29th May, 2017

RFP for *Remote SCADA Monitoring System Extension*

Replies to Bidder's Queries – No. 2

Sr. No.	Query	Response
1	What extent of support we can expect from NR? Will they provide all drawings, licensed Software's of Relays, logics & user manuals?	The User Manuals are available with QA Solar. Please refer Document No. H194-I-D-0225 Rev-2 which is part of RFP documents. They shall provide the due support required by successful bidder for making interfaces. We are not sure whether they shall provide the passwords etc, but we will make sure that NR technical representative shall remain deployed at site during the execution time.
2	Please confirm, If all devices like Relays, BCU, RTUs, Networking & Auxiliary system are in heathy condition & All devices are able to deliver data on IEC 61850 or any other substation standard protocols.	Confirmed.
3	Who will edit configuration in BCU & RTUs - if needed during commissioning of new SCADA.	NR Technical Representative shall remain deployed for technical support at site during project execution. However, his role would be supervisory/supportive only for interfacing needs of the new system with BCU & RTUs
4	Link of IEC60870-104 to NTDC is already established?? Or integration of following link with VSAT(within QA solar premises) will also part of RFP?	The VAST Link with NTDC has already been established. However, NPCC is unable to access the power plant data due to its system limitations regarding the port allocation for our power plant. The new SCADA Monitoring system shall also have the provision for NPCC to access the data when port allocation issues get resolved with NPCC.

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5	Concerning to lot-1, Please confirm, if new SCADA shall be installed in existing workstations or we need to consider new servers & workstation within our proposal.	New Server/Workstations need to be considered. Also consider one workstation for Head Office Lahore to review the plant data remotely.
6	From description detailed in tender document, we understand that BCUs, RTU & subsystem are already installed & commissioned by NR Electric with NR Propriety SCADA. Will old NR SCADA be completely dismantled once new SCADA is commissioned.	The Old NR SCADA system shall not be dismantled. The New SCADA monitoring system is an Add-On system which will provide the required monitoring functionality as specified in the Technical Specifications.
7	In LOT-II, Only Commissioning of panels and system is required, not any supplies are required to include in proposal? Please confirm if all drawings, manuals and supporting documents will be provided by QA Solar?	Only Commissioning is required. The available drawings of these panels have already been provided with RFP data.
8	Refer to attached signal list, it shows data of only HV system, not any signal of LV is provided in this list. Should we consider only the following list of signal needs to incorporate in system or we need to consider any data of LV, MV & auxiliary system in SCADA.	The Signal List provided in supporting documents is the approved signal list by NPCC (minimum Signals requirements of NTDC). The same was attached for information to the bidders. Please refer the Technical Specifications for detail data requirements for LV area which goes up to string level comparison of around 20,000 PV strings in PV area of Power Plant.
9	As 3 Nos. of NR-electric station manager are installed at collection system & to gather data of HV system. Could pls confirm us the protocol on which data of the following will be through on new SCADA.	The details are part of Technical Protocol of Comprehensive Automation System Doc No. H194-I-D-0225 Rev-2 which is part of RFP documents.
10	Can NR electric will able to provide us data on IEC61850 or Modbus??	The preferred mode of NR Electric Data sharing is on Modbus however, as per the Comprehensive Automation System Protocol document, the system is IEC 61850 compliant.

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		Details to be worked out by successful bidder during project execution stage with NR
11	For Dust system, separate server is installed by NR that are displaying dust & efficiency on basis of PVC string generation from collection box. Can you pls let us know, on which protocol NR will allow us to fetch data to new SCADA.	The existing Dust Detection System is temporary arrangement. The bidder shall provide this functionality in the new SCADA system as per SOW requirements. The preferred mode of NR Electric Data sharing is on Modbus however, as per the Comprehensive Automation System Protocol document, the system is IEC 61850 compliant. Details to be worked out by successful bidder during project execution stage with NR.
12	For owner metering, ISKARA meter is installed that need to be integrated in new SCADA. But can you pls confirm if Modbus TCP/IP Card is available on meter or share with us ordering code of meter to get my requirements.	The meters are of Model No. MT860 (Class0.2S) Energy Meter as per WAPDA specs P-202(5) Make: Iskraemeco, Slovenia. The meters are provided with standard communication ports. Please review the technical literature of meters online.
13	Forecast system & AGC/AVC system need commissioning, for that pls confirm if we need to use the similar server that are already been installed by NR or we should offer new servers to install software our software?	The bidder shall offer to install new servers/software to make the panel functional.
14	The Substation Control system(SCS) indicated above is already existing at the Power Plant & the supplier is NARI Electric & that this SCS system can communicate Substation data over IEC 870-5-101 & 104 protocol to Remote SCADA Monitoring system.	Confirmed.
15	This SCS is comprising of a local historian and data logger functionality.	Confirmed.
16	The Dispatching center shown in above diagram is the new Remote SCADA Monitoring system specified in Section-IV which need to be setup as part of this project.	Dispatch Center in the above-mentioned figure refers to existing remote SCADA System of NPCC Islamabad. However, the new Monitoring System as part of this project shall be installed as per Scope of Works requirements.

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17	Please confirm that LOT-II of the price schedule "Commissioning of Control Panels" is for commissioning of already supplied equipment and is a services scope only.	Confirmed.
18	Please confirm whether integration of the new SCADA system with the National Power Control Center (NPCC) SCADA EMS System in Islamabad is included in scope.	The new system should have the provision to integrate with NPCC Islamabad being on standard communication protocols. However, currently the data from our existing SCADA system is being communicated to NPCC via V-SAT link but is being unable to integrate in the NPCC SCADA system due to limitation in NPCC system.
19	Whether the SCS system at Power Plant level can forecast power and send that to Remote SCADA Monitoring system.	No. The same shall be part of this project.
20	There is a mention of remote monitoring functionality (point 5). Do you intend to have a remote Workstation which could connect to the new SCADA system or its just explains that SCADA shall support Server-client based architecture.	Yes, it is required to have a separate, dedicated remote work station in QA Solar Head Office, Lahore while server-client based architecture applies to local SCADA System in QA Solar Control Room at Bahawalpur site for various work stations there. Moreover, the web based system can be accessed from anywhere remotely and users with various access levels can access and import data and generate reports.
21	Is the requirement to send emails and sms to Operator staff upon any crossing of alarm threshold.(point6)	Yes. The system should provide the flexibility to the administrator to define the thresholds and alarm types for send emails/messages.
22	Can you elaborate on the point 11 "The system should have task assigning and scheduling functionality".	Task assigning and scheduling functionality relates to Ticketing System with assignment of different tasks in the system and generation of alert notifications against such pre-defined tasks. Preventive maintenance schedules and corrective maintenance history is required to

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		be properly maintained for timely notifications against overlook of preventive maintenance schedules and repetition of faults causing same corrective maintenance again and again.
23	Can you elaborate on the point 12 "The SCADA system should have string comparison, analysis function".	SCADA System must be capable to continuously compare the power plant parameters and performance of equipment up to string level (19,756). Under performing equipment and strings must be clearly identified and tagged with reasons of low performance and alert notification must be generated to the power plant operator to timely check and rectify such faults to minimize generation loss. This performance comparison of every power plant component like PV Modules, Inverters and Box type transformers etc., All strings of identical structure are required to be compared with best performing ones in the group.