

MINUTES OF PRE-BID MEETING

Brief Description of Procurement: Creation and maintenance of web-based Protection Database Management and PC based Protection setting calculation tool for Northern Region Power System network

Tender ID: 2018_CEA_377966_1

Date and Time of Pre-Bid Meeting: 24/09/2018 at 11:00 Hrs.

Venue of Pre-Bid Meeting: NRPC, 18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016

Representative of Prospective Bidder's:

1	Sh. H.R. Venkatesh	PRDC
2	Sh. Bipin Pandey	PRDC
3	Sh. Musab A.	DNVGL
4	Sh. Bipin kumar Singh	SISL

Representative of NRPC:

1	Sh. B.S. Meena	NRPC
2	Sh. Ratnesh Kumar	NRPC
3	Sh. Kaushik Panditrao	NRPC

Proceeding of the pre-bid meeting is as follows;

1. At the outset, EE(O), NRPC made a briefing about the scope and purpose of the pre-bid meeting.
2. Thereafter, prospective bidders were requested to put up their queries related to scope and terms & conditions given in the Bidding Document.
3. The queries from prospective bidders were appropriately responded. The responses to queries received from prospective bidders in writing and those asked during the meeting have been compiled as per **Annexure-A**.
4. Based on the discussion held during pre-bid meeting, certain clause of the bid document need to be amended. The amended clause vis-à-vis original clause are prepared & placed as **Annexure-B**.
5. The appropriate amendments to the Bid documents post pre-bid meeting will be issued separately.

Sr.No.	Para / Clause under Reference as per Bid Document	Content of Para / Clause under Reference as per Bid Document	Query/suggestions	Reply
1	Page No.20, Point No.6	Configuration management: Should have option to configure user defined levels for generating relay indexing.	Kindly clarify.	There has to be a provision of rights in hierarchal levels in an organization of user specified for different activities.
2	Page No.44, Point No.23	Life time free software upgrade is required as per ToR. It's only possible during the support period.	Kindly clarify.	The software upgrades are to be provided for Protection setting calculation Tool for Life Time so that software remains compatible with changing technology. In the AMC period, along with upgradation of Tool, Protection Database has to be updated incorporating settings for any new substation as well as updating of the topology of the power system network.
3	N.A	N.A	Do we have to model the detailed SLD or only EHV side? How many relay have to be modelled?	The SLD has to be modelled for both HV and LV side for substation. The data has to be collected for all the relays corresponding to the different types of protections mentioned in the Tender document. The exact no. of relays will be as per protection scheme employed in each substation.
4	N.A	N.A	Will NRPC provide any existing data for data base building?	Data as available with NRPC may be shared with the successful bidder for database building. However, the same shall also be collected from the substation & revalidated.
5	Page No.17,E.2, Point No.1	One time power system network model building and its updation till the end of support period and thereafter a provision for it being updated by the authorized user, for simulating the performance/ behavior of the protection system under all possible steady state and dynamic/transient state of the power system, including effect of changing one or more settings of the relays, apparatus and network topology.	Kindly explain.	The Protection Setting Database and Power system network topology need to be updated during project execution period as well as support period. The provision needs to be given for it being updated by authorized users as assigned by NRPC after the completion of support period.
6	N.A	N.A	How many updates or revision do we have to prepare for the model?	The topology and Protection Setting Database has to be updated during project execution as well as support period. The updating of Protection Database shall be done continuously. The frequency for updates or revision of network topology shall be as in when required according to addition or deletion of network element.
7	N.A	N.A	Whether Database and Protection Setting Calculation tool can be considered separate?	The database and Protection Setting Calculation tool is a complete package. The separate quotation for the same will not be entertained.

8	Section E.4 Web based protection database management system, Point 16 g	Should be capable of calculating and maintaining data of dependability index, security index and reliability index of protection performance.	This feature will be provided as part of the web based protection data management system. PDMS has a provision for creating and maintaining tripping incidence. The performance of the protection scheme during the incidence can be selected by the user. The following are the options available: \emptyset Failure to operate during internal power system fault \emptyset Correctly operated during internal power system fault \emptyset Undesired operation \emptyset Correct response of the switching device (after receiving trip signal) \emptyset Incorrect response of the switching device (after receiving trip signal) Based on above parameters selected by the user for each tripping incidence, the reliability, dependability and security indices are calculated. The expressions for calculating the indices are based on Publication No 328, "Manual on Power System Protection", CBIP, January 2018.	The formulae for dependability index, security index and reliability index of protection performance can be referred from CERC Standards of Performance for Inter-State transmission Licensees Regulation – 2012.
9	B.1 Synopsis Page Number 8, Point 5	Five Year Support period from the date of completion of Defect Liability Period	Generally for the software the defect liability period is one year from the delivering and installing the software which covers SAT. So the defect liability period is covered in the 18 months duration only. Kindly confirm with us.	The Defect Liability Period of 12 months is from 19 th to 30 th months as per the Physical Milestones (ITB clause no. 8). The broad activities to be undertaken during Defect Liability Period are mentioned at E.6 of tender document including updating of the protection and network database of the NR region on regular basis which shall include changes in system configuration, addition of new substations, generators, etc. The Price bid is to be submitted considering Defect Liability Period in the cost of the project. (Annexure-C, Part -A)
10	Annexure-A(I) a Generator Protection details	23 Gen Transformer OTI / WTI trip OTI & WTI trip shall be on different channels 24 Gen Transformer Buchholz / PRV / other mechanical	In power system simulation software, generator and transformers are modelled by their equivalent electrical model (impedance) and hence modelling and simulation of mechanical protection is not feasible in power	The mechanical protections need not be modelled in the Power System simulation software but data has to be collected for these protections and it shall be updated regularly.

Sl. No.	Para / Clause under Reference as per Bid Document	Content of Original Clause	Content of Amended Clause
1	Section E.2 Database Building Activities , Point 1	One time power system network model building and its updation till the end of support period and thereafter a provision for it being updated by the authorized user, for simulating the performance/ behavior of the protection system under all possible steady state and dynamic/transient state of the power system, including effect of changing one or more settings of the relays, apparatus and network topology. The protection setting calculation Tool, apart from having the functionality of Load-Flow, Short circuit and dynamic simulations, should also have the capability of importing network from system file of available load flow software viz. PSSE (SIEMENS), DSA tools, PSCAD etc. file for the rest of the National Grid.	One time power system network model building and its updation till the end of support period and thereafter a provision for it being updated by the authorized user, for simulating the performance/ behavior of the protection system under all possible steady state and dynamic/transient state of the power system, including effect of changing one or more settings of the relays, apparatus and network topology. The protection setting calculation Tool, apart from having the functionality of Load-Flow, Short circuit and dynamic simulations, should also have the capability of importing network from system file of available load flow software in common data exchange file formats such as IEEE/.csv/.xls/.txt/.xml or any other NRPC defined formats for the rest of the National Grid.
2	Section E.3 Protection Calculation Setting Tool, Point No 18	Calculating overload factor, unbalance factor and discrimination time (user defined/selectable) for each relay.	Calculating/checking overload factor, unbalance factor and discrimination time (user defined/selectable) for each relay.
3	Section G: General Conditions of Contract clause 49 Payment schedule	Part A : 10% on submission of High level design document for implementation of web based protection management system to NRPC. 25 % of the order value on completion of Protection database and substation SLD preparation for protection study 20 % of the order value on delivery of 52 No of base license of protection calculation engine along with 52 nos of laptops 20 % of the order value on delivery of web based database management system 5 % of the order value after completion of Training program on the desktop based protection setting calculation software. 5 % of the order value on completion of Site Acceptance Tests with one pilot state system 15 % of the order value after uploading all NRPC constituents data along with SLD and Go Live.	Part A : 10% on submission of High level design document for implementation of web based protection management system to NRPC. 20 % of the order value on delivery of 52 No of base license of protection calculation engine along with 52 nos of laptops. 15 % of the order value on completion of operational database and performing of load flow/ short circuit studies. 20 % of the order value on delivery of web based database management system 5 % of the order value after completion of Training program on the desktop based protection setting calculation software. 5 % of the order value on completion of Site Acceptance Tests with one pilot state system 10 % of the order value on completion of Protection database and substation SLD preparation for protection study. 15 % of the order value after uploading all NRPC constituents data along with SLD and Go Live.
4	Annexure J : Format of Bank Guarantee for EMD Note Point No. 3	EMD BG Should be from a schedule commercial bank Delhi branch.	EMD BG shall be from any scheduled commercial bank in favor of "NRPC Protection Database Fund" payable at Delhi.

5	Section C: Instruction to Bidders Page Number 11, point 8	<p>Sr No. Milestones for the project Duration (From date of award)</p> <ol style="list-style-type: none"> 1. Submission of all design documents for the Protection Setting Calculation Tool Implementation: 1st month 2. Delivery of required Hardware - servers: 3rd month 3. Delivery of 52 Nos base license of protection calculation Tool along with 52 no. of Laptops: 4th to 8th month 4. Protection database and substation SLD preparation for Protection Setting Calculation tool: 9th month 5. Supply of centralized web based database management system & customization: 10th to 11th month 6. Completion of Training program on the protection setting, building the network data for load flow and fault calculations: 10th to 17th month 7. Site Acceptance Test (SAT) with one pilot state system: 10th to 15th month 8. Go live with all Northern Region constituents data: 16th to 18th month 9. Defect Liability Period: 19th to 30th month 10. Continuation of technical support services up to 5 years from completion of Defect liability period: 31st to 90th month 	<p>Sr No. Milestones for the project Duration (From date of award)</p> <ol style="list-style-type: none"> 1. Submission of all design documents for the Protection Setting Calculation Tool Implementation: 1st month 2. Delivery of required Hardware - servers: 2nd month 3. Delivery of 52 Nos base license of protection calculation Tool along with 52 no. of Laptops: 3rd to 8th month 4. Protection database and substation SLD preparation for Protection Setting Calculation tool: Upto 15th month 5. Supply of centralized web based database management system & customization: 10th to 11th month 6. Completion of Training program on the protection setting, building the network data for load flow and fault calculations: 3rd to 15th month 7. Site Acceptance Test (SAT) with one pilot state system: 10th to 15th month 8. Go live with all Northern Region constituents data: 16th to 18th month 9. Defect Liability Period: 19th to 30th month 10. Continuation of technical support services up to 5 years from completion of Defect liability period: 31st to 90th month
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