

## उत्तर क्षेत्रीय विद्युत समिति

### NORTHERN REGIONAL POWER COMMITTEE

#### ADDITIONAL AGENDA-1

#### FOR

#### 44<sup>th</sup> MEETING OF TECHNICAL COORDINATION SUB-COMMITTEE

#### &

#### 47<sup>th</sup> MEETING OF NORTHERN REGIONAL POWER COMMITTEE

Time & Date of TCC meeting: 10:00 Hrs. on 10.12.2019

Time & Date of NRPC meeting: 10.00 Hrs. on 11.12.2019

Venue: Jaisalmer

### **B . O P E R A T I O N A L I S S U E S**

#### **B.20 Requirement of good quality input data for State Estimator/Energy Management System (EMS) /Dynamic Security Assessment model for Indian power system (agenda by NRLDC)**

B.20.1 SCADA/EMS upgradation at NLDC is scheduled to be completed by mid-2020. Along with the regular SCADA/EMS upgradation with standard features like state estimator and contingency analysis etc., and for the first time, Automatic Generation Control (AGC) and Dynamic Security Assessment (DSA) are envisaged to be operationalised at NLDC.

B.20.2 SCADA data gets telemetered from the Remote Terminal Units (RTUs) located at various locations in the grid. However, proper telemetry is not available from many substations which has impact on successful state estimation. It is a well-known fact that not using State Estimation can lead to poor visualization and Situational Awareness which can further cause catastrophic conditions in the grid. There is limited awareness on effective use and tuning of State Estimation and other EMS tools at many LDCs in India. Expert Group formed by POSOCO led by Dr. NDR Sarma listed out several findings regarding State Estimation in India. The report is available in POSOCO website at <https://posoco.in/download/report-on-state-estimator-public/?wpdmdl=531>

B.20.3 Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017 have defined role and responsibilities of various organizations and their linkages to ensure good quality communication. The regulation is available at the link <http://www.cercind.gov.in/2017/regulation/134.pdf>. Enforcement at both national level and state level with regard to availability of required telemetry for SCADA system is of prime importance. Availability of SCADA and quick restoration of data (in case it is not available), is the key input for effective running of

State Estimation and other EMS tools at RLDCs and SLDCs.

B.20.4 In the upcoming SCADA/EMS at NLDC, Dynamic Security Assessment (DSA) tool is also envisaged to be built-in. EMS has to provide an updated and converged state estimation/ powerflow case from the real-time state estimator to the DSA application as an input. DSA application has the capability for advanced study and simulation of the grid in real time, which would aid in situational awareness of the system operators. Poor data quality is observed from many substations, in particular at voltage levels of 220 kV and below. The situation is more alarming at several state-owned substations, where data availability percentages are lesser compared with ISTS. Because of this, modelling of state estimator and DSA might have to be compromised at lower voltage levels. This may result in an all India model, which may not accurately simulate the power system behaviour under contingencies. Hence, follow up of SCADA telemetry is an important task at hand for all the relevant agencies.

B.20.5 From AGC point of view, telemetry of tie lines is very important with adequate redundant measurements. Incorrect SCADA values have an immediate and much larger impact on system security. The below link of ENTSOE-Europe provides a relevant case study emphasizing the importance of telemetry while using AGC. <https://www.entsoe.eu/news/2019/05/28/entso-e-technical-report-on-the-january-2019-significant-frequency-deviations-in-continental-europe/>

**Member may furnish the status of availability of telemetry at SLDC and RLDC level. The status of convergence of State Estimator module at State and Regional level and the network model implemented may be furnished.**

**B.21 Requirement of Unified Real Time Dynamic State Measurement (URTDSM) Scheme (agenda by PGCIL)**

B.21.1 URTDSM Project was approved in 27<sup>th</sup> NRPC meeting held on 13<sup>th</sup> July, 2012 & 30<sup>th</sup> November, 2012, under the scheme, WAMS System was to be implemented for NLDC, Backup NLDC (at Kolkata), NRLDC, ERLDC, WRLDC, SRLDC and all SLDCs.

B.21.2 However, due to space constraint at ERLDC, Kolkata for Backup System of National Load Dispatch Centre (NLDC), system could not be commissioned even though supply and installation of all hardware /software have been completed 15 months back.

B.21.3 It may be noted that there is a space constraint for installation of 120KVA UPS and ERLDC have confirmed that they will provide space in existing DG Room after renovation but renovation works are yet to be started.

B.21.4 Further UPS and Battery Banks were supplied one year back and without charging, battery life will also be impacted and that may cause problem in operation and vendor is also raising the issue repetitively.

**POSOCO may update the status of readiness of UPS room, so that New UPS could be commissioned and Back up NLDC system at ERLDC, Kolkata could be powered ON.**

**B.22 Signing of MoU between POWERGRID & HVPNL for HVPNL owned bays in POWERGRID Gurgaon & Jind substations (agenda by PGCIL)**

B.22.1 POWERGRID informed that HVPNL owned bays have been commissioned in POWERGRID Gurgaon and Jind substations, however, HVPNL is yet to sign MoU with POWERGRID as per prevailing practice & rates. POWERGRID has been pursuing HVPNL for signing of MoU for maintenance of bays. The details of HVPNL owned bays at POWERGRID S/s are as under:

**(i) Details of HVPNL owned bays at POWERGRID Jind SS**

<u>Bay no.</u>	<u>Type of bay</u>	<u>Date of commissioning</u>
1) Bay 401 (Kirori Ckt-1)	Line Main bay	31/12/2013
2) Bay 404 (Kirori Ckt-2)	Line Main bay	31/12/2013
3) Bay 402 (Kirori Ckt-1)	Line Tie bay	31/12/2013

**(ii) Details of HVPNL owned bays at POWERGRID Gurgaon SS**

<u>Bay no.</u>	<u>Type of bay</u>	<u>Date of commissioning</u>
1) Bay 408 (Dadulatabad Ckt-I)	Line Main bay	27/06/2013
2) Bay 409 (Dadulatabad Ckt-II)	Line Main bay	27/06/2013

B.22.2 HVPNL stated that there is some issue of difference in charges of HERC and CERC due to which the issue is long pending. He agreed that issue will be resolved at the earliest.

B.22.3 NRLDC highlighted the issue of coordination in real time information exchange and tripping reporting of substations having inter-utilities bays and advised to incorporate same in MoUs amongst the utilities.

B.22.4 During 43rd TCC and 46th NRPC meeting, NRPC/TCC noticed that issue is long pending since 2013 and asked HVPNL to resolve the issue and sign MoU by 15th October 2019.

B.22.5 MoU for HVPNL owned bays at Jind Sub Station is signed on 14.11.19, however MoU for HVPNL owned bays at Gurgaon Sub Station is yet to be signed.

**Members may kindly deliberate.**

**B.23 Requirement Frequent Tripping of 220kV Lines emanating from Meerut, Baghpat & Saharanpur Sub Station (agenda by PGCIL)**

B.23.1 POWERGRID informed that 134 nos. tripping took place since April 19 in the 220kV

line emanating from Meerut, Baghpat and Saharanpur, due to which heavy current is being fed through 400/220kV Transformers. The heavy fault current is reducing not only residual life of transformer but also useful life of 220kV switchgear equipment.

- B.23.2 UPPTCL informed that tree cutting is difficult in these areas and has become a law and order situation. He further stated that there was defective batch of Polymer insulator which is being replaced.
- B.23.3 POWERGRID proposed auto re-closure of all 220kV lines may be kept in “OFF” condition to avoid undue stress on transformers and in case of any tripping in future, line will be charged after clearance from UPPTCL. However, NRLDC stated that it is not advisable to switch off the auto reclosure as it will affect reliability of the entire system. POWERGRID again emphasized on damage of equipment due to heavy fault current being fed through it.
- B.23.4 During 43<sup>rd</sup> TCC and 46<sup>th</sup> NRPC meeting, NRPC/TCC recommended to form a committee of PGCIL and UPPTCL to analyse the trippings in the 220kV line emanating from Meerut, Baghpat and Saharanpur and resolve the issue at the earliest.
- B.23.5 Committee has been formed from PGCIL and UPPTCL, the complete details of tripping has been shared with UPPTCL, however reason of tripping in various lines emanating from Meerut, Baghpat and Saharanpur is yet to be shared with PGCIL.

**Members may kindly deliberate.**

## C . C O M M E R C I A L I T E M S

### **C.25 Maintaining the Letter of Credit for power supplied from NJHPS & RHPS (Agenda by SJVN)**

- C.25.1 Ministry of Power (MOP), GOI order no. 23/22/2019-R&R dated 28-06-2019 read with (I) Corrigendum has made it mandatory for the discoms to open unconditional Letter of credit, failure to comply with its order may result into non-injection of power to state utility as well as denial of Short term/long term access from the energy market.
- C.25.2 As per the Power Purchase Agreement, Beneficiaries is to submit a confirmed, revolving, irrevocable Letter of Credit in favour of SJVN for an amount equivalent to 105% of average monthly billing of preceding 12 months with appropriate bank as mutually acceptable to parties. The LC shall be kept valid at all the time during the validity of the Power Purchase Agreement.
- C.25.3 In compliance to the above, all the beneficiaries have submitted the Letter of credit except for PDD, J & K. LC submitted by PDD, J & K had expired on 13.11.2019. PDD, J & K may be asked to submit the LC of requisite amount Rs 16.75 Crore (for NJHPS) & Rs 6.71 Crore (or RHPS) on priority.
- C.25.4 Further, other beneficiaries are requested to renew their LC at least one week prior to the expiry of the Letter of credit, in compliance to MOP’s order.

**Constituent members may like to discuss .**

## D . I T E M S F O R N R P C

### **D.5 eOffice Implementation at NRPC Secretariat**

- D.5.1 In 43<sup>rd</sup> meeting of NRPC, held on 30<sup>th</sup> October, 2018, an agenda regarding implementation of e-office project in NRPC Secretariat, was placed before the Members of the Committee.
- D.5.2 Members were informed that for the implementation of e-office, connectivity through NIC NETWORK(NICNET), is a pre-requisite for its smooth functioning. After deliberation, the Committee approved an estimated cost as Rs. 45-50 Lakhs without any recurring cost for implementation of NICNET in NRPC secretariat.
- D.5.3 In pursuance to above decision, estimated cost for implementation of e-office in NRPC Secretariat, was sought from NIC. After conducting a survey through an empaneled agency viz. NICS, NIC gave total estimated cost of Rs. 81 Lakhs for establishment of LAN and wi-fi setup over NICNET vide their email dated 01<sup>st</sup> January, 2019 (**Annexure-D.5.1**).
- D.5.4 Simultaneously, NIC also advised NRPC sectt. to take up the matter with designated agencies (MTNL/POWERTEL/RAILTEL) for acquiring the leased lines. Accordingly, the matter was taken up with POWERTEL for acquiring 2 links of 100 Mbps each. M/s POWERTEL vide their letter dated 22<sup>nd</sup> February, 2019 (**Annexure-D.5.2**) gave an estimated cost of Rs 20.93 lakhs per year excluding taxes on recurring basis for initial 2 years and from 3<sup>rd</sup> year onwards, Annual Service Fees i.e. recurring charges equal to bandwidth charges, were to be levied. Besides, one-time charge @ Rs.10.465 lacs was also quoted as Bandwidth charges by POWERTEL, to be borne by NRPC secretariat.
- D.5.5 Since above cost proposed by NIC was going much beyond the estimated expenditure approved by NRPC, it was advised by NIC that NRPC Secretariat may look into the option of Virtual Private Network (VPN), which is available free of cost for the users having NIC email id, and in this scenario, NRPC Secretariat would have to bear cost for license of e-office package along with minimal recurring cost every month.
- D.5.6 In view of above, a meeting with NIC officials was held on 28.11.2019 at NRPC secretariat. Gist of the discussion is enclosed at (**Annexure-D.5.3**).
- D.5.7 As per discussion in the meeting approx. costing of the eOffice implementation is as below:
- (i) eOffice Premium Package: 17Lakhs excluding taxes (Approx.) for 5 years (0-100 Users)
  - (ii) Hardware deployment cost at NIC Shastri park: 1.20 Lakh excluding taxes (Approx.) Monthly [*Option-1*]

(iii) Hardware deployment cost at NDC Bhuwaneshwar: 1.20 Lakh excluding taxes (Approx.) Monthly- [Option-2]

(iv) Bandwidth requirement is minimum 8Mbps. NRPC would take action accordingly.

D.5.8 Keeping in view of above, it may be seen that the estimated expenditure for the complete installation is 35-40 lakhs for the first year from 2<sup>nd</sup> year to 5<sup>th</sup> year, it would have yearly recurring charges approx. 18 Lakh (considering bandwidth increase charges) which may be met from NRPC fund. Member Secretary, NRPC may be authorised to implement the project from NRPC fund.

**Members may please discuss and approve.**

**Annexure-D.5.1**

Subject: **Fwd: Estimated Cost and Solution/Survey Report for LAN and Wi-Fi Establishment over NICNET Connectivity for NRPC, Katwaria Sarai**  
 To: cck-shukla@nic.in  
 Date: 01-01-19 03:10 PM  
 From: RAVI PRADHAN <rp.pradhan@nic.in>  
 Sender: rp.pradhan@meity.gov.in

NRPC\_Solution\_Document\_28.12.2018.pdf (1.1MB)    Structured Cabling Solution Document-NRPC-28-12-20... (919KB)    Final Pricing NRPC Katwaria Sarai(01.12.2018).pdf (261KB)

----- Forwarded message -----  
 From: Chaitanya Shukla <cckshukla@nic.in>  
 Date: 01-Jan-2019 11:38 AM  
 Subject: Fwd: Estimated Cost and Solution/Survey Report for LAN and Wi-Fi Establishment over NICNET Connectivity for NRPC, Katwaria Sarai  
 To: Ravi Prakash Pradhan <rp.pradhan@nic.in>  
 Cc: Ashok <ashok.kr@nic.in>, Adarsh <adarsh.saiwal@nic.in>, Jaspal Singh <jaspal@nic.in>, Sunil Sehgal <s.sehgal@nic.in>

Dear Sir,  
 Greetings for New Year III  
 Kind find attached Networking solution proposal and estimated cost for Networking activities at NRPC after conducting joint survey with NRPC team at Katwaria Sarai premises.  
 Regards  
 C. K. Shukla

**From:** "Vikas Kumar" <vikas.kumar90@nic.in>  
**To:** "Chaitanya Shukla" <cckshukla@nic.in>  
**Cc:** "VIRENDRA PASRICHA" <pasricha@nic.in>, "Ashok" <ashok.kr@nic.in>, "Adarsh" <adarsh.saiwal@nic.in>, "Jaspal Singh" <jaspal@nic.in>, "Sunil Sehgal" <s.sehgal@nic.in>  
**Sent:** Monday, December 31, 2018 2:59:21 PM  
**Subject:** Estimated Cost and Solution/Survey Report for LAN and Wi-Fi Establishment over NICNET Connectivity for NRPC, Katwaria Sarai

Dear Sir,  
 As requested from the NRPC for establishment of LAN and Wi-Fi setup over NICNET at Katwaria Sarai Office, NICS SI (M/s Velocis) has done the required survey in consultation with NRPC official. Some brief highlights of proposed Network are:-  
 1. The Passive Backbone has been proposed on 6-Core MM OM4 OFC with dual(redundant) connectivity.  
 2. To incorporate High Availability and High Reliability two different ISPs has been proposed to terminate on two Routers and also the Core switches has been proposed on **High Availability and High Reliability mode**.  
 3. POE Switches has been proposed for Wi-Fi APs. The Wi-Fi APs will be controlled by NIC centralized Wi-Fi Controller.

The survey report along with solution document and estimated cost is attached herewith. The summary is as follows:-

S.No	Description	Total(Approx in Rs ) without GST	GST(@18%)	Total(Approx in Rs ) with GST
A	LAN ACTIVE INFRASTRUCTURE-Supply + Installation + 5yrs warranty Support (as per NICS RC)	₹ 2,610,845	₹ 469,952	₹ 3,080,797
B	Router , Servers and Access Points -(Through GeM)	₹ 1,673,729	₹ 301,271	₹ 1,975,000
C	LAN PASSIVE INFRASTRUCTURE- Supply + Installation + One year warranty Support (as per NICS RC)	₹ 1,262,348	₹ 227,223	₹ 1,489,571
D	Display Screen, Desktops , LAPTOP & Surveillance Camera's -(through GeM)	₹ 440,678	₹ 79,322	₹ 520,000
E	Full Time On-Site Support(Cost of Technically Qualified Manpower) for One Year(as per NICS RC)	₹ 480,000	₹ 86,400	₹ 566,400
TOTAL(Approx)		₹ 5,987,600	₹ 1,077,768	₹ 7,065,368
F	NICS Operative charges(@7%)			₹ 534,224
Grand Total Price(Inclusive of NICS Margin)				₹ 8,165,991/-

Submitted for further action.

Thanks and Regards,  
 Vikas Kumar,  
 STB, TL & LSD,  
 NIC-HQ, New Delhi,  
 Ph-011-24305652

**प्रेषक:** "Chaitanya Shukla" <cckshukla@nic.in>  
**प्राप्त:** "Vikas Kumar" <vikas.kumar90@nic.in>  
**प्रतिविधि:** "Ashok" <ashok.kr@nic.in>, "Adarsh" <adarsh.saiwal@nic.in>, "Jaspal Singh" <jaspal@nic.in>, "Sunil Sehgal" <s.sehgal@nic.in>  
**भेजें गए:** मंगलवार, 27 नवंबर, 2018 11:14:08 पूर्वाह्न  
**विषय:** Fwd: Reminder: estimated cost of survey for NICNET Connectivity

Dewar Vikash,

Contact Person details:

Shri R.P. Pradhan  
 SE(Commercial)  
 NRPC, Katwaria Sarai  
 (Near DST)  
 Contact no. 26868681

Pis depute somebody for survey work as per trailing mail from Ashok ji.

Thanx

ck shukla./

**From:** "ashok.k" <ashok.kr@nic.in>  
**To:** "Vikas Kumar" <vikas.kumar90@nic.in>  
**Cc:** "Adarsh" <adarsh.saiwal@nic.in>, "Sunil Sehgal" <s.sehgal@nic.in>, "Jaspal Singh" <jaspal@nic.in>, "Chaitanya Shukla" <cckshukla@nic.in>, "VIRENDRA PASRICHA" <pasricha@nic.in>, "Arpita" <arpita.barman@nic.in>  
**Sent:** Tuesday, November 27, 2018 10:28:16 AM  
**Subject:** RE: Reminder: estimated cost of survey for NICNET Connectivity

Dear Vikash



**Annexure-D.5.2**

**पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड**  
(भारत सरकार का उद्यम)  
**POWER GRID CORPORATION OF INDIA LIMITED**  
(A Government of India Enterprise)



केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सैक्टर-29, गुडगाँव-122 001, हरियाणा  
फोन : 0124-2571700-719, फ़ैक्स : 0124-2571760, 2571761 तार 'नेटग्रिड'  
Corporate Office : "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001. Haryana  
Tel : 0124-2571700-719, Fax : 0124-2571760, 0124-2571761 Gram : 'NATGRID'

संदर्भ संख्या / Ref. No.

**Proposal: C/Tel/NRPC Sect**

**Dt. 22.02.2019**

To,  
Kaushik Panditrao  
Northern Region Power Committee Sect,  
18-A, SJS Marg, Katwarai Sarai,  
New Delhi -110016

**Sub: Offer for provisioning of two 100 Mbps Leased Line Band Width Capacity from NIC CGO Complex Delhi and NC Shastri Park Delhi to NRPC Secretariat.**

Dear Sir,

This has reference to your email Dt. 22.02.19 regarding the above mentioned subject. Please find the offer for the same.

**NRPC Secretariat**, is requested to issue Purchase Order for this link at the earliest.

**Note: As Per clause 5 of the Offer, the Right of Way (ROW) permission for in building/premise work along with 24\*7 power supply, Rack space etc has to be arranged by NRPC Secretariat free of charge at the respective termination points. The commercials have been devised accordingly. In case any demand is raised on POWERGRID for above requirements for the in building/premise work, the same will be payable NRPC Secretariat. The responsibility for arranging ROW permission from concerned civic authority outside the premises will be the responsibility of POWERGRID.**

With best regards,

(Gaurav Agarwal)  
Manager (Telecom Marketing)



पंजीकृत कार्यालय : बी-9, कुतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110 016 दूरभाष : 011-26560121 फ़ैक्स : 011-26560039 तार 'नेटग्रिड'  
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016 Tel. : 011-26560121 Fax : 011-26560039 Gram : 'NATGRID'

**स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं**  
**Save Energy for Benefit of Self and Nation**





**Proposal**  
**For**  
**Provision of Bandwidth Capacity**  
**of 100 Mbps links**  
**from**  
**CGO Complex Delhi and NC Shastri Park Delhi**  
**To**  
**NRPC Secretariat**  
**Offered by:**  
**POWERTEL**

**POWER GRID CORPORATION OF INDIA LIMITED**  
(A Government of India Enterprise)  
B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016

Proposal: C/Tel/NRPC Sect

Dt: 22.02.2019

*Jitendra*  
**GAURAV AGARWAL**  
Manager (Telecom)  
Power Grid Corporation of India  
New Delhi

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4. **Terms and Conditions**
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6. **Validity of Offer**
7. **Communications**

JKY 3/11/19  
GAURAV KASHYAP  
Manager (Telecom)  
Power Grid Corporation of India Ltd.  
(A Govt. of India Enterprise)  
Plot No. 1, Sector 10, Gurgaon, Haryana - 122001

**1.0 Executive Summary**

**Benefits to Customer**

- Single Point of Contact
- 24 X 7 Callout facility
- Immediate enhancement of capacity
- High Reliability
- Interconnecting remote locations
- Special benefits for enhancing the bandwidth capacity

**2.0 Commercials:**

**2.1 Service Fee:**

**A. For 100 Mbps link from NIC CGO Complex Delhi to NRPC Secretariat, Katwaria Sarai New Delhi**

1	Bandwidth Charges	<b>Rs.1046500/-</b>
2	Total Service Fee for 1 <sup>st</sup> Year (excluding Tax)	<b>Rs.1046500/-</b>
3	Total Service Fee for 2 <sup>nd</sup> Year (excluding Tax)	<b>Rs.1046500/-</b>

Note: From third year onward Annual Service Fees (excluding taxes) shall be equal to Annual Bandwidth Charges (excluding taxes).

**Taxes & Duties:** All taxes, duties and levies as applicable from time to time in respect of the capacity offered to Customer shall be borne by Customer.

**B. For 100 Mbps link from NIC Shastri Park Delhi to NRPC Secretariat, Katwaria Sarai New Delhi**

1	Bandwidth Charges	<b>Rs.1046500/-</b>
2	Total Service Fee for 1 <sup>st</sup> Year (excluding Tax)	<b>Rs.1046500/-</b>
3	Total Service Fee for 2 <sup>nd</sup> Year (excluding Tax)	<b>Rs.1046500/-</b>

Note: From third year onward Annual Service Fees (excluding taxes) shall be equal to Annual Bandwidth Charges (excluding taxes).

**Taxes & Duties:** All taxes, duties and levies as applicable from time to time in respect of the capacity offered to Customer shall be borne by Customer.

**2.2 Service Period:** The offer is for a minimum period of 2 years.

**2.3 Payment Terms:**

**2.3.1**

- a) Annual in advance.
- b) The Service Fee along with applicable taxes, duties and levies, shall be payable within 15 (fifteen) days from the date of the Invoice.

GAURAV K. SARWAL  
 Jitendra  
 21/12/19  
 Manager (Telecom)  
 Power Grid Corporation of India Limited  
 (भारत विद्युत निगम लि.)  
 8-9, Connaught Place, New Delhi - 110028

- c) Delayed payments shall attract simple rate of interest @ 10% per annum and POWERGRID is also entitled to terminate the services in case of non-payment of service fee, after serving 15 days Notice to Customer.

**2.3.2 RTGS:**

- a) Customer will furnish link wise details of payment made to POWERGRID and also TDS certificate.
- b) POWERGRID in turn will furnish link wise payment received from Customer with taxes and duties at the end of corresponding financial year for which advance was paid.

**3.0 Delivery Schedule:**

POWERGRID shall provision the offered capacity within **04-06 weeks** after receipt of Purchase Order from Customer.

**4.0 Terms and Conditions:**

- 4.1 **Service Period:** The capacity is offered for a minimum period of **two (2) years** duration and same can be extended further on mutually agreed terms and conditions. However, in case Customer requires termination of services before the expiry of the service period, then Customer shall serve 30 days advance notice or pay 30 days service fee thereof to POWERGRID. And, in case of termination of services before the expiry of the service period BandWidth Charges shall be payable on pro rata basis depending on the date of Termination of the Link.
- 4.2 POWERGRID will provide Ethernet interfaces at Points of Presence (POPs) at both the locations.
- 4.3 **Uptime:** POWERGRID shall provide an annual uptime of **99.5%** excluding 0.5% scheduled service maintenance except for force majeure conditions and reasons attributable to Customer and/or National Informatics Centre (NIC). For availability less than 99.5%, service credit for the down time shall be given to Customer on pro-rata basis at the end of the year.
- 4.4 **Hardware:** POWERGRID shall provide connectivity from its equipment installed at Customer's Point of Presence (POP) for providing capacity upto 100 Mbps. If the capacity is increased at any location additional hardware shall be provided at extra cost as per mutually agreed terms and conditions.
- 4.4.1 The "**Customer Premise Equipment (CPE)**" i.e the Equipment installed by POWERGRID at Customer's POP belongs to and is a property of POWERGRID and Customer uses it on rent. Customer should provide power supply for the functioning of the same. The CPE must remain in a fixed location. The safekeeping and protection of the CPE placed in the Customer's premises is responsibility of Customer. Customer is responsible to protect the CPE from misuse, theft or any other damages. In the event of loss or damage, Customer is liable to reimburse the full cost (market price of the CPE) or to the extent of damage there of.
- 4.4.2 POWERGRID is entitled to discontinue services and take back the equipment from the Customers' premises in case of non-payment / non-adherence to the terms and conditions of this offer by Customer.

22/12/19  
श्रीधर  
श्रीधर  
Manager (Telecom)  
Power Grid Corporation Ltd.  
(भारत की एक सार्वजनिक कंपनी, भारत में)  
22, Connaught Place, New Delhi, India

- 4.5 The capacity provided shall be used as permitted by GOI or any Statutory Authority and shall not be utilised for any other type of service without POWERGRID's written consent. The licenses shall be kept in force and effect under relevant law and regulation as are required to utilise the capacity.
- 4.6 The capacity provisioned shall not be used by Customer for any illegal, immoral purpose & the user shall indemnify POWERGRID in respect of any liability incurred by POWERGRID in this respect. POWERGRID shall not be a party to any dispute or claim what so ever between Customer & its customers.
- 4.7 Capacity offered shall be used ensuring that objectionable, obscene, unauthorised or any other content, messages or communications infringing copyright, Intellectual property right and international & domestic cyber laws, in any form or inconsistent with the laws of India, are not carried in the network.
- 4.8 This offer is subject to statutory regulations in force including any licence there under & if any provision of this offer is inconsistent with same, the same shall be modified accordingly.
- 4.9 This offer is subject to your possessing the requisite license for availing above service.
- 5.0 Facilities to be provided by Customer:** Customer / NIC shall provide the following to POWERGRID free of charge:-
- a) ROW Permission for laying of cables / installation of equipments inside the premises of their POPs.
  - b) Rack Space & 24\*7 Power supply at their POPs.
  - c) Air conditioned space and grounding for installation of telecom equipments of POWERGRID at their POPs.
  - d) Permit for carrying out installation and maintenance at their POPs as and when required.
- 6.0 **Validity of Offer:** This offer is valid for acceptance within **one (1) month** from the date of Issue.
- 7.0 Communications:**
- All Communications and correspondences pertaining to this offer shall be addressed to the following:
- Chief Manager (Telecom Marketing)**  
Power Grid Corporation of India Limited  
B-9, Qutab Institutional Area  
Katwaria Sarai, New Delhi-110 016  
Mob : 9873918456  
E-mail: ankur.bhandari @powergridindia.com

GAURAV AGARWAL  
Manager (Telecom)  
Power Grid Corporation of India Limited  
B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016

### **Annexure D.5.3**

#### **Gist of Discussion of the Meeting held on 28<sup>th</sup> November, 2019 at NRPC Sectt., New Delhi Regarding e-Office Implementation at NRPC Sectt.**

1. A meeting held on 28<sup>th</sup> November, 2019 with NIC officials to discuss the modalities for implementation of e-Office in NRPC Secretariat. List of participants is enclosed at Annexure-A.
2. In the meeting NIC officials from eOffice Project Division made a presentation on various packages/products of eOffice and steps involved in implementation thereof.
3. In the meeting modalities for implementation of package specific to NRPC Sectt. was discussed. After detailed deliberations followings were decided:
  - (i) eOffice premium software package would be purchased as MoP also having Premium package.
  - (ii) For hardware deployment following options emerged out:
    - Local Data Centre at NRPC premises
    - NIC data centre at Shastri Park, New Delhi this would require NICNET or VPN.
    - NDC, Bhuwaneshwar data centre they would allow NRPC public IP to access eOffice software, in this case VPN is not required. Moreover to maintain Recourses at NDC Bhuwaneshwar, SSL certificate & DNS required and manpower to maintain the hardware would also be required.
  - (iii) Costing of the Deployment is as below:
    - eOffice Premium Package: 17Lakhs excluding taxes (Approx.) for 5 years (0-100 Users)
    - Hardware deployment cost at NIC Shastri park: 1.20 Lakh excluding taxes (Approx.) Monthly
    - Hardware deployment cost at NDC Bhuwaneshwar: 1.20 Lakh excluding taxes (Approx.) Monthly- Quotation would be invited separately.
    - Bandwidth requirement is minimum 8Mbps. NRPC would take action accordingly.
  - (iv) NRPC would intimate their hardware deployment method to NIC thereafter NICS would generate PI for eOffice Premium package and hardware deployment. The package includes need based training.
  - (v) For scanning of legacy documents, a separate work order from NRPC would be required.
  - (vi) Digital Signature/eSign would be required and NRPC would take action accordingly.
  - (vii) It was informed that efforts may be made such that eOffice would be implemented in NRPC by 1<sup>st</sup> January 2020.
4. Meeting ended with vote of thanks to the chair.



Annexure-A**List of Participants**

<b>S.NO.</b>	<b>Name</b>	<b>Designation</b>	<b>Organisation</b>	<b>E-Mail</b>
1.	Sh. Robin Chauhan	Project Manager	NIC eOffice Project Division	pm2-eoffice@nic.in
2.	Sh. Kapil Kaushik	Team Lead	NIC eOffice Project Division	tl24.eoffice-nic@nic.in
3.	Sh. Naresh Bhandari	MS	NRPC	ms-nrpc@nic.in
4.	Sh. R.P. Pradhan	SE	NRPC	sec-nrpc@nic.in
5.	Sh. Bijendar Singh	Consultant	NRPC	-
6.	Sh. Manish Maurya	AEE( C )	NRPC	sec-nrpc@nic.in
7.	Sh. Kaushik Panditrao	AE(O)	NRPC	seo-nrpc@nic.in