communication is available on CEA website for comments from the stake holders. Cyber security requirement for communication system are also to be finalized and documented for compliance.



NLDC has to prepare the guideline on interface requirements for the communication system based on the above two documents.

**Member may discuss for finalization.**

#### 2.4.3 **Formulation of planning criteria for the communication system**

As per regulation 7.1 (i) “CEA shall formulate communication planning criterion and guidelines for development of reliable communication system for power system of India duly considering requisite route redundancy ,capacity, as well as requirements of smart grid and cyber security.”

NRPC may like to inform the members the action taken in this regard, so that the TeST sub-committee may discuss the future communication requirement based on the planning criteria being decided by CEA.

### 2.5 **Communication issues of NR States**

#### 2.5.1 **HVPNL communication issues ( Agenda by HVPNL)**

##### 2.5.1.1 **Implementation of Multi Site Configuration between SLDC Panipat and SLDC Shimla:** The implementation of Multisite Configuration between SLDC Panipat and backup SLDC Shimla is pending. Out of total 29 no. Stations, only 5 no. Stations of Shimla end are reporting at SLDC Panipat. Matter needs to be taken up with M/s Siemens for its early solution.

**Members may discuss.**

#### 2.5.2 **HPSEB Communication Related Issues: (Agenda by HPSEB)**

##### 2.5.2.1 **Implementation of OPGW under Package-I (a).**

Under package-I (a), OPGW of about 545.335 Km is to be laid on HPSEBL transmission network and as per LOA, work was to be completed by 31.03.2017. However, during 12<sup>th</sup> TeST MoM, it was agreed by POWERGRID that this work shall be executed by May, 2018.

In this context, it is intimated that the teams involved in stringing work of OPGW has been dismantled from HPSEBL site w.e.f 19.11.2017 and as on date, no stringing work is being carried by the Firm on HPSEBL Transmission network. The concerned firm may be directed to restore OPGW stringing work immediately, so that it could be completed by **May, 2018** as decided in 12<sup>th</sup> TeST meeting.

**POWERGRID may inform the Status & Action plan.**

##### 2.5.2.2 **Installation of OLTEs under Package-V & Package IV (a).**

Under package-V, Terminal equipments (SDH & PDH) are to be installed on 14 Nos HPSEBL locations and DCPS system are to be installed on 08 nos. locations. In this

context, it is intimated that as per LoA, work was to be completed by **31.03.2017**. SDH & PDH equipments are being delivered to the respective site by the concerned vendor and 48A DCPS systems are still not delivered to any site, however, as per 12<sup>th</sup> TeST meeting, the work of installation of DCPS system & OLTEs was to be completed by Feb'2018.

**POWERGRID may apprise the latest status and action plan.**

### 2.5.3 DTL Communication issues (Agenda by DTL)

#### 2.5.3.1 Replacement of diverted Communication Eqpts. /addl. BOQ.

A number of SDH/PDH communication equipments have been diverted / utilized by POWERGRID for the project works, from earlier allocated DTL sites, such as 220KV Patparganj / Preet Vihar etc. In 12<sup>th</sup> TeST meeting , Representative of POWERGRID had informed that procurement was under process and same would be replaced/replenished by Mar' 2018.

**Plan for replacement / installation at those sites alongwith the additional approved BOQ for other sites, be provided by POWERGRID.**

2.5.3.2 New communication equipment (ECI make) that is supplied under ULDC Scheme has been installed and DTL is in process of shifting of data from the old setup (Fijutsu and Nokia equipment). After one time installation, no support / manpower is available from the vendor's side for minor tweaking in configuration and troubleshooting during data shifting process.

**POWERGRID may provide a plan for AMC / support for maintaining new communication equipment.**

2.5.3.3 Further, since some data of central sector is also flowing through old equipment of DTL, POWERGRID should also take steps for shifting of their data to newly installed communication equipment of DTL if any. Once all data is shifted to new system, old equipment shall be taken out of the service and AMC will be stopped.

**POWERGRID to confirm its plan for the same.**

2.5.3.4 Training on newly installed communication equipments/ DCPS is not yet conducted. As informed in 12<sup>th</sup> TeST meeting, for training on OPGW and communication equipment, schedule was to be sent by 2<sup>nd</sup> week of Jan' 2018.

**POWERGRID to inform status and Action plan.**

### 2.6 Requirement of Ethernet ports at NRLDC (Agenda by NRLDC)

During 12<sup>th</sup> TeST meeting, it was decided that POWERGRID would arrange and provide additional SDH equipment/Ethernet ports as per Constituent's requirement (Tejas make) and the expenditure on this work may be booked under Add-CAP of the Project.

POWERGRID requested all Constituent's to give details of additional requirement to place order for combined requirement of SDH equipment/Ethernet ports. Sub-committee advised constituents to inform the requirement to POWERGRID by 31.12.2017. POWERGRID was advised to procure SDH equipment/Ethernet ports at the earliest keeping in view requirement by different agencies and future requirements.

**POWERGRID may update the status & Action plan of procurement.**

<p><b>3. Issues in Unified Load Dispatch &amp; Communication scheme of NR (Phase-II):</b></p>
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**3.1 Replacement of Siemens Engineer at SLDC Panipat: (Agenda by HVPNL)**

A Software Engineer has been deployed by M/s Siemens at SLDC Panipat as a substitute of earlier Software Engineer at SLDC Panipat, who was working for past more than three years. The earlier Engineer left HVPNL office on 31.03.2018 and new Software Engineer was deployed without any prior intimation/discussion and consent of HVPNL authorities. Moreover, the engineer deployed does not meet with the requirements as per the terms and conditions of the contract/bidding documents. Matter has already been taken up with M/s Siemens and PowerGrid a no. of times regarding this issue. This is a matter of great concern and may lead to security issues/system threat & hamper the smooth functioning and healthiness of the system. M/s Siemens Ltd. may be asked to provide the qualified and skilled engineers in accordance with the conditions of the contract to maintain the SCADA/EMS System to the desired level of availability.

**Members may discuss.**

**3.2 SCADA issues of HVPNL (Agenda by HVPNL)**

**3.2.1 EMS tuning:**

A Junior Engineer from SCADA-EMS Divn., HVPNL, Panipat was deputed to NRLDC for a week-time to have hands-on session regarding EMS tuning activity. But while carrying out the EMS tuning activity, certain problems/misconceptions are being faced which are not been resolved even with the help / support available from M/s. Siemens Engineers deployed at SLDC, Panipat as they are not conversant with the EMS functionality of the system.

The matter was discussed in the 12<sup>th</sup> TeST meeting wherein it was assured by M/s Siemens to deploy suitable manpower, who can help in EMS tuning activity at SLDC Panipat. Matter needs to be taken up with M/s Siemens regarding the same.

**Members may discuss.**

**3.2.2 Load forecasting application not working at SLDC Panipat:-**

Load forecasting is urgently required for system operation activities. But the load forecasting application is not operational at SLDC Panipat. The matter is being continuously taken up with M/s Siemens since last 15 days, but nothing fruitful has been received till date. Matter needs to be taken up with Siemens to rectify the issue and made load forecasting application operational at SLDC Panipat.

**Members may discuss.**

**3.2.3 Symbol for monitoring healthiness of UFR, df/dt relays:-** The symbol for monitoring healthiness of UFR, df/dt relays has not been provided by M/s Siemens. This issue was also raised by UPPTCL during 12<sup>th</sup> TeST Meeting. M/s Siemens may be asked to check and resolve the issue.

**Members may discuss.**

**3.2.4 Rollover to IPv6:-** In the 12<sup>th</sup> TeST Meeting, the sub-committee advised that the necessary action regarding migration to IPv6 in compliance to Govt. directions shall be taken by the concerned utilities in co-ordination with their internet service provider. Thus, POWERGRID is requested to get this activity carried out.

**Members may discuss.**

**3.2.5 Interruption in publishing of SCADA data on SCADA Web Server:-** The publishing of SCADA data on SCADA Web Server gets interrupted many times, resulting into inconvenience to the system user. The interruption in the publishing of SCADA data on SCADA Web Server has occurred many times during past 2 months at SLDC Panipat. M/s Siemens may be asked to check and resolve the issue at the earliest.

**Members may discuss.**

**3.2.6 Non-working / Failure of Haryana SLDC Website:-** Haryana SLDC website stopped working at 10:00 hrs on dated 04.03.18 and was restored on dated 06.03.18. As per analysis report received from M/s Siemens, the Haryana SLDC website stopped working due to HISDW database dbf file size becoming zero abruptly. The reason behind the size of this HISDW database dbf file becoming zero has not been intimated in the analysis report provided by Siemens. The detailed analysis report duly validated from POWERGRID regarding non-working of SLDC website needs to be submitted by M/s Siemens citing the reason behind the database dbf file size becoming zero, preventive action taken, any kind of data loss, etc.

**Members may discuss.**

**3.2.7 EMS Training:** - It was decided in the 12th TeST Meeting that EMS training from M/s. Siemens on behalf of all the NR constituents would be conducted at respective

constituent SLDCs. Although the schedule for EMS training was confirmed from 12.03.18 to 16.03.18, but on account of the training arranged by POWERGRID on WAMS System of URTDSM project held at NRLDC, New Delhi from 13.03.18 to 14.03.18, EMS training couldn't be carried out. New schedule for EMS training may be decided at the earliest.

**Members may discuss and decide the schedule.**

- 3.2.8 **Database Synchronization:** - In the 12<sup>th</sup> test meeting, it was informed by HVPNL that the incremental ICCP data base should be provided along with domain data while database synchronization on monthly basis, so that changes with respect to the other constituents could become available with every database modifications. The Subcommittee advised NRLDC to explore the feasibility of sharing updated ICCP data base in first week of every month with States, but the same is not being shared with the States on monthly basis. NRLDC is requested that the updated data should be provided periodically.

**NRLDC may inform the status & action plan.**

### **3.3 HPSEB SCADA issues (Agenda by HPSEB)**

- 3.3.1 Latency is still being observed in SIEMENS RTU's in HP. As decided in the 12<sup>th</sup> TeST meeting, M/S SIEMENS agreed to resolve the issue during their AMC visit. M/S SIEMENS Engineer visited the site during March'2018 for the maintenance but the latency issue has not been rectified/resolved. Due to latency in data reporting, difference in SEM vs SCADA values has been observed. M/s SIEMENS may be directed to resolve the issue at the earliest.

**POWERGRID may provide the information on the Action taken.**

- 3.3.2 If any additional bays are to be interfaced with the SIEMENS RTU and are not included in the BOQ, the modalities are to be finalized. During 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> TeST meeting, M/s PGCIL had informed that rate contract for interfacing additional bays shall be finalized by them in due course of time but the same is still awaited. The latest status in the matter may be communicated.

**Members may discuss.**

### **3.4 DTL SCADA issues (agenda by DTL)**

- 3.4.1 **Non- availability of Siemens Site Engineer 1**

Two no's Siemens Engineers were deputed at DTL under ULDC Phase 2 scheme. However, since 16<sup>th</sup> March 2018 only one engineer is reporting at site, in spite of number of reminders to Siemens.

**Members may discuss.**

**3.4.2 Immediate requirement of S900 RTU's cards**

DTL has urgent requirement of S900 analog cards, as no analog cards are available with DTL and most of the CPU and digital cards are faulty of S900 RTUs. It is requested to provide/ arrange S900 RTU's Analog, digital and CPU cards from the constituents where S900 RTU's have been replaced with new RTU's.

**Members may discuss.**

**3.4.3 Charges for bay extension in Siemens RTU's.**

As already requested in previous TeST meetings, Unit charges for extension of 220 / 66 / 33 KV bays in RTU's installed by Siemens under ULDC#2 needs to be provided to the Utilities to enable the proposed bay extension work at various sites. Same has still not been provided.

**Members may discuss.**

**3.4.4 Clarification on inclusion of GST under Maintenance Contract:**

According to Volume 1 Conditions of Contract 22.4 (f) at page 25, it is stated the quoted price is inclusive of taxes and the Employer would not bear any tax liability. However, after introduction of GST, M/S Siemens has modified the AMC rates as per GST, which is not in line with the T&C of Contract. Further, GST is also not included in the final amendment of Maintenance Contract issued by PGCIL.

**Members may discuss.**

**4. Telemetry Related Issues**

**4.1 Non-Availability / Reliability of Telemetry (Agenda by NRLDC)**

The new stations at 400 kV are being integrated in the system. Though the telemetry integration is ensured before charging the new element, the reliability of telemetry is not at all ensured. The reliability of telemetry of the following stations are very poor :

<b>PGCIL</b>			
Budhil	Koteshwar Pooling	Malana	Banala
Maharani Bagh	Ludhiana	Salal	Aligarh
Sewa-2	Chittorgarh	Balia	Chamba
Dhanoda	220 KV Giri	Baglihar	Gladni
Hiranagar	Udhampur	Ziankot	Bhadla

Chittorgarh	Kalisindh	Banda	Agra South
Greater Noida	Nehtaur		

Reliability of telemetry for some of the stations are poor since its integration. Member may like to discuss the issues and resolution target for restoration of reliability.

**Concerned Utilities may submit the issues and their rectification action plan to NRPC Sectt. at the earliest , so that the same may be discussed in the meeting.**

#### 4.2 Telemetry of digital status (Agenda by NRLDC)

The importance of correct Digital telemetry was discussed in all the TeST sub-committee meeting and it is observed that there is no improvement in this regard. It was decided in 12<sup>th</sup> TeST Sub-committee meeting that the constituent will furnish the availability status of 220 kV and above stations and improvement there off.

Members are requested to furnish the status of digital data telemetry of the stations for and the same may be discussed for further improvement.

**Concerned Utilities may submit the status and action plan for removal of deficiencies to NRPC Sectt. at the earliest , so that the same may be discussed in the meeting.**

#### 4.3 Communication plan for channel redundancy and to back-up NRLDC (Agenda by NRLDC)

The provision of redundant communication was discussed in 8<sup>th</sup> TeST held on 26<sup>th</sup> July, 2016, and in all the subsequent TeST meetings. However, redundant data communication is yet to be ensured at NRLDC after prolong discussion.

Presently 81 RTU out of 124 are reporting on redundant channel. It is requested to expedite the process of providing redundant channel at the earliest.

**Concerned Utilities may submit the status and action plan for removal of deficiencies to NRPC Sectt. at the earliest , so that the same may be discussed in the meeting.**

#### 4.4 Calculation of Actual Drawl in SCADA:(Agenda by HVPNL)

The SEM and SCADA data for each points are being compared and the points for which % age errors are more than 5 % are reported for correction. The inaccuracy/mismatch (in SCADA Vs SEM) for the below mentioned points was reported in past months but the problem is yet to be resolved.

- Hisar\_PG - 220 KV Fatehabad-1&2.
- Kurukshetra HVDC\_PG – 400/220KV T/F T-1 & T-2

- Hisar\_BB – 132KV Rajgarh
- Hisar\_BB – 132KV Amarpurthedi
- Panipat\_BB – Chhajpur ckt-1&2.
- Pinjore\_HS – 220kV Kunihar

**HVPNL requested** NRLDC is requested to resolve the problem of SCADA data mismatch with SEM and restore accuracy of telemetry data.

**Members may discuss.**

## **5. Unified Real Time Dynamic State Measurement (URTDSM) Scheme**

### **5.1 URTDSM Status (Agenda by HVPNL)**

- 5.1.1 SAT of URTDSM system installed at SLDC Panipat for better monitoring of system operation has been completed on 16.02.2018. However, during SAVT period, URTDSM system failure occurred on dated 28.03.18. Matter has also been taken up with PGCIL & M/s GE india Ltd. to submit the detailed report regarding failure of URTDSM system, but nothing has been received in this regard. Matter needs to be taken up with the concerned.

**Members may discuss.**

- 5.1.2 **Installation of PMU:-** Site survey was done by M/S GE at 220KV DCRTTP Switchyard for the re-installation of PMU. Now the dismantling of PMU from PTPS 1 to 4 and installation of PMU pending on part of M/s Powergrid.

**POWERGRID may update the status.**

### **5.2 Pending PMU installation at 220 kV Pragati (Agenda by DTL):**

Two nos. PMU designated for IP Power , were to be shifted to Pragati station, as per discussions during the 12<sup>th</sup> TeST meeting. Same has not yet been commissioned.

**POWERGRID may update the status.**

### **5.3 Space at NTPC- Dadri for installation of PMUs under URTDSM Project(Agenda by POWERGRID):**



POWERGRID is installing PMUs at various sub-stations of central and state sector utilities under URTDSM Project. There is space problem in NTPC- Dadri for installation of PMUs at control centre. Matter was pending since long back as supply of PMUs was made in Jan'2016 and installation was pending due to space issue, during the last meeting, NTPC informed that extension works of control centre have taken up and work shall be completed by end of March'2018, however till date civil works are still going on. **NTPC may confirm the readiness of control room or provide space in existing control room for installation and commissioning of PMUs.**

## 6. OTHER ISSUES

### 6.1 Pending payment of VCS from PTCUL (Agenda by NRLDC)

NRLDC has supplied and installed Video Conferencing System at PTCUL through M/s Siemens. As referred letter PTCUL shall reimburse the payment to NRLDC. The amount due from PTCUL is Rs. 20, 65,562. However, despite repeated reminders payment from PTCUL is still pending.

**PTCUL to update the status of payment.**

### 6.2 Survey off of Old Assets under ULDC Phase-I:- (Agenda by HVPNL)

HVPNL informed that 21 no. RTUs and UPS have been replaced with new equipment. Hence the old equipment installed under ULDC Phase-I required survey off. In last meeting PGCIL has stated that Life of ULDC Phase-I equipment would be completed in July' 2017 then these equipment will be property of constituents and they can dispose of on their own. PGCIL may inform the procedure of survey off of the same.

**The latest status may be updated.**

### 6.3 State sector schemes through PSDF Funding:- (Agenda by HVPNL)

HVPNL had requested Ministry of Power that the 66 kV is an integral part of Haryana Transmission system and thus OPGW laying & communication / telemetry provisions on 66 kV & above network need to be considered under the ambit of PSDF and Ministry may consider a grant of 70% of total DPR estimate.

Now 2 separate Detailed Project Reports have now been prepared (One for 132KV & above Network and the other for 66KV Network). Fiber / OPGW laying has been proposed (Approx. length for 132 kV & above lines being 4551 Kms. and for 66 kV lines being 2067Kms.) along with the provision of RTUs and Communication Equipment &

Auxiliary power supply system at 66KV & above substations. The DPRs have been approved by HVPNL management and same shall be submitted to PSDF. NRPC is hereby requested to recommend to CEA / Ministry of Power to consider 66KV as an integral part of Haryana Transmission system and provide 70% grant on both the DPRs.

**Members may discuss.**

**6.4 Disposal of old and obsolete SCADA equipment of ULDC I scheme: (Agenda by HPSEB)**

The recovery charges against the ULDC –I Scheme was completed during July'2017 but the communication regarding the disposal of old & obsolete equipment's under said scheme is still awaited from POWERGRID.

**POWERGRID may update the status .**

**6.5 OPGW cut due to diversion of Transmission Lines ( Agenda by POWERGRID):**

6.5.1 It has been observed that on several occasions that some of transmission line wing has diverted the transmission lines without informing to concern offices of that constituents or POWERGRID. Due to this, OPGW installed on these transmission lines are cut and services (RTU/speech/ICCP channels) to SLDC/ NRLDC through these links are affected. These types of incident have happened on several occasions. recently several lines of UPPTCL in NCR has been diverted namely Muradnagar400 to Sahibabad220, Sahibabad to Noida-Sector62, Noida-Sector62 to Noida-Sector20 and Noida-Sector129 to Noida-Sector137-Greater Noida 400 lines by transmission line group and no information was shared with UPPTCL and ULDC-POWERGRID. In this case additional OPGW and Joint Boxes are needed for splicing due to unplanned fibre cut and in some cases, shutdown is also required for OPGW installation, this affected the commissioning of ECI make communication equipment in NCR.

6.5.2 Bareilly-Shahjahanpur link commissioning is pending due to non-completion of OPGW laying which is in the scope of UPPTCL.

**Members may discuss.**

**6.6 Dismantling of Microwave Tower (Agenda by POWERGRID):**

As per discussion in 31<sup>st</sup> NRPC and 28<sup>th</sup> meeting of TCC held on 23<sup>rd</sup> and 24<sup>th</sup> July'2014 at New Delhi, Microwave tower shall be dismantled by respective constituents, POWERGRID along with some of constituents have dismantled these microwave tower. NRLDC has also requested for dismantling of Tower at their premises. POWERGRID have awarded the contract to vendor for dismantling and shifting of materials to store, however permission for dismantling of this microwave tower is not issued, In view of

non-availability of permission, we are not able to dismantle the tower, POWERGRID is going to short close the contract.

**Members may discuss.**

**6.7 Delay in Payment (Agenda by POWERGRID):**

POWERGRID is providing consultancy services on RTU/APS/Wideband/OPGW maintenance to constituents on overhead charges basis as per MOU signed with respective Constituents. Constituents are paying on quarterly or yearly basis with advance payment, however advance payments are being released on delay of 5-6 months and in some cases the delay is one year which is not acceptable and POWERGRID have no other option to deduct the overhead charges from advance 1% deposited with us.

Outstanding payment:

HVPNL – Rs 29 lacs (RTU, Insurance, OPGW, APS & wideband equipment)

J&K PDD – Rs 32 Lac (APS, OPGW, RTU, wideband & Insurance)

RRVNL – Rs 20 Lac (APS, OPGW, RTU, wideband & Insurance)

PTCUL – Rs 6 Lac (APS, OPGW & RTU)

BBMB – Rs 5 Lac (APS, RTU, OPGW, wideband & Insurance)

**Members may discuss.**

**6.8 Pending TDS (Agenda by POWERGRID):**

All Constituents are requested to submit Quarterly TDS certificate in time against payment made to POWERGRID for Consultancy / AMC services which is required to match the books of Accounts.

In view of non-payment of insurance charges, all constituents are requested to do their insurance at their own. POWERGRID is not taking may overhead charges, audit has also objected several times for this type of works without any overhead charges and delay in payment.

**Members may discuss.**

**6.9 Signing of side letters of MoU for AMC (Agenda by POWERGRID):**

- 6.9.1 Side letter of MoU for AMC contract for OPGW is going to expire on 30.06.2018, POWERGRID will send side letters to constituents for signing, all constituents are requested to expedite the signing of side letters by 30.05.2018.

- 6.9.2 Side letter of MoU for maintenance of RTUs was send to J&K PDD long back. However, MoU is yet to be signed by J&K PDD, PDD is requested to expedite the signing of MoUs immediately.
- 6.9.3 POWERGRID have installed communication equipment under Microwave Replacement scheme and AMC for these equipment were envisaged in the contract for 6 years. Payment for the scheme under the project shall be recovered through tariff as per ULDC scheme. A per practice, cost of AMC shall be bourn by the respective constituents, accordingly, POWERGRID will raise the invoices for AMC of communication equipment installed under microwave replacement scheme, a side letter to existing MOU may be signed by constituents for reimbursement of payment to POWERGRID.

**Members may discuss.**

**6.10 Maintaining of temperature at control centres (Agenda by POWERGRID):**

To maintain the temperature in Communication, Server room, Battery room, adequate numbers of Air conditioners must be required to maintain temperature at 27 Degree Celsius. Further, SCADA/URTDMS servers are inbuilt feature for having Auto shutdown to prevent loss of data in case of over temperature (set at 33 Degree), all constituents are requested to main standard AC temperature.

**Members may discuss.**

**Annexure-I****Follow up of 12<sup>th</sup> TeST meeting Decisions**

Sl No	Issue	Action by	Time line	Compliance status as on 15.04.2018
1A	Follow-up of Decisions of 11th TeST meeting held on 10.07.2017	All Constituents	15.01.2018	HP- 3.4.2: SCADA issues of HP resolved. HP- 4.1.1 -100% of all RTU's in HP for December'17, January'18, February'18.
2.1.2.2	OPGW installation state sector POWERGRID agreed to issue NIT by Jan 2018	POWERGRID	31.01.2018	
2.1.3.2 & 2.1.3.3	OPGW balance portion of 10 Km. under Package-V, on DTL lines i.e. Bamnauli-Ballabgarh ( 8 Km.) , and Bamnauli-Jhatikara (2 Km. ) DTL agreed to provide shut down/ permission for live installation. Powergrid agreed to complete by Jan 2018	DTL and POWERGRID	31.01.2017	
2.1.3.5	OPGW under Package-V on UPPTCL's Muradnagar-Loni link , 6.2 Km. OPGW work was pending due to severe ROW issues. POWERGRID agreed team deployment last attempt in Jan 2018 and requested UP to resolve ROW issue	UPPTCL & POWERGRID	Jan 2018	
2.1.3.6	Regarding installation of OPGW supplied under State sector additional requirement (Package-I a) - 3374 Kms NR-I (810Kms -all central sector links Out of 810 kms, 192 Kms had been completed) and NR-II (2564 Kms Central sector &	POWERGRID	March 2018	

	State sector 730 Kms had been completed which includes HPSEBL & PSTCL links)., Completion target is Mar'2018			
2.1.4	<p><b>State Sector Schemes through PSDF Funding:</b></p> <p>Sub-committee advised all other states to take action for submitting the proposal for PSDF funding and implementing the schemes in a time bound manner</p>	Haryana, Delhi, J&K	March 2018	HVPNL ready to submit DPR.
2.1.5	<p><b>Status of OPGW Connection at NHPC Power Stations:</b></p> <p>Dulhasti, Bairasul and Sewa-II</p>	POWERGRID	Feb 2018	
2.2.1	<p><b>Communication Plan for Channel Redundancy and to Back-up NRLDC.:</b></p> <p>It was decided that POWERGRID would ensure that redundant communication channel for all the generating stations &amp; sub-stations except owned by IPPs is provided by Feb, 2018</p>	POWERGRID	Feb 2018	
2.2.2.5	Sub-committee advised constituents to inform the requirement to POWERGRID by 31.12.2017. POWERGRID was advised to procure SDH equipment/Ethernet ports at the earliest keeping in view requirement by different agencies and future requirements.	All constituents	Dec 2017	
2.2.3	AMR Data Through Fibre Optic Network	POWERGRID	Jan 2018	
2.2.4.2	Regarding underground fibre connectivity of UP SLDC Gomti Nagar with 220kV S/S Gomti Nagar. The sub-committee advised POWERGRID for expediting the award process and complete the connectivity at the earliest	POWERGRID	May 2018	

2.2.5.1	Replacement of diverted Communication Equipments /Additional BOQ for DTL	POWERGRID	31.03.2018	
2.2.5.2	Training / Drawings/documents of newly installed Communication / DCPS to DTL	POWERGRID	15.01.2018	
2.2.6.2	Installation of OLTE under Package- V & Package IV (a). at HPSEB	POWERGRID	Feb.2018	
2.2.7.1 & 2.2.8.1	. Implementation of Multisite Configuration between BBMB, SLDC and PSTCL, SLDC.	POWERGRID	Jan 2018	
2.2.9.1	Requirement of E&M card for fiber home PDH/SDH system atRVPNL	POWERGRID	Jan 2018	
2.2.9.2	Repairing of HBL Make DCPS Installed by M/S COMMTEL:	POWERGRID	Jan 2018	
2.2.9.3	<b>Issuing of Letter Regarding Transfer of Assets to the States Under ULDC :</b> The sub-committee advised POWERGRID and all the members to take necessary action to settle the long pending issue by March, 2018	POWERGRID and all States	March 2018	
2.3.1	Replacement of S900 RTUs The sub-committee advised other members, who are procuring themselves, to take necessary action for timely replacement of S900 RTUs in their system. All the members were advised to submit action plan by 15th Jan,2018, for replacing S 900 RTUs in their system, to NRLDC and NRPC Sectt.	All Members	15.01.2018	HP-Signing of MOU with PGCIL is under consideration of management of HPSEBL.
2.3.2	<b>Charges for bay extension in Siemens RTU's at DTL&amp;HPSEB:</b> POWERGRID informed that they would provide bay extension charges for SIEMENS RTU by 15.01.2018	POWERGRID	15.01. 2018	.

2.3.3	<b>Flip Flop of HVPNL RTU data - I.</b> POWERGRID agreed to resolve by 26.12.2017	POWERGRID	26.12. 2017	
3.1.1	<b>Rollover to IPv6:</b> All the members to take timely action for migration to IPv6 in compliance to Govt. directions.	All STUS &SLDCs	At the earliest	HP-Under process
3.1.2	Weather data SIEMENS to connect whether data by Jan 2018	SIEMENS	Jan 2018	
3.2.1.1	HPSEB Latency Issue	SIEMENS	Jan 2018	
3.2.2.1	Interruption in publishing of SCADA data on SCADA Web Server:	SIEMENS	Jan 2018	
3.2.2.2	POWERGRID informed alternative route through 400KV Moga is not possible and requested PSTCL to arrange Third party inspection of earthing at the earliest. PSTCL informed that they would arrange third party audit and requested POWERGRID to arrange the cards.	POWERGRID & PSTCL	Jan 2018	Resolved.
3.2.3.1	EMS Issues: UPPTCL	POWERGRID & SIEMENS	Jan 2018	
3.2.3.2	OTS issues: UPPTCL	POWERGRID & SIEMENS	Jan 2018	UP-Still unresolved no progress so far
3.2.3.3	PDS issues: UPPTCL	POWERGRID & SIEMENS	Jan 2018	UP-Still unresolved no progress so far
3.2.3.4	recent outage of SCADA at SLDC, UP	POWERGRID & SIEMENS	Jan 2018	UP-Analysis report has not been submitted by SIEMENS so far
3.2.3.5	Maintenance of UPS system:	POWERGRID & SIEMENS	Jan 2018	
3.2.3.6	6 Monitoring of UPS Status & Alarms through SCADA:	POWERGRID & SIEMENS	Jan 2018	UP-No progress so far.



3.2.4.1	Website:-HVPNL	SIEMENS & NRLDC	Dec 2017	
3.2.4.2	Database Synchronization: - HVPNL	NRLDC	MONTHLY	UP-Irregular as problems faced in data sync. remains pending for longer period. Domain database sync. with DTL is pending since 17-03-2017. SLDC & Display sync. with NRLDC & DTL are pending since 12.01.2018 & 17.03.2017 respectively.
3.2.5.1	Arranging regular periodic meeting with concerned vendors of ULDC Ph-II to resolve issues. POWERGRID representative agreed to call bimonthly meeting with all concerned	POWERGRID	bimonthly	
3.2.5.2	BBMB and UP were in process of testing their back-up SLDCs, wherein they were facing some issues. M/s Siemens representative assured to resolve the issues by Jan., 2018.	SIEMENS	Jan 2018	UP- Networking still incomplete. Communication links for Operator Consoles, Remote Consoles still not available.
3.2.5.3	All the SLDCs would test back-up SLDC at least once in every six month. The sub-committee advised all the members to complete this exercise by 31st March, 2018	ALL SLDCs & SIEMENS	31.03.2018	<i>HP- under process UP-Architecture still incomplete.</i>
4.1.1	<b>Non-Availability / Reliability of Telemetry</b> The sub-committee advised all the concerned utilities to resolve the issues within the agreed time line and send report to NRLDC and NRPC Sect	All concern Utilities	Jan 2018	No report Received at NRPC Sectt.
4.1.2	<b>Telemetry digital status”</b> • The sub-committee advised all the utilities to ensure availability of	NRLDC & SLDCs	Monthly periodic	No report Received at NRPC Sectt.

	<p>digital telemetry.</p> <ul style="list-style-type: none"> <li>It was also decided that NRLDC and SLDCs would rigorously monitor the status of telemetry in the Gen. Stations &amp; Grid substations in their control area and send periodic reports to all concerned for taking remedial action. A copy of the report should also be sent to NRPC Sectt. for further follow up with higher management of respective utilities.</li> </ul>			UP-No improvement in Telemetry of digital as yet.
4.1.4	RGMO Telemetry at NRLDC:	All Generating station except NHPC & THDC	31.01 2018	
4.2.1	Calculation of Actual Drawl in SCADA: between HVPNL and BBMB	HVPNL and BBMB	15.01.2018	
4.3.1	Procedure approved by NRPC in 36th NRPC meeting	All SLDCs	Periodically as per procedure	
5.1.1	NTPC informed that extension work of building at Dadri was going on and work would be completed by end of Feb' 2018, then POWERGRID can install PMUs in Dadri NTPC control centre.	NTPC & POWERGRID	Feb 2018	
5.1.2	<b>Status of the installation of URTDSM system.</b> Completion of the project in all respect by March,2018..	POWERGRID	March 2018	
5.1.3	Information regarding change in location of installed PMUs may be sent to POWERGRID, NRLDC and NRPC Sectt. latest by 15th Feb,2018, after which no request for any relocation would be	POWERGRID and All Gen and Transmission utilities	15.02.2018	No request received by NRPC Sectt.

	accepted.			
5.1.4	<b>Installation of URTDSM Equipment in BBMB:</b> POWERGRID informed that New UPS would be supplied in Feb, 2018, before that BBMB should ensure readiness of UPS room for installation	BBMB	Feb 2018	
5.5	Disposal of Old and Obsolete SCADA Equipment of ULDC-I Scheme	POWERGRID	31.03.2018	UP-No communication has been received from Power grid.