

Standard Bidding Document

Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.
(Non-Consultancy Services)

National

Single Stage-One Envelope



July 09, 2026

Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA),Resident Engineer o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).

Phone: +92-333-580-6800, Email: rekhanhwar.proc@gmail.com

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PROCUREMENT NOTICE

PROCUREMENT OF NON-CONSULTANCY SERVICES

1. The **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA)** has reserved Funds for the procurement planned for FY **2026-27**. The **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA)** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the “**Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.**” with the reference of “**P57950**”
2. The **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA)** invites Bids through **EPADS v2.0** from eligible Bidders registered on **EPADS v2.0** for provision of Non-Consultancy Services.
3. **Single Stage-One Envelope** Procedure of Principal Method of Procurement (i.e. Open Competitive Bidding) will be used by adopting **Quality and Cost Based Selection (QCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, and Instructions issued by the Authority (from time to time).
4. All Bids must be accompanied by a Bid Security described in Bid Security Section in Bidding Document in the form of **Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee, Demand Draft** or Bid Securing Declaration on the prescribed format described.
5. E-Bidding documents, containing detailed terms & conditions, specifications and requirements etc. are available on **e-Pak Acquisition and Disposal System (EPADS)** at **<https://epads.gov.pk/opportunities/federal/procurements/57950>**.
6. The e-bids, prepared in accordance with the instructions in the e-Bidding documents, must be submitted through **EPADS v2.0** on or before **Friday,**

July 24, 2026 10:36 PM. E-bids will be opened on the same day at **Friday, July 24, 2026 11:06 PM.** Manual submission of Bids shall not be entertained. Those vendors who have not yet registered on the new version of **EPADS v2.0**, may register themselves on <https://vendors.epads.gov.pk/>. A tutorial to explain the registration process is available at <https://www.youtube.com/watch?v=MNW6T38v7tc>

7. In terms of Rules 48 of Public Procurement Rules, 2004 Grievance Redressal Committee (GRC) is notified for the subject procurement and notification copy is available on the procuring agency's website and also available on **EPADS v2.0** as well as Authority's website at (www.ppra.org.pk).

Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power)
WAPDA), Resident Engineer
o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla
(District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).
+92-333-580-6800
rekhankhwar.proc@gmail.com



Instructions to Bidders

A. Introduction

1. Scope of Bids

1.1. The Procuring Agency (PA), as indicated in the **Bids Data Sheet (BDS)** invites Bids through **EPADS v2.0** for the provision of Non-Consultancy Services for as specified in the BDS and **in Section Evaluation Criteria, Specifications & Schedule of Requirements**. The name, identification, and number of items/deliverables are provided in the **BDS**. **Single Stage-One Envelope** procedure of the open competitive method shall be used. The successful Bidders will be expected to provide the services within the specified period and timeline(s) as stated in the **BDS**.

2. Source of Funds

2.1. Source of funds is referred in Clause-1 of Invitation for Bids.

3. Fraudulent & Corrupt Practices

3.1. As defined under Rule 2(1)(f) of the Public Procurement Rules, 2004.

4. Eligible Bidders

4.1. A bidder is eligible to participate in a procurement process if the bidder:

4.1.1. possesses or has access to the technical competence, financial resources, equipment and other physical facilities, personnel, managerial capability, experience and reputation necessary to complete the procurement contract;

4.1.2. has the legal capacity to enter into a procurement contract;

4.1.3. is not insolvent, in receivership, bankrupt or being wound up and its activities or affairs are not suspended or being administered under any Act, by a court or by a judicial officer;

4.1.4. is not the subject of legal proceedings for any of the matters mentioned in sub-rule (c);

4.1.5. has fulfilled or has made substantial arrangements satisfactory to the relevant authorities, to fulfil its obligations to pay taxes and social security (where applicable) other contributions of its employees; and

4.1.6. has not, or in the case of a company, its owners and beneficial owners, directors or officers have not, been convicted of a criminal offence related to:

4.1.6.1. its professional conduct; or

4.1.6.2. a bidder (or, in the case of a company, its key individuals such as owners, beneficial owners, directors, or officers) must not have engaged in any prohibited practice, such as fraud, corruption, collusion, or coercion, within the time period stated in the bidding documents, which can be up to three years before the start of the procurement process. Additionally, the bidder must not have been debarred (i.e., banned) from participating in public procurement processes in Pakistan or by any international organization or country. If they have, they are ineligible to participate in the current bidding.

4.2. The procuring agency may require a bidder participating in the procurement process to provide the prescribed documentary evidence or other information to satisfy itself that the bidder is qualified in accordance with the criteria in sub-clause (1).

4.3. A procuring agency shall set out in the bidding document all the criteria for qualification to be applied in accordance with sub-clause (1).

4.4. Except as permitted under the Ordinance, Rules and Regulations, the procuring agency shall not establish a criterion for eligibility of a bidder that:

4.4.1. discriminates against or among a bidder or against categories of bidders; or

4.4.2. is not required for the performance of the procurement contract; or

4.4.3. is not related to the avoidance or management of legal, reputational or economic risk to the procuring agency unless it is in the national interest to do so, and the criteria is set out in the bidding documents.

4.5. A procuring agency shall assess the eligibility of a bidder for participation in the procurement process against the criteria for qualification under sub-clause (1).

4.6. In the case of a joint venture, consortium, or association, all members shall be jointly and severally liable for the execution of the contract in accordance with the terms and conditions of the contract. The joint venture, consortium, or association shall nominate a lead member as nominated in the BDS,

4.7. who shall have the Authority to conduct all business for and on behalf of any and all the members of Joint venture, consortium, or association during the bidding process, and in case of award of contract, during the execution of the contract.

4.8. The appointment of the lead Member in the joint venture, consortium, or association shall be confirmed by submission of valid power of Attorney to the procuring agency.

4.9. Subject to the limits specified in the BDS, the procuring agency may allow bidders to participate in the form of a Joint Venture (JV). However, each party in the JV must individually meet the eligibility criteria specified in the BDS

4.10. No Bidder can be a sub-contractor while submitting a Bids individually or as a member of a joint venture in the same Bidding process.

5. Qualification of the Bidder

5.1. All Bidders shall provide in Section VI, Bid Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

B. Bidding Documents

6. Contents of Standard Bidding Document

6.1. The Services required, bidding procedure, and terms and conditions of the contract are prescribed in the bidding document. In addition to the Invitation for Bids, the bidding document which should be read in conjunction with any addendum issued by the Procuring Agency include:

Section I - Invitation to Bid

Section II Instructions to Bidders (ITB)

Section III Bid Data Sheet (BDS)

Section IV Eligible Countries

Section V Evaluation Criteria, Specifications, Schedule of Requirements, and Technical Specifications.

Section VI Bidding Forms

Section VII Fraudulent & Corrupt Practices

Section VIII - Material & Non-material deviation

Section IX General Conditions of Contract (GCC)

Section X Special Conditions of Contract (SCC)

Section XI Contract Forms

6.2. The Bidder is expected to examine all instructions, requirements, forms, terms and specifications in the bidding documents. Failure to furnish all the information required in the bidding document will be at the Service provider's risk and may result in the rejection of his bids.

7. Clarifications

7.1. Clarifications of the bidding documents may be requested in writing through EPADS v2.0 by any bidder up to three days prior to the deadline for the submission of bids.

The procuring agency shall respond promptly and in writing to any request by a bidder for clarification of the bidding documents and, in any event, no later than two days prior to the deadline for the submission of bids or proposals.

Responses to requests for clarification shall be communicated simultaneously and in writing to all bidders participating in the procurement proceedings.

No bidder shall be allowed to alter or modify his bid after the bids have been opened however, the procuring agency may seek and accept clarification to the bid that do not change the substance of the bid, through EPADS v2.0.

7.2. Procuring Agency's response will be uploaded on the EPADS v2.0, including a description of the inquiry.

7.3. Should the Procuring Agency deem it necessary to amend the bidding document as a result of a clarification, it shall do so following the procedure under **ITB 1.1.**

7.4. If indicated **in the BDS**, the bidder's designated representative is invited at the bidder's cost to attend a pre-bid meeting at the place, date and time mentioned **in the BDS**. During this pre-bid meeting, prospective bidder(s) may request clarification(s) regarding the schedule of requirements, the Evaluation Criteria or any other aspects of the bidding document.

7.5. Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by bidders, and the responses given, together with any responses prepared after the meeting will be uploaded on EPADS v2.0. Any modification to the bidding document that may become necessary as a result of the pre-bid meeting shall be made by the Procuring Agency exclusively through the use of an Addendum.

7.6. To assist in the examination, evaluation and comparison of Bids of the Bidders, the Procuring Agency may, ask any Bidder for a clarification of its bid including breakdown of prices, through EPADS v2.0. Any clarification submitted by a bidder that is not in response to a request by the Procuring Agency shall not be considered.

No change in the prices or substance of the bid shall be sought, offered, or permitted.

The alteration or modification in the bid which in any way affect the following parameters will be considered as a change in the substance of a

bid:

- 7.6.1. evaluation & qualification criteria;
- 7.6.2. required scope of work or specifications;
- 7.6.3. all securities requirements;
- 7.6.4. tax requirements;
- 7.6.5. terms and conditions of bidding documents; and
- 7.6.6. change in the ranking of the bidders.

From the time of bid(s) opening to the time of contract award, if any bidder wishes to contact the procuring agency on any matter related to the bid, it should do so in writing or through electronic form that provides record of the content of communication.

8. Amendment of Bidding documents

8.1. Before the deadline for submission of bids, the procuring agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder or pre-bid meeting may modify the bidding documents by issuing addendum.

8.2. Any addendum issued including the notice of any extension of the deadline shall be part of the bidding document and shall be uploaded on EPADS v2.0 as well as Authority's website. The procuring agency shall promptly publish the addendum at the procuring agency's website indicated in the **BDS**:

Provided that the bidder who had either already submitted his bid, shall have the right to withdraw his already submitted bid and submit the revised bid, prior to the original or extended bid submission deadline.

8.3. To give prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Procuring Agency may, at its discretion, extend the deadline for the submission of bids:

Provided that the Procuring Agency shall extend the deadline for submission of bids, if such an addendum is issued within last three (03) days of the bid submission deadline.

C. Preparation of Bids

9. Documents Constituting the Bids

9.1. The bids prepared by the bidders shall constitute the following components: -

9.1.1. Forms of bid and Bid Prices completed in accordance with ITB BDS, GCC and SCC;

9.1.2. Documentary evidence established in accordance with BDS that services to be provided by the bidder are eligible services, and conform to the bidding documents;

9.1.3. Documentary evidence established in accordance with BDS that the bidder is eligible and/or qualified for the subject bidding process;

9.1.4. Documentary evidence established, that the bidder has been authorized to provide the services;

9.1.5. Bid security or Bids Securing Declaration furnished in accordance with BDS; and

9.1.6. Any other document required in the BDS.

10. Documents Establishing Eligibility of the Services and Conformity to bidding documents

10.1. To establish the conformity of the Non-Consulting Services to the Bidding document, the bidder shall furnish as part of its bid the documentary evidence that services provided conform to the requirements.

10.2. Standards for the provision of the Non-Consulting Services are intended to be descriptive only and not restrictive.

11. Documents Establishing Eligibility and Qualification of the Bidder

11.1. Pursuant to BDS, the bidder shall furnish, as part of its bid, all those documents establishing the bidder's eligibility to participate in the bidding process and/or its qualification to perform the contract if its bid is accepted.

11.2. The documentary evidence of the bidder's eligibility to bids shall establish to the satisfaction of the procuring agency that the bidder, at the time of submission of its bid, is from an eligible country as defined in Section-IV titled as "Eligible Countries".

11.3. The documentary evidence of the bidder's qualifications to perform the contract if its bid is accepted shall establish to the satisfaction of procuring agency that:

11.3.1. the bidder has the financial, technical, and supply/production capability necessary to perform the Contract, meets the qualification criteria specified in BDS.

11.3.2. that the bidder meets the qualification criteria listed in the Bids Data Sheet.

12. Form of Bid

12.1. **The bidder shall fill the Form of Bid furnished in the bidding documents. The Bid Forms must be completed without any alterations to its format and no substitute shall be accepted.**

13. Bids Prices

13.1. The Bids Prices quoted by the bidder in the Forms of Bid and in the price schedule shall conform to the requirements specified or exclusively mentioned hereafter in the bidding document.

13.2. All items in the Schedule of Requirements must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced and neither explicitly mentioned, their prices shall be construed to be included in the prices of other items.

13.3. The Bid price to be quoted in the Forms of Bid shall be the total price of the bid, excluding any discounts offered.

13.4. The bidder shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total bid price of the services, it proposes to provide under the contract.

13.5. Prices quoted by the bidder shall be fixed during the currency of the contract and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and shall be rejected, unless otherwise price adjustment is permissible under Conditions of the Contract. (May be reviewed)

14. Price Adjustment

14.1. Price adjustment shall not be applicable.

14.2. Procuring agency may increase the remuneration of the human resources involved in non-consultancy services on annual basis as per agreement.

14.3. Procuring agency shall incorporate the provisions to allow wage rate in compliance with Federal Government's minimum wage notification, subject to the applicability in that case.

15. Bids Currencies

15.1. Prices shall be quoted in Pakistani Rupees unless otherwise specified in the BDS.

16. Bid Validity Period

16.1. Bid(s) shall remain valid for the period specified in the BDS after the bid submission deadline prescribed by the Procuring Agency. A Bid valid for a shorter period shall be rejected by the Procuring Agency as non-responsive. The period of bid validity will be determined from the complementary bid securing instrument i.e. the expiry period of bid security or bid securing declaration as the case may be.

17. Bid Security or Bid Securing Declaration

17.1. Unless otherwise specified in the BDS, the bidder shall furnish as part of its bid, in the amount and currency specified in the BDS or Bid Securing Declaration on the format provided in Section VI (Bid Forms) The scanned copy of the Bids Security shall be uploaded in the EPADS v2.0 while submitting bid, whereas the original forms of Bid Security shall be submitted to the procuring agency before the bid submission deadline. The bidder who failed to submit the original bid security before the submission deadline shall be disqualified straightaway.

17.2. The Bid Security or Bid Securing Declaration is required to protect the Procuring Agency against the risk of Bidder's conduct which would warrant the security's forfeiture.

17.3. The Bid Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in BDS, GCC and SCC are invoked.

17.4. Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible after the award of contract, however in no case later than thirty (30) days after the expiration of the period of Bid Validity prescribed by the Procuring Agency. The Procuring Agency shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, whichever of the following that occurs earliest:

17.4.1. the expiry of the Bid Security;

17.4.2. the entry into force of a procurement contract and the provision of a Performance Guarantee, for the performance of the contract if such a guarantee, is required by the bidding document;

17.4.3. the rejection by the Procuring Agency of all Bids;

17.4.4. the withdrawal of the Bid prior to the deadline for the submission of bids, unless the bidding document stipulate that no such withdrawal is permitted.

17.5. The Bid Security may be forfeited or the Bid Securing Declaration executed:

17.5.1. if a bidder:

17.5.1.1. withdraws its bid during the period of bid validity as specified by the Procuring Agency, and referred by the bidder in the Forms of Bid, except as provided for in the ITBs; or

17.5.1.2. does not accept the correction of errors, or

17.5.2. in the case of a successful bidder fails:

17.5.2.1. **to sign the contract in accordance with SCC; or**

17.5.2.2. **to furnish Performance Guarantee in accordance with BDS and SCC.**

17.6. The bid security shall be valid for a period specified in BDS. Bids with shorter bid security validity period shall be rejected straight away.

18. Alternative Bids by Bidders

18.1. Alternatives will not be considered, unless specifically allowed for in the BDS.

18.2. When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS and the method of evaluating different time schedules will be described in Evaluation and Qualification Criteria.

19. Withdrawal, Substitution, and Modification of Bids

19.1. Before Bids submission deadline, any bidder may withdraw, substitute, or modify his bid after it has been submitted.

20. Format and Signing of Bids

20.1. The bidder shall prepare and submit his bid with due diligence after carefully reading all the terms and conditions before submission through

EPADS v2.0.

20.2. Any interlineations, erasures, or overwriting shall be valid only if they are signed by the person(s) signing the forms of bid.

D. Submission of Bids

21. Submission of Bids through EPADS v2.0 before Dead deadline

21.1. The Technical and Financial Bids as the case may be, shall be submitted in the due portion of the EPADS v2.0, before bid submission deadline. The bid submission option shall be automatically disabled once the deadline is over.

21.2. The Procuring Agency may, under exceptional circumstances and at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents. In such a case, all rights and obligations of the Procuring Agency and the Bidders that were previously subject to the original deadline shall thereafter be subject to the revised deadline.

E. Opening and Evaluation of Bids

22. Opening & Evaluation of Bids by the Procurement Cell/Evaluation Committee

22.1. The Procuring Agencies to constitute odd number Bid Evaluation Committee for the purpose of bid opening and evaluation of all procurements. As per Rules 29 & 30 of Public Procurement Rules, 2004, The Procuring Agency is required to establish a Procurement Cell/Evaluation Committee which shall Evaluate the Bids in accordance with the evaluation criteria, terms and conditions given in the bidding documents.

22.2. The selection technique adopted shall be based on quality and cost, with 70% weightage assigned to quality and 30% to cost. The passing threshold for the technical bid shall be 70%.

23. Opening of Bids

23.1. The Bid Evaluation Committee of the Procuring Agency will open all bids through EPADS, in the presence of bidders' or their representatives who choose to attend, and other parties with a legitimate interest in the bid proceedings at the place, on the date and at the time, specified in the **BDS**. The Bidders' representatives present shall sign attendance sheet as proof of their attendance.

23.2. The bids shall be opened one at a time, and the following read out and recorded: (a) the name of the bidder; (c) the presence of a bid security, if required; and (d) any other details as the procuring agency may consider appropriate.

23.3. No bid will be rejected at the time of bid opening except for bids whose bid security has not been provided to the procuring agency before submission deadline.

23.4. The procuring agency shall prepare minutes of the bid opening. The record of the bid opening shall include, as a minimum: the name of the bidder and the bid price, if applicable.

24. **Confidentiality**

24.1. Information relating to the examination, clarification, evaluation and comparison of bids and recommendation of contract award shall not be disclosed to bidders or any other person(s) not officially concerned with such process, until the time of the announcement of the respective evaluation report.

24.2. Any effort by a bidder to influence the procuring agency processing of bids or award decision may result in the rejection of his bid.

25. **Preliminary Examination of Bids**

25.1. Prior to the detailed evaluation of bids, the procuring agency will determine whether each bid:

25.1.1. meets the eligibility criteria defined in **BDS**;

25.1.2. has been prepared as per the format and contents defined by the procuring agency in the bidding document;

25.1.3. is accompanied by the required securities; and

25.1.4. is substantially responsive to the requirements of the bidding document.

25.2. The procuring agency will confirm that the documents and information specified under **BDS, GCC and SCC** have been provided in the bids. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Bidders, the bids shall be rejected.

25.3. If a bid is not substantially responsive, it will be rejected by the procuring agency and may not subsequently be evaluated for complete technical responsiveness.

26. Examination of Terms and Conditions, Technical Evaluation

26.1. The procuring agency shall evaluate the technical aspects of the bids submitted in accordance with **BDS**, to confirm that all requirements specified in **Evaluation Criteria, Technical Specifications and Schedule of Requirements**, prescribed in the bidding document have been met without material deviation or reservation.

26.2. If after the examination of the terms and conditions and the technical evaluation, the procuring agency determines that the bid is not substantially responsive in accordance with **BDS**, it shall reject the bids.

27. Correction of Errors

27.1. Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows: -

27.1.1. if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the procuring agency there is an obvious misplacement of the decimal

point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;

27.1.2. if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and

27.1.3. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.

27.1.4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Forms of bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

27.2. The amount stated in the bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and, with the concurrence of the bidder that shall be considered as binding upon the bidder. If the Bidder does not accept the corrected amount, his bid will then be rejected, and the Bid Security may be forfeited or the Bid Securing Declaration may be executed.

28. Conversion to Single Currency

28.1. As per Rule 30 of Public Procurement Rules, 2004.

29. Evaluation of Bids

29.1. The procuring agency shall evaluate bids in accordance with Rule 30 of Public Procurement Rules, 2004 and compare only those bids determined to be substantially responsive.

29.2. In evaluating the Technical Bids of each Bidder, the Procuring Agency shall apply the evaluation criteria and methodologies specified in the Bid Data Sheet (BDS) and in accordance with the Statement of Requirements and Technical Specifications. No other evaluation criteria or methodologies shall be permitted.

29.3. In case of tie of bids, the bidders shall be provided an opportunity to offer their best and final monetary offer through EPADS. However, in no case

the rates shall be higher than the original financial bids.

29.4. The Procuring agency evaluation of a bid will take into account:

29.4.1. the bid price, excluding provisional sums and the provision, if any, for contingencies in the summary bill of quantities, but including day work items, where priced competitively;

29.4.2. price adjustment for correction of arithmetic errors in accordance with **ITB 6**;

29.5. converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with **ITB 7**;

29.6. The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

29.7. If these bidding documents allow bidders to quote separate prices for different lots, and the award to a successful bidder of multiple lots, the methodology of evaluation to determine the lowest evaluated lot combinations in the Form of Bid, is specified in the **BDS**.

30. Determination of Most Advantageous Bids

30.1. Selection technique will be adopted for determining the Successful Bid in accordance with the criteria referred in the **BDS** or prescribed in the separate section titled as Evaluation Criteria.

31. Abnormally Low Financial Bids

31.1. Procuring agency may reject a bid if it has determined that the price, in combination with other constituent elements of the bid, is abnormally low in relation to the subject matter of the procurement, such that it raises material concerns on the part of the procuring agency, as to the ability of the bidder to perform the procurement contract satisfactorily for the offered price.

A procuring agency shall not reject a bid as abnormally low under sub-clause (1) above unless the procuring agency -

31.1.1. requested in writing through EPADS from the bidder a written clarification of his bid, including a detailed price analysis of his bid price in relation to the subject matter of the procurement contract, scope, methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document; and

31.1.2. having taken account, the information provided by the bidder in response to a request under paragraph (a) and the information included in the bid, the procuring agency determines that the bidder has failed to demonstrate its ability to perform the procurement contract satisfactorily for the offered price.

The procuring agency shall promptly communicate to the bidder concerned its decision to reject the bid, including the reasons for the decision.

32. Rejection of Bids

32.1. As per Rule 33 of the Public Procurement Rules, 2004

33. Single Responsive Bid

33.1. The procuring agency may consider single responsive bid subject to underlying conditions of Rule 38(b) of the Public Procurement Rules, 2004.

34. Arbitration

34.1. As per Rule 49 of Public Procurement Rules, 2004.

F. Award of Contract

43. Criteria of Award

43.1. The procuring agency will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding document and who has been declared as most advantageous Bid.

44. Procuring Agency's Right to reject All Bids

44.1. The procuring agency reserves the right to reject all the Bids and to annul the procurement process at any time prior to acceptance of the bid(s), without thereby incurring any liability to the affected bidder(s).

44.2. Notice of the rejection of all bids shall be given promptly to all bidders that have submitted the bids. The procuring agency shall upon request communicate to any bidder the grounds for the rejection of his bid, but is not required to justify those grounds.

45. Notification of Award

45.1. Prior to the award of contract, the procuring agency shall issue a Final Evaluation Report giving justification for acceptance or rejection of the bids.

45.2. Bidder whose bid has been accepted, will be notified for the award by the Procuring Agency prior to expiration of the Bid Validity period through EPADS. The Letter of Acceptance will state the sum that the procuring agency will pay the successful bidder in consideration for the execution of the scope of works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

45.3. The notification of award will constitute the formation of the Contract, subject to the condition that bidder furnish the Performance Guarantee and signing of the contract.

46. Signing of Contract

46.1. Promptly after notification of award, Procuring Agency shall send the successful bidder the draft agreement, incorporating all terms and conditions as agreed by the parties to the contract. The successful bidder and the procuring agency shall sign the contract.

47. Performance Guarantee

47.1. After the receipt of the Letter of Acceptance, the successful bidder, within the specified time, shall deliver to the Procuring Agency a Performance Guarantee in the amount and in the form stipulated in the **BDS**

and SCC, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.

47.2. Failure of the successful bidder to comply with the requirement of **BDS, SCC and GCC** shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the procuring agency may make the award to the next ranked bidder or call for new bids.

48. Corrupt & Fraudulent Practices

48.1. Procuring Agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

G. Grievance Redressal & Complaint Review Mechanism

53. Constitution of Grievance Redressal

53.1. Procuring agency shall constitute a Grievance Redressal Committee (GRC) comprising of an odd number of persons with proper power and authorization to address the complaint. The GRC shall not have any of the members of Procurement Evaluation Committee.

54. GRC Procedure

54.1. Any aggrieved party or bidder as the case may be, may file grievance in accordance with Rule 48 of the Public Procurement Rules, 2004 and Redressal of Grievance Regulations, 2022

H. Blacklisting/ Debarment

55. Procedure for Blacklisting/Debarment

55.1. The procuring agency may initiate blacklisting proceedings against contractor/supplier in accordance with Rule-19 of the Public Procurement

Rules, 2004 , Mechanism for Blacklisting, Debarment Regulations, 2024 and Regulation on “procedure for filling and disposal of review petition under rule-19(3) of the Public Procurement Rules, 2004.





Bid Data Sheet

Bids Data Sheet (BDS)

The following specific data for the procurement of Non-Consultancy Services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

BDS Clause Number

ITB Number

Amendments of, and Supplements to, Clauses in the Instruction to Bidders

A. Introduction

BDS Clause Number 1

Name of Procuring Agency: **Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power) WAPDA)**

The subject of procurement is: **Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.**

Expected commencement date: **Monday, August 10, 2026**

BDS Clause Number 2

Financial year for the operations of the Procuring Agency: **2026-27**

Name and identification number of the Contract: **P57950**

BDS Clause Number 3

JV/Consortium or Association Allowed: **No**

Number of JV/Consortium Members: **Nil**

B. Bidding Documents

BDS Clause Number 4

The Bidders may seek clarifications through **EPADS v2.0**: Clarification Date: Wednesday, July 22, 2026

BDS Clause Number 5

Any addendum, in case issued, shall be published on **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA)** website and on **EPADS v2.0**.

BDS Clause Number 6

List of documents required along with the bid: No

BDS Clause Number 7

The qualification criteria to establish the supply / production capability of the bidder.

see Eligibility Criteria

BDS Clause Number 8

Services and Their related documents:

See section Required Services and Scope of Work

BDS Clause Number 9

Price schedule will be provided according to the format defined and acquired.

see section price schedule.

BDS Clause Number 10

Specifications:

see section of specifications.

C. Preparation of Bids

BDS Clause Number 11

The price shall be **Fixed**.

BDS Clause Number 12

Currency of the Bids shall be : **PKR**

BDS Clause Number 13

The Bids/Bid Validity period shall be: **120 Days**

BDS Clause Number 14

The amount of Bid Security shall be as defined in Bid Security Section for items and lots given in **BDS 6**

The Bid Security shall be in the form of: **Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee, Demand Draft**

BDS Clause Number 15

The Bids security shall be valid for twenty-eight (28) days beyond the expiry of the Bids validity period specified in the bidding documents, for example the bid validity is 90 days so the bid security shall be valid for $90+28 = 118$ days.

BDS Clause Number 16

Alternative Bids to the requirements of the bidding documents will not be permitted.

D. Submission of Bids

BDS Clause Number 17

Bid shall be submitted online on EPADS v2.0 whereas hard copy of the bid security should be submitted to the following;

o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa

(KP) (Province).

Bids that are not submitted on EPADS v2.0 shall be disqualified.

The deadline for Bids submission is: **Friday, July 24, 2026 10:36 PM**

E. Opening and Evaluation of Bids

BDS Clause Number 18

The Bids opening shall take place on **EPADS v2.0**.

Day : **Friday**

Date: **Friday, July 24, 2026**

Time : **11:06 PM**

BDS Clause Number 19

Selection technique adopted will be: **Quality and Cost Based Selection (QCBS)**

see Evaluation Criteria

F. Award of Contract

BDS Clause Number 20

The Performance guarantee shall: **10.00%**.

The Performance Guarantee shall be acceptable in the form of: **Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee**

21.

51.1

Arbitrator shall be appointed by mutual consent of the both parties.

G. Review of Procurement Decisions

BDS Clause Number 22

Grievance against this procurement shall be submitted online on EPADS v2.0.

Eligibility Criteria

Bidder's Type	Required Registration
Sole Proprietorship	FBR (NTN)
Partnership Firm	FBR (GSTN)
Company (Private Limited)	SECP
Company (Public Limited)	
Company (Holding Company)	
Company (Limited by Guarantee)	
State Owned Enterprise (Private Limited)	
State Owned Enterprise (Public Limited)	

Evaluation Criteria

Quality and Cost Based Selection (QCBS)

Technical Marks	100
Passing Marks	70
Technical Evaluation Criteria	
past experience of firm of 5 years= 10 past experience of firm of 10 years= 20 marks (Quantitative)(Doc Required)	20
key persons qualification, experience of 20 years per person= 10 marks (Quantitative)(Doc Required)	30
Understanding of works, methodology, Flow chart/ Gantt Chart. (Quantitative)(Doc Required)	20
List of similar completed projects in Generation Facility along with satisfactory completion certificates. (Quantitative) (Doc Required)	20
understanding of Generation Facility, AGC, SCADA 3 project. (Quantitative)(Doc Required)	10

Required Services

Lot Title : Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.

Bid Security : 270400 PKR

Position	Delivery Schedule	Quantity
Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU (ABB 560CMU04) with the Existing DCS (ABB Ac 800F) for Signal/data transmission/ Interfacing of KKPS with NGC islamabad	<p>Address: o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).</p> <p>Schedule: 120 Days</p> <p>Quantity: 01/job</p>	1/job
Replacement of Communication work station (PKKS3)	<p>Address: o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).</p> <p>Schedule: 120 Days</p> <p>Quantity: 01/job</p>	1/job

Position	Delivery Schedule	Quantity
Installation of Fire wall RTU/DCS gateway	<p>Address: o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).</p> <p>Schedule: 120 Days</p> <p>Quantity: 1/job</p>	1/job
software and license	<p>Address: o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).</p> <p>Schedule: 120 Days</p> <p>Quantity: 1/job</p>	1/job
spares	<p>Address: o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).</p> <p>Schedule: 120 Days</p> <p>Quantity: 1/job</p>	1/job

Related Services :

No



Services Specifications

Lot Title : Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.

Position: Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU (ABB 560CMU04) with the Existing DCS (ABB Ac 800F) for Signal/data transmission/ Interfacing of KKPS with NGC islamabad

Specifications / Requirements:

Extraction of available signal, their tagging, memory blocks and data from existing ABB DCS AC800F as per attached R4 Signals list (Annex-A) & Annex-B and its configuration/integration along with any hardwire configuration of signal not available is an integral part without interrupting plant operations or power generation loss. Any hardware required in this regard shall be arranged by vendor on his own.

Position: Replacement of Communication work station (PKKS3)

Specifications / Requirements:

Communication Server/Engineering Workstation (PKKS3) including replacement (industrial grade, core i7 processor, 16 GB RAM, 512SSD Built in communication interfaces, compatible windows with RTU configuration Software) software installation, database creation and signal configuration as per attached lists R4 (Annex-A) and Annex-B, license and accessories as required for successful SCADA-III. Configuration of RTU/ DCS / Communication Gateway must also include IP configuration, Host IPs whitelisting (if applicable), Default Gateway settings, Host Routing (if applicable) For clarity, Signals configuration must include signals database definition, signals mapping, signals addressing, scaling (if required), signals type definition, quantity, quality, accuracy, update rates, decimal resolution, time synchronization, signals transmission mode and gateway redundancy and switching. The RTU/ Communication Gateway shall support Sequence of Events (SOE) recording with time-tagged event buffering. In the event of communication failure, all events shall be stored locally in chronological order and automatically transmitted to the Master Station upon restoration of communication without loss of sequence or timestamps.

Position: Installation of Fire wall RTU/DCS gateway

Specifications / Requirements:

Installation of Firewall with RTU/DCS gateway as per attached NEPRA security of IT & OT regulation 2022 & ISMO's guidelines.

Position: software and license

Specifications / Requirements:

Vendor must provide all necessary software along with licenses keys for the RTU/ DCS Gateway/ Communication gateway system configuration and shall be perpetual. Back up configuration file for RTU.

Position: spares

Specifications / Requirements:

Title	Description
Configured ABB RTU 560CMU04 or compatible variant	1
power supply card 560PSU01	1

Scope of Work

Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU (ABB 560CMU04) with the Existing DCS (ABB Ac 800F/Freelance 2000) for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO Islamabad (As per Attached Signal lists)

Extraction of available signal, their tagging, memory blocks and data from existing ABB DCS AC800F as per attached R4 Signals list & Appendix-I and its configuration/integration along with any hardware configuration of signal not available is an integral part without interrupting plant operations or power generation loss.

Any hardware required in this regard shall be arranged by vendor on his own.

Communication Server/Engineering Workstation (PKKS3) including replacement (industrial grade, core i7 processor, 16 GB RAM, 512SSD Built in communication interfaces, compatible windows with RTU configuration Software) software installation, database creation and signal configuration as per attached lists R4 and appendix-I, license and accessories as required for successful SCADA-III.

For clarity, Signals configuration must include signals database definition, signals mapping, signals addressing, scaling (if required), signals type definition, quantity, quality, accuracy, update rates, decimal resolution, time synchronization, signals transmission mode and gateway redundancy and switching.

The RTU/ Communication Gateway shall support Sequence of Events (SOE) recording with time-tagged event buffering. In the event of communication failure, all events shall be stored locally in chronological order and automatically transmitted to the Master Station upon restoration of communication without loss of sequence or timestamps.

Training and capacity building of plant personnel shall be an integral part of the scope of work. The training program shall be primarily hands on and practical in nature, covering operation, configuration, maintenance, and troubleshooting activities,

supplemented by classroom instruction, presentations, and theoretical sessions.



Price Schedule

For Individual Positions

#	Position Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
1							
2							

For Lots

#	Lot Title	Total Lot Price (PKR)	Country of Origin
1	[Lot 1 Title]		





General Conditions of Contract

A. General

1. Definitions

1.1. Unless the context otherwise requires, the following terms whenever used in this Contract shall have the same meaning and shall be interpreted as indicated

1.1.1. "Applicable Law" means the laws and any other instruments having the force of law in the Government's Country, or in such other country as may be specified in the Special Conditions of the Contract (SC), as they may be issued and in force from time to time;

1.1.2. "The Contract" means an agreement enforceable by law;

1.1.3. "The Contract Price" means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations;

1.1.4. "The Services" means the work to be performed by the Contractor pursuant to this Contract and as prescribed in the Specifications and Schedule of Activities included in the Contractor's Bid;

1.1.5. "Ancillary Services" means those services ancillary to the provision of Services, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Contractor covered under the Contract;

1.1.6. "GCC" means the General Conditions of Contract contained in this section;

1.1.7. "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented;

1.1.8. "Day" means calendar day unless indicated otherwise;

1.1.9. "Effective Date" means the date on which this Contract comes into force and effect;

1.1.10. "The Contractor" means the individual or corporate body whose Bids to provide the Services has been accepted by the Procuring Agency;

1.1.11. "The Project Site," where applicable, means the place or places named in Bid Data Sheet and technical Specifications;

1.1.12. "Government" means the Government of Pakistan;

1.1.13. "Local Currency" means the currency of Pakistan;

1.1.14. "In Writing" means communicated in written form with proof of receipt;

1.1.15. "Completion Date" means the date of completion of the Services by the Contractor as certified by the Procuring Agency;

1.1.16. "Foreign Currency" means any currency other than the currency of the country of the Procuring Agency;

1.1.17. "Party" means the Procuring Agency or the Contractor, as the case may be, and "Parties" means both of them;

1.1.18. "Service" means any object of procurement other than goods or works;

1.1.19. "Subcontractor" means any entity to which the Bidder subcontracts any part of the Services.

2. **Applicable Law**

2.1. The contract shall be governed and interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.

3. **Language**

3.1. The Contract as well as all correspondence and documents relating to the Contract exchanged between the Contractor and the Procuring Agency, shall be written in the **English language** unless otherwise stated in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided these are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, this translation shall govern.

4. **Notices**

4.1. Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the SCC.

5. **Location**

5.1. The Services shall be performed at such locations as the Procuring Agency may approve and as specified in SCC.

6. **Authorized Representatives / Authority of Member in charge**

6.1. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Procuring Agency or the Contractor may be taken or executed by the officials specified in the SCC.

B. Commencement, Completion, Modification, and Termination of Contract

7. **Effectiveness of Contract**

7.1. This Contract shall come into effect on the date the Contract is signed by both parties and such other later date as may be stated in the SCC.

8. Commencement of Services

8.1. The Contractor shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.

9. Program schedule

9.1. Before commencement of the Services, the Contractor shall submit to the Procuring Agency for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

10. Starting Date/Expiration Date

10.1. The Contractor shall start carrying out the Services Five (05) days after the date the Contract becomes effective, or at such other date as may be specified in the SCC.

10.2. Unless terminated earlier pursuant to Clause **GCC 14** hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

11. Entire Agreement

11.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

12. Modification

12.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any modification(s) or variation(s) made by the other Party.

12.2. In cases of any modification(s) or variation(s), the prior written consent of the Procuring Agency is required.

13. Force Majeure

13.1. Definition

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Contractor and which makes a Contractor's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

13.2. No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

13.3. Extension of Time

Any period within which a Contractor shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

13.4. Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Contractor shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

14. Termination

14.1. By the Procuring Agency

The Procuring Agency may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause. In such an occurrence the Procuring Agency shall give at least thirty (30) calendar days' written notice of termination to the Contractor in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e);

14.1.1. If the Contractor fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;

14.1.2. If the Contractor becomes (or, if the Contractor consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;

14.1.3. If the Contractor fails to comply with any final decision reached as a result of arbitration proceedings;

14.1.4. If, as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;

14.1.5. If the Procuring Agency, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

14.2. By the Contractor

The Contractor may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Procuring Agency, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

14.2.1. If the Procuring Agency fails to pay any money due to the Contractor pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Contractor that such payment is overdue;

14.2.2. If, as the result of Force Majeure, the Contractor is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;

14.2.3. If the Procuring Agency fails to comply with any final decision reached as a result of arbitration;

14.2.4. If the Procuring Agency is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Bidder may have subsequently approved in writing) following the receipt by the Procuring Agency of the Contractor's notice specifying such breach.

C. Obligations of the Contractor

15. General

15.1. Standard of Performance

15.1.1. The Contractor shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Contractor shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Procuring Agency, and shall at all times support and safeguard the Procuring Agency's legitimate interests in any dealings with the third parties;

15.1.2. The Contractor shall employ and provide such qualified and experienced Experts and Sub-Contractors as are required to carry out the Services.

15.2. Law Applicable to Services

The Contractor shall perform the Services in accordance with the Contract and in accordance with the Law of Pakistan and shall take all practicable steps to ensure that any of its Experts and Sub-Bidders, comply with the Applicable Law.

16. Conflict of Interests

16.1. Contractor Not to Benefit from Commissions and Discounts

The remuneration of the Contractor shall constitute the Contractor's sole remuneration in connection with this Contract or the Services, and the Contractor shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Contractor shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

16.2. Contractor and Affiliates Not to be Otherwise Interested in Project

The Contractor agree that, during the term of this Contract and after its termination, the Contractor and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

16.3. Prohibition of Conflicting Activities

Neither the Bidder nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

16.3.1. during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract;

16.3.2. during the term of this Contract, neither the Contractor nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;

16.3.3. after the termination of this Contract, such other activities as may be specified in the SCC.

17. Insurance to be Taken Out by the Contractor

17.1. The Contractor(a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Sub-contractors', as the case may be) own cost but on terms and conditions approved by the Procuring Agency, insurance against the risks, and for the coverage, as shall be specified in the SCC; and (b) at the Procuring Agency's request, shall provide evidence to the Procuring Agency showing that such insurance has been taken out and maintained and that the current premiums have been paid.

18. Contractor's Actions Requiring Procuring Agency's Prior Approval

18.1. The Contractor shall obtain the Procuring Agency's prior approval in writing before taking any of the following actions:

18.1.1. appointing such members of the Personnel not provided by the Contractor;

18.1.2. changing the Program of activities; and

18.1.3. any other action that may be specified in the SCC.

19. Reporting Obligations

19.1. The Contractor shall submit to the Procuring Agency the reports and documents in the numbers, and within the periods as prescribed by the Procuring Agency.

20. Liquidated Damages

20.1. Payments of Liquidated Damages

The Contractor shall pay liquidated damages to the Procuring Agency at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Agency may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

20.2. Correction for Over-payment

If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Agency shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in SCC.

20.3. Lack of performance penalty

If the Contractor has not corrected a Defect within the time specified in the Procuring Agency's notice, a penalty for Lack of performance will be paid by the Contractor. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as specified in the Contractor

21. Performance Guarantee

21.1. Within the time stipulated in the acceptance letter from the Procuring Agency, the successful Bidder shall furnish the Performance Guarantee in shape and amount **specified in SCC**.

21.2. The proceeds of the Performance Guarantee shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

21.3. The Performance Guarantee shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring agency and shall be in the acceptable form as specified in **SCC**.

21.4. The Performance Guarantee will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless otherwise **specified in SCC**.

22. Sustainable Procurement

22.1. The Contractor shall conform to the sustainable procurement contractual provisions, if and as specified in the **SCC**.

D. Contractor's Personnel

23. Description of Personnel

23.1. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Contractor's Key Personnel. The Key Personnel listed by title as well as by name are hereby approved by the Procuring Agency.

24. Removal and / or Replacement of Personnel

24.1. Except as the Procuring Agency may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Contractor, it becomes necessary to replace any of the Key Personnel, the Contractor shall provide as a replacement a person of equivalent or better qualifications.

24.2. If the Procuring Agency finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Contractor shall, at the Procuring Agency's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Agency.

24.3. The Contractor shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

E. Obligations of the Procuring Agency

25. Change in the Applicable Law

25.1. If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Contractor, then the remuneration and reimbursable expenses otherwise payable to the Contractor under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred in the SCC.

26. Services and Facilities

26.1. The Procuring Agency shall make available to the Contractor and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference, at the times and in the manner specified in the Terms of Reference.

26.2. In case that such services, facilities and property shall not be made available to the Contractor, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Contractor for the performance of the Services, (ii) the manner in which the Contractor shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Contractor as a result thereof.

F. Payments to the Contractor

27. Contract Price

27.1. The price payable shall be in Pakistani Rupees unless otherwise specified in the SCC.

28. Terms and Conditions of Payment

28.1. Payments will be made to the Contractor according to the payment schedule stated in the SCC and as per actual invoice submitted by the Contractor.

28.2. Unless otherwise stated in the SCC, the advance payment shall be made against the provision by the Contractor of a bank guarantee for the same amount, and shall be valid for the period stated in the SCC. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Contractor have submitted an invoice to the Procuring Agency specifying the amount due.

29. Quality Control Identifying Defects

29.1. The principle and modalities of Inspection of the Services by the Procuring Agency shall be as indicated in the SCC. The Procuring Agency shall check the Contractor's performance and notify him of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Agency may instruct the Contractor to search for a Defect and to uncover and test any service that the Procuring Agency considers may have a Defect. Defect Liability Period is as defined in the SCC.

30. Correction of Defects, and Lack of Performance Penalty

30.1. The Procuring Agency shall give notice to the contractor of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.

30.2. Every time notice a Defect is given; the contractor shall correct the notified Defect within the length of time specified by the Procuring Agency's notice.

30.3. If the contractor has not corrected a Defect within the time specified in the Procuring Agency's notice, the Procuring Agency will assess the cost of having the Defect corrected, the contractor will pay this amount, and a Penalty for Lack of Performance.

31. Settlement of Disputes Amicable Settlement

31.1. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

32. Dispute Settlement

32.1. Arbitration

If any dispute of any kind whatsoever shall arise between the procuring agency and the contractor in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity or termination, or the execution of the contract, the parties shall seek to resolve any such dispute or difference by mutual consultation. If the parties fail to resolve such a dispute or difference even after negotiations or mediation, then the dispute shall be referred within fourteen (14) days in writing by either party to the Arbitrator, with a copy to the other party.

Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with **GCC sub-clause 32.1**, shall be finally settled by arbitration. Arbitration may be commenced prior to or after completion of the Contract. Arbitration proceedings shall be conducted in accordance with Arbitration Act 1940. Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless otherwise agreed. The Procuring Agency shall continue to pay the Contractor any undisputed amounts due under the Contract during the resolution of any dispute.



Special Conditions of Contract

SECTION VIII. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

Number of GC Clause

Amendments of, and Supplements to, Clauses in the General Conditions of Contract

Definitions

The Procuring Agency is: Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).

The Supplier is:

The title of the subject procurement is: Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project.

Number of GC Clause 2

Applicable/Governing Law:

The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan

Number of GC Clause 3

Language:

The language of the Contract, all correspondence and communications to be given, and all other documentation to be prepared and supplied under the Contract shall be in **English**.

Number of GC Clause 4

Notices:

The addresses for the notices are:

Procuring Agency:

Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer
o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).
+92-333-580-6800
rekhankhwar.proc@gmail.com

Contractor/ Bidder:

[Name, address and telephone number].

The Contractor/ Bidder's Representative(s)

[Name, address, telephone number and e-mail address]

Number of GC Clause 6.1

The Authorized Representatives are:

For the Procuring Agency:

Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer
o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).
+92-333-580-6800
rekhankhwar.proc@gmail.com

For the Bidder:

Name:

Designation:

Address:

Number of GC Clause 7

Effectiveness of the contract

The Contractor/Bidder shall be effective within days from the date of signature of the Contract by both parties

Number of GC Clause 8

Commencement of Contract:

The Contractor/ Bidder shall provide Non-Consultancy Services from the effective date of contract.

Number of GC Clause 10.2

Expiration of Contract:

The time period shall be

Number of GC Clause 14

Termination

In the event of termination of the contract due to any reason as already defined in the General Conditions of Contract, the Bidder shall be responsible for providing to the Authority the Services till the time of alternate arrangements.

Number of GC Clause 16

Conflict of Interest:

The Procuring Agency reserves the right to determine on a case-by-case basis whether the Bidder should be disqualified from providing services due to a conflict of a nature described in Clause GCC C2.

Number of GC Clause 20

Liquidated Damages

If the Bidder fails to provide services as required under the contract or in case of any data loss/data breach or any incident compromising the data security or other such failures related to any services, the Bidder shall pay to the Procuring Agency as Liquidated Damages at a rate of **0.10%** to **10.00%** of the Contract value, in accordance with the extent of performance failure & the cost of investigating such incidents as judged by the Authority.

Number of GC Clause 21

Performance Guarantee:

The amount of performance guarantee shall be 10.00% of the contract price in acceptable form of Pay Order, Banker's Cheque, Call at Deposit, Bank Guarantee

Number of GC Clause 27

Currency of Payment:

All the payment to be released to the contractor/Bidder shall be in Pakistani Rupees.

Number of GC Clause F

Payment terms:

Payment will be made to the Bidder against the procured Goods and services according to the actual invoice or running bills submitted by the Bidder against the services provided within the time given in the conditions of the contract.

Number of GC Clause F

Identifying Defects:

The Authority reserves the right at any time to inspect the premises of the provider to inspect the goods and monitor the goods being provided.

Inspections & Tests Requirements

For being Brand New, bearing relevant reference numbers of the equipment (Certificate from supplier)

For successful operation/ data transmission with ISMO at site after complete installation, testing and commissioning of the equipment (Installation, Testing and Commissioning Report by Procurement Committee / Inspection Team)

Delivery & Documents

Copies of the Supplier's invoice showing Goods'/work description, quantity, unit price, and total amount;

Job Completion certificate

Delivery Challan (if any)

Manufacturer's or Supplier's Valid Warranty Certificate;

Inspection Certificate issued by the Nominated Inspection committee (if any).

Number of GC Clause F 5 & 6

Following is the guidance for Dispute Resolution

- i. If any dispute of any kind whatsoever shall arise between the Authority and the Bidder in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Contract – whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within 14 (fourteen) days following a notice sent by one Party to the other Party in this regard.
- ii. At future of negotiation the dispute shall be resolved through mediation and mediator shall be appointed with the mutual consent of the both parties.
- iii. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The arbitrator shall be appointed by mutual consent of the both parties. The Arbitration shall take place in Islamabad, Pakistan and proceedings will be conducted in English language.
- iv. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however the both parties shall bear their own costs and lawyer's fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute.
- v. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to, during or after completion of the contract.

Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that the Authority shall pay the Bidder any monies due to the Bidder.

Arbitrator's fee:

The fee shall be specified in Pak Rupees, as determined by the Arbitrator, which shall be shared equally by both parties.

Appointing Authority for Arbitrator:

By the Mutual Consent or in accordance with the provisions of Arbitration Act, 1940, in case the parties fail to reach a consensus on the name of sole arbitrator, any party may submit an application to the Chief Justice Islamabad High Court for appointment of sole arbitrator. The Chief Justice IHC may appoint a former judge of any High Court or Supreme Court as the sole arbitrator to resolve the dispute between the parties.

Rules of procedure for arbitration proceedings:

Any dispute between the Authority and a Bidder who is a national of the Islamic Republic of Pakistan arising in connection with the present Contract shall be referred to adjudication or arbitration in accordance with the laws of the Islamic Republic of Pakistan including Arbitration Act 1940, however above provision shall prevail in referring the case to the Arbitrator.

Place of Arbitration and Award:

The arbitration shall be conducted in English language and place of arbitration shall be at Islamabad. The award of the arbitrator shall be final and shall be binding on the parties.





Bid Securing Declaration

Form 9: Bid Securing Declaration

Date: *[insert date (as day, month and year)]*

Bid No.: **P57950**

To: **Khan Khwar Hydel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid Securing Declaration.

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

1. have withdrawn or modified our Bid during the period of Bid Validity specified in the Form of Bid;
2. Disagreement to arithmetical correction made to the Bid price; or
3. having been notified of the acceptance of our Bid by the Procuring Agency during the period of Bid Validity, (i) failure to sign the contract if required by Procuring Agency to do so or (ii) fail or refuse to furnish the Performance Security or to comply with any other condition precedent to signing the contract specified in the Bidding Documents.

We understand this Bid Securing Declaration shall expire if we are not the successful

Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight (28) days after the expiration of our Bid.



Contract Form

SECTION IX: CONTRACT FORMS

THIS AGREEMENT made the ____ day of _____ 20____ between **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

(hereinafter called “the Procuring Agency”) of the one part and [name of Bidder] of [city and country of Bidder] (hereinafter called “the Bidder”) of the other part:

WHEREAS the Procuring Agency invited Bids for provision of goods, viz., **Configuration, Testing, Commissioning and Integration of ABB make Industrial Communication Gateway System/RTU with the Existing DCS for Signal/data transmission/ Interfacing of Khan Khwar Power Station with NGC/ISMO under SCADA-III Project. (P57950)** and has accepted a Bids by the Bidder for the provision of Goods in the sum of [contract price in words and figures] (hereinafter called “the Contract Price”).

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below:-

1. This form of Contract;
2. the Form of Bids and the Price Schedule submitted by the Bidder;
3. the Schedule of Requirements;
4. the Technical Specifications;
5. the Special Conditions of Contract;
6. the General Conditions of the Contract;
7. the Procuring Agency’s Letter of Acceptance; and

8. [add here: any other documents]

3. In consideration of the payments to be made by the Procuring Agency to the Bidder as hereinafter mentioned, the Bidder hereby covenants with the Procuring Agency to provide the Goods related services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Procuring Agency hereby covenants to pay the Bidder in consideration of the provision of Goods and the remedying of defects therein, the Contract Price or such other sum as may become payable under the

provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

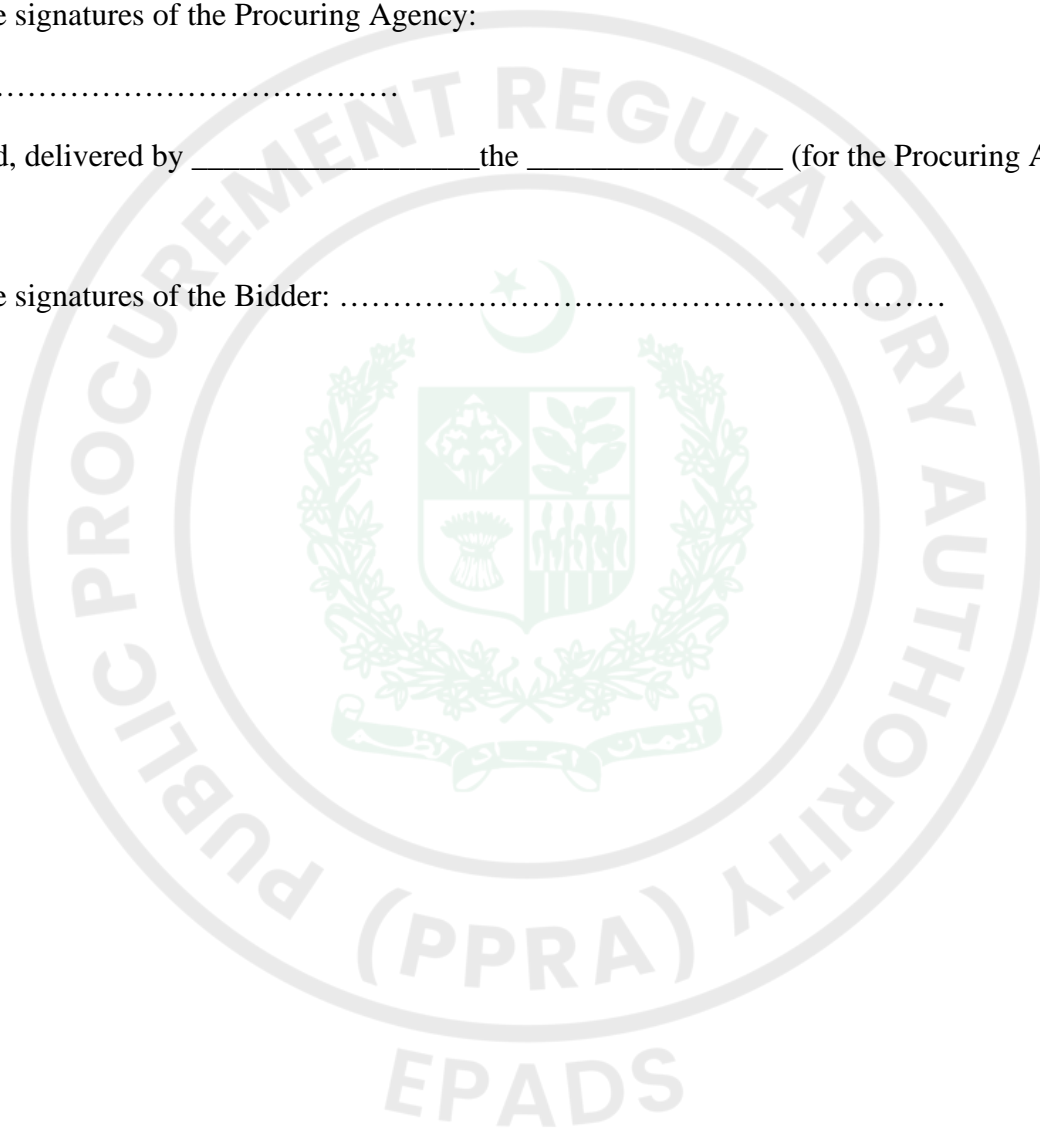
Signed, sealed, delivered by _____ the _____ (for the Procuring Agency)

Witness to the signatures of the Procuring Agency:

.....

Signed, sealed, delivered by _____ the _____ (for the Procuring Agency)

Witness to the signatures of the Bidder:





Integrity Pact

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract

Number: Contract

Value: Contract Title:

Dated:

[Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing [Name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fee etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [Name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [Name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.



Performance Guarantee Form

Performance Guarantee Form

To: **Khan Khwar Hydrel Power Station, Besham (General Manager Finance (Power) WAPDA), Resident Engineer o/o Resident Engineer, Khan Khwar Power Station, WAPDA, Besham, Shangla (District), Malakand Division (Division), Khyber Pakhtunkhwa (KP) (Province).**

WHEREAS *[name of Bidder]* (hereinafter called “the Bidder”) has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* for provision of Goods (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Bidder shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Bidder’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Bidders guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Bidder, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Bidder to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]





Annexure

Communication Network Diagram

Information (Read-Only)

See Form Under Additional Forms and Documents: **Communication Network Diagram** (page number: 72)

Signal List (Annex B)

Information (Read-Only)

See Form Under Additional Forms and Documents: **Signal List (Annex B)** (page number: 73)

NEPRA Guidelines for IT/OT Security

Information (Read-Only)

See Form Under Additional Forms and Documents: **NEPRA Guidelines for IT/OT Security** (page number: 75)

Existing RTU/DCS Pictures

Information (Read-Only)

See Form Under Additional Forms and Documents: **Existing RTU/DCS Pictures** (page number: 86)

Annex-A signal List

Information (Read-Only)

See Form Under Additional Forms and Documents: **Annex-A signal List** (page number: 90)



Procurement Forms

Contractor's Key Personnel Representative and Their Schedules

See Form Under Additional Forms and Documents: **Contractor's Key Personnel Representative and Their Schedules** (page number: 95)

Past Experience and Completed Contracts

Bidder must submit list of similar projects executed in an operational Generation Facility. Satisfactory completion certificate issued by previous employers must be submitted for verification.

See Form Under Additional Forms and Documents: **Past Experience and Completed Contracts** (page number: 99)

Historical Contract Non-Performance, and Pending Litigation and Litigation History

See Form Under Additional Forms and Documents: **Historical Contract Non-Performance, and Pending Litigation and Litigation History** (page number: 100)

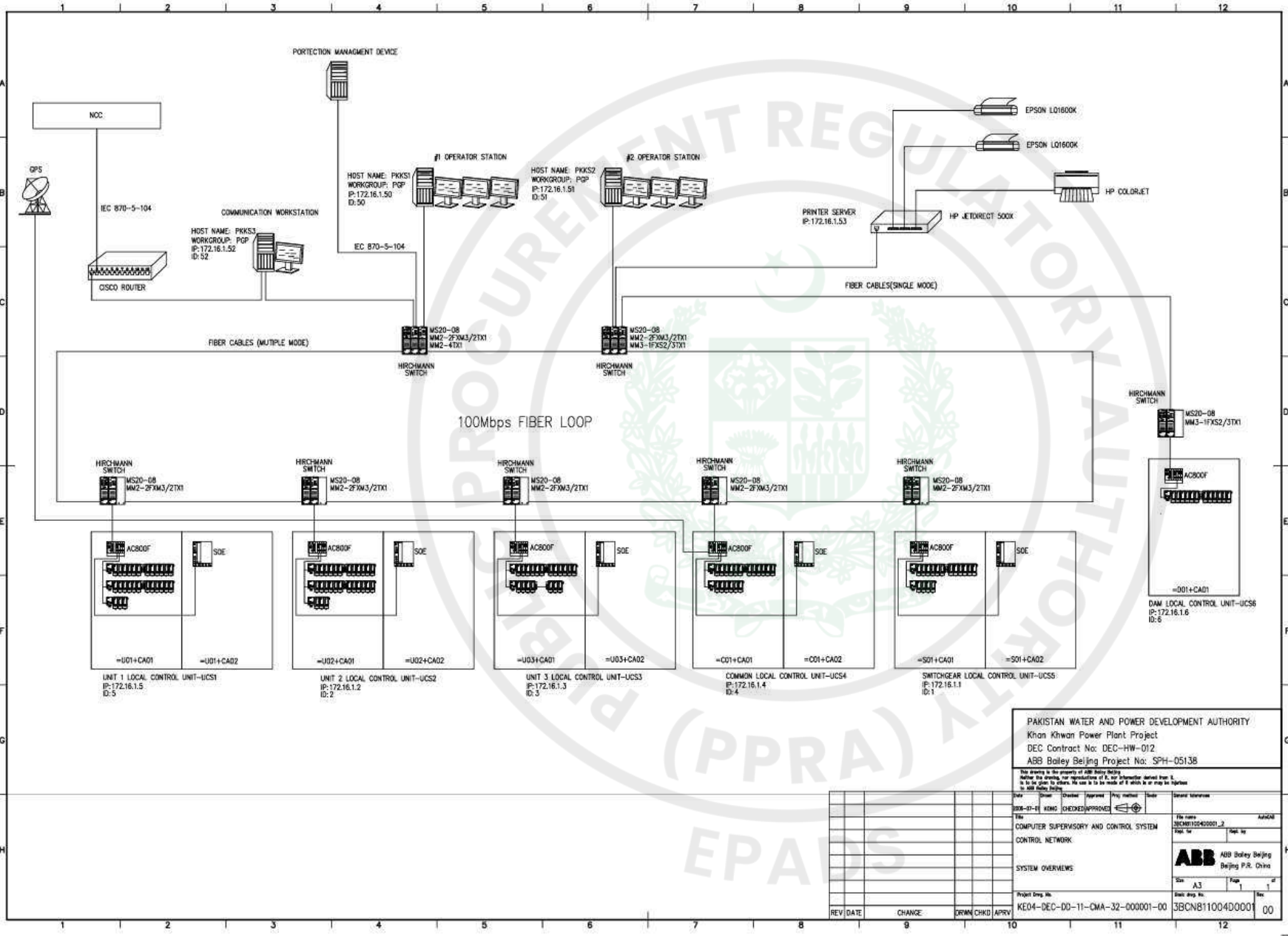
Current Contracts and Their Progress

See Form Under Additional Forms and Documents: **Current Contracts and Their Progress** (page number: 102)





Additional Forms and Documents



PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY
 Khan Khwan Power Plant Project
 DEC Contract No: DEC-HW-012
 ABB Bailey Beijing Project No: SPH-05138

This drawing is the property of ABB Bailey Beijing. Before the drawing, any reproduction of it, for whatever derived from it, is to be given to others. No use is to be made of it which is or may be injurious to ABB Bailey Beijing.

Date	Drawn	Checked	Approved	Proj. method	Scale	Owner Reference
2006-01-11	KONG	CHEKES/APPROVED				

File name	3BCNB11004D0001_3	AAZAN
Drawn by		
Scale	A3	Page 1 of 1
Project Draw. No.	KE04-DEC-00-11-CMA-32-000001-00	3BCNB11004D0001_00

Station Short Name		KHNK																				
Station Long Name		Khan Khuwar HPP																				
EQUIPMENT	Branch No. / TRAF0 Type	CONDITION	NPCC Nomenclature	Controlling CB	Measurands Units	STATUS INDICATIONS				ANALOGUE VALUES							COMMANDS					
						Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI	
AGC SIGNALS 11 KV GENERATOR G1																						
Regulation in Progress						Alarm SP+SOE			1												30	
Response Error						Alarm SP+SOE			1												30	
Generators Increase Load Limit Signals Indication						Alarm SP+SOE			1												30	
Generators Decrease Load Limit Signals Indication						Alarm SP+SOE			1												30	
GENERATOR INCREASE & DECREASE LIMIT INDICATION						Alarm SP+SOE			1												30	
Command Signal for Raise/ Lower MW						Command												1		46 or 47		
Local/Remote Permit Switch for AGC for G1						Alarm SP+SOE			1												30	
Interrupt Regulation						Command												1			46	
Cancel Error or No Error						Alarm SP+SOE			1													30
Setpoint MW for G1						Set Point														1	50	
Setpoint MW Feedback for Generator G1						Analog Measurement				1											13 or 14	
Ramp Rate (MW per Minute) G1						Analog Measurement											1				13 or 14	
Generator G1 Increase Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
Generator G1 Decrease Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
AGC SIGNALS 11 KV GENERATOR G2																						
Regulation in Progress						Alarm SP+SOE			1												30	
Response Error						Alarm SP+SOE			1												30	
Generators Increase Load Limit Signals Indication						Alarm SP+SOE			1												30	
Generators Decrease Load Limit Signals Indication						Alarm SP+SOE			1												30	
GENERATOR INCREASE & DECREASE LIMIT INDICATION						Alarm SP+SOE			1												30	
Command Signal for Raise/ Lower MW						Command												1		46 or 47		
Local/Remote Permit Switch for AGC for G2						Alarm SP+SOE			1												30	
Interrupt Regulation						Command												1			46	
Cancel Error or No Error						Alarm SP+SOE			1													30
Setpoint MW for G2						Set Point														1	50	
Setpoint MW Feedback for Generator G2						Analog Measurement				1											13 or 14	
Ramp Rate (MW per Minute) G2						Analog Measurement											1				13 or 14	
Generator G2 Increase Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
Generator G2 Decrease Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
AGC SIGNALS 11 KV GENERATOR G3																						
Regulation in Progress						Alarm SP+SOE			1												30	
Response Error						Alarm SP+SOE			1												30	
Generators Increase Load Limit Signals Indication						Alarm SP+SOE			1												30	
Generators Decrease Load Limit Signals Indication						Alarm SP+SOE			1												30	
GENERATOR INCREASE & DECREASE LIMIT INDICATION						Alarm SP+SOE			1												30	
Command Signal for Raise/ Lower MW						Command												1		46 or 47		
Local/Remote Permit Switch for AGC for G3						Alarm SP+SOE			1												30	
Interrupt Regulation						Command												1			46	
Cancel Error or No Error						Alarm SP+SOE			1													30
Setpoint MW for G3						Set Point														1	50	
Setpoint MW Feedback for Generator G3						Analog Measurement				1												13 or 14
Ramp Rate (MW per Minute) G3						Analog Measurement											1				13 or 14	
Generator G3 Increase Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
Generator G3 Decrease Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
AGC SIGNALS Plant																						
Regulation in Progress						Alarm SP+SOE			1												30	
Response Error						Alarm SP+SOE			1												30	
Plant Increase Load Limit Signals Indication						Alarm SP+SOE			1												30	
Plant Decrease Load Limit Signals Indication						Alarm SP+SOE			1												30	
Plant INCREASE & DECREASE LIMIT INDICATION						Alarm SP+SOE			1												30	
Command Signal for Raise/ Lower MW for Plant Controller						Command												1		46 or 47		
Local/Remote Permit Switch for AGC for Plant						Alarm SP+SOE			1												30	
Interrupt Regulation						Command												1			46	
Cancel Error or No Error						Alarm SP+SOE			1													30
Setpoint MW for Plant						Set Point														1	50	
Setpoint MW Feedback for Generator Plant						Analog Measurement				1												13 or 14
Ramp Rate (MW per Minute) Plant						Analog Measurement											1				13 or 14	
Plant Increase Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
Plant Decrease Limit (Measurement – MW)						Analog Measurement				1											13 or 14	
SITE DATA																						
Temperature		Degree Centigrade																				
HYDROLOGY																						
Forebay Level/ Pond Level / Reservoir Level		meters or feet																				
Tail Race Level		meters or feet																				
Barrage Level (if any)		meters or feet																				
Total Inflow		cumecs or cusecs																				
Total Discharge		cumecs or cusecs																				
G-1 Discharge		cumecs or cusecs																				
G-2 Discharge		cumecs or cusecs																				
G-3 Discharge		cumecs or cusecs																				
TELECOM ALARMS																						
PLC Major Alarm									1												30	
PLC Minor Alarm									1												30	
SDH Major Alarm									1												30	
SDH Minor Alarm									1												30	
PDH Major Alarm									1												30	
PDH Minor Alarm									1												30	
PABX General Alarm									1												30	
Teleprotection Alarm									1												30	
48 V DC Supply Failure Alarm									1												30	
Charger Failure Alarm									1												30	
GPS Failure Alarm									1												30	



Government of Pakistan
Ministry of Law & Justice Islamabad
Document Retrieval System



Date: September 6th, 2022
S.R.O. 1708(I)/2022

**THE NATIONAL ELECTRIC POWER
REGULATORY AUTHORITY
(SECURITY OF INFORMATION
TECHNOLOGY) REGULATIONS, 2022**

**NATIONAL ELECTRIC POWER REGULATORY
AUTHORITY**

Ministry of Law & Justice Islamabad
Document Retrieval System
Drs.molaw.gov.pk

**National Electric Power Regulatory Authority
(Security of Information Technology and Operational Technology)
Regulations, 2022**

Notification

Islamabad, the ^{6th} day of Sept, 2022

¹⁷⁰⁸
SRO. _____(I)/2022.— In exercise of the powers conferred under section 47 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (Act No. XL of 1997) read with all other enabling provisions thereof, the National Electric Power Regulatory Authority is pleased to make the following regulations.—

1. Short title and commencement.— (1) These regulations shall be called the National Electric Power Regulatory Authority (Security of Information Technology and Operational Technology) Regulations, 2022.

(2) These regulations shall come into force at once.

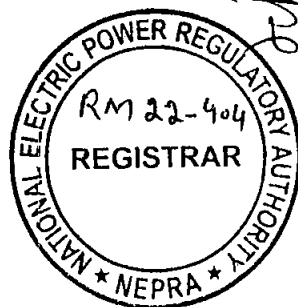
2. Scope.— (1) These regulations set the minimum standards for compliance by the licensees, registered persons and generation companies in the interest of ensuring safe and reliable electric power services, and establishes the necessary trust among the consumers and the stakeholders of the power sector.

(2) It shall be responsibility of every licensee, registration holder, generation company and consumer to ensure that its information systems are properly maintained and safeguarded against unauthorized access.

(3) Any licensee, registration holder, generation company or consumer connected to the national grid, shall ensure that sufficient safeguards are established in its system to prevent any damage to the critical infrastructure information system or data of national grid or system of another user of the national grid.

3. Definitions.— (1) In these regulations, unless there is anything repugnant in the subject or context.—

- (a) "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (Act No. XL of 1997) as amended from time to time;
- (b) "access device" means any device that may enable access to the system or any part thereof;
- (c) "computer emergency response team of power sector" (Power CERT) means a computer emergency response team designated under section 49 of the Prevention of Electronic Crimes Act, 2016 (Act No. XL of 2016) by the Federal



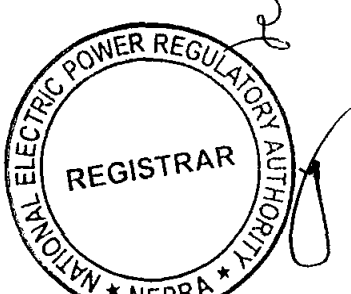
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Government for responding to any threats or attacks on information systems of the power sector:

Provided that till such time the Federal Government notifies the Power CERT, the Authority may notify a Power CERT under these regulations;

- (d) "critical infrastructure in power sector" includes any infrastructure of a licensee connected with the national grid, the loss or compromise of which could result in major detrimental impact on the availability, integrity, reliability or delivery of electric power services including those services, whose integrity, if compromised, could result in significant loss of life or property;
- (e) "critical infrastructure information system or data" means an information system, programme or data that supports or performs a function with respect to a critical infrastructure;
- (f) "identity theft prevention" means any arrangement developed and implemented in order to identify, prevent and mitigate identity thefts in compliance with these regulations;
- (g) "Information Technology and Operational Technology assets" (IT and OT assets) include any data, information system, solution or device of a generation company connected to the grid, a licensee or registration holder that controls or enables control of its own or another licensee's network or machines;
- (h) "Intrusion Detection System" (IDS) means network security applications and appliances which monitor events occurring in a computer system or network in order to identify violations, malicious activity and suspicious patterns that may indicate a network or system attack from someone attempting to break into or compromise a system;
- (i) "Intrusion Prevention System" (IPS) means an extension of IDS, which in addition to performing intrusion detection also attempts to stop possible incidents;
- (j) "least privilege principle" means the security architecture that is designed in a way where each entity is granted the minimum system resources and authorizations needed by the entity to perform its functions;
- (k) "licensee" means any person who has been granted a licence under the Act;
- (l) "security breach" means any incident that results in unauthorized access of systems, applications, data, services, networks and/or devices;
- (m) "Security Operation Control" (SOC) means a team of technical experts designated by the relevant licensee to respond to a threat or attack on its information systems;

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- (n) "security controls" means the formal arrangements made to avoid, counteract and minimize security risks identified by a licensee in its Security Risk Assessment exercise including preventive, detective and corrective arrangements to mitigate security risks to protect licensee's systems; and
- (o) "security objectives" means series of statements that describe licensee's intent to safeguard itself from internal or external threats.

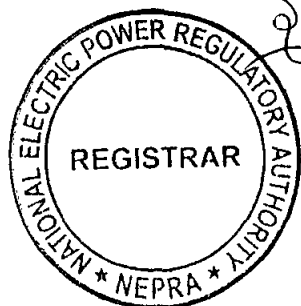
(2) Words and expressions used but not defined in these regulations shall have the same meanings as assigned to them in the Act.

4. IT and OT assets security policy.— (1) Every licensee, registration holder and a generation company connected to national grid shall develop or adopt, implement and regularly review (at least once in every three years) and update IT and OT assets security policy, manuals and related standard operating procedures.

(2) The IT and OT assets security policy and manuals of a licensee, registration holder and generation company shall:

- (a) define and put in place appropriate management structure with required skills and qualifications for developing, maintaining, reviewing, and updating the information security framework, and particularly hire qualified cyber security individuals and appoint Chief Information Security Officer (CISO);
- (b) provide for maintenance of inventory and categorization of IT and OT assets;
- (c) provide for enhancement of security of IT and OT assets, particularly critical infrastructure;
- (d) provide mechanisms to protect its systems from unauthorized access, to ensure integrity, confidentiality and authenticity of data and systems;
- (e) provide guidelines for acquisition of information technology IT and OT assets;
- (f) contain provisions for reliability and availability of information systems and data and maintaining operational effectiveness;
- (g) provide for accountability by incorporation of standard operating procedures, policies and controls to enable traceability of all operations and identification of the system user at the relevant time;
- (h) provide for formulation, roles and responsibilities of the SOC;
- (i) provide the requirements for regular monitoring of security controls, responding to the security incidents, mitigating the risks and vulnerabilities in IT and OT assets;
- (j) provide for patch and change management;
- (k) provide for conducting regular audits, security risk assessment and management thereof;
- (l) adequately cover any gaps identified by it through a gap analysis and enable appropriate controls;

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- (m) provide requirements and processes for evaluating employees, contractors and other relevant stakeholders for potential risks;
- (n) define a business continuity plan to ensure service continuity in case of any incident;
- (o) provide for data disposal procedures and requirements that avoid any unauthorized access or use of such data;
- (p) promote a culture of cyber-security awareness within the organization and channels for training and awareness of the employees and contractors;
- (q) provide for establishment of channels of communications for sharing of any critical information relating to a threat to the power sector:

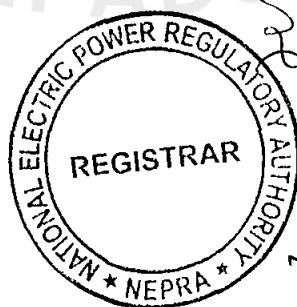
Provided that it shall be ensured that any information shared in this regard is kept confidential;

- (r) provide mechanism for seamlessly implementing the guidelines from PowerCert and/or the Authority;
- (s) reporting of any significant threat or attack in real time to the Authority's designated officer and PowerCERT; and
- (t) provide for implementation of any other guidelines or directives issued by the Authority or PowerCERT in the interest of ensuring protection of power sector in general and any part thereof in particular.

5. Security controls implementation and improvement.— (1) The licensee shall ensure that appropriate security arrangements and security controls to protect IT and OT assets (such as systems, applications, networks, data, and information and communication systems) are in place. The licensee shall develop a set of controls as per the instructions issued by the Authority or the PowerCERT and the relevant international standards, the Security Risk Assessment document, and commensurate with the risk levels to meet the control objectives.

(2) The minimum requirements with regard to the security controls shall be as follows:

- (a) Access Rights Management: Users' access rights shall be appropriate and commensurate with their job functions and shall be periodically reviewed keeping in view the risk ranking of the systems, data and applications as outlined in Security Risk Assessment document. Changes in Access Rights shall be based on personal or systems change and shall only be applied after due authorization while ensuring proper implementation of "least privilege principle".
- (b) Operating Systems Controls: Necessary Operating Systems' controls shall be implemented to ensure that access is physically and logically secured by ensuring that privileged access is restricted, regularly monitored and periodically audited.



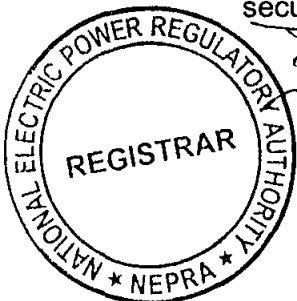
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- (c) Remote Access: Remote access to high-risk IT and OT assets shall only be granted after management's approval in writing and shall be subject to regular audits. Remote access shall also be based on strong authentication and encryption to secure communications:

Provided that a licensee, registration holder or a generation company shall not allow remote access to any critical infrastructure in the power sector, from a country that is considered hostile towards Pakistan.

- (d) Physical Access: Licensees shall ensure that physical access to different systems, segments and data sites is restricted, regularly monitored and duly logged.
- (e) IT and OT Network Security: IT and OT networks shall be secured through layered security approach.
- (f) Firewalls: Firewalls shall be deployed between different security domains, virtual local area networks (VLAN), segments and zones to control network traffic. Firewalls selection and deployment policy shall be devised according to the characteristics of network (i.e., traffic volume, and risk classification of IT and OT assets).
- (g) IDS/IPS: Network Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS) shall be deployed between different security domains as per their risk classification.
- (h) Identity Theft Prevention: Licensee shall develop and implement a proactive Identity Theft Prevention Program which includes procedures for identification of information to be protected, and threats due to thefts and frauds as well as methods for responding appropriately to identified threats.
- (i) Encryption: Access, storage and data communication shall be encrypted using reliable encryption methods, industry encryption standards and tools to strengthen the security of communications and sensitive payment data in accordance with the relevant laws.
- (j) Traceability: Traceability of operations performed on IT and OT assets shall be ensured.
- (k) Data Backup: Regular backup of important data, transactions and software shall be ensured.
- (l) Training: Relevant employees of the licensee shall have appropriate knowledge and background to perform their tasks. Regular trainings shall be arranged to keep employees aware of the security risks, security controls and security control monitoring mechanisms. Employees shall be regularly updated

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about the changes in internal policies and procedures to ensure operational effectiveness.

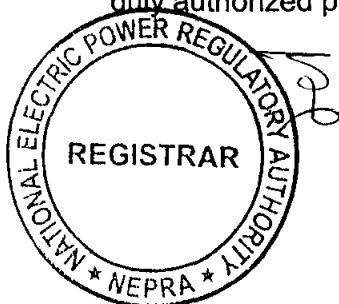
6. Conducting regular security risk assessment / vulnerability assessment.—

(1) The licensee shall conduct and document a formal Security Risk / Vulnerability Assessment for Information Security Assets (IT and OT) with a view of identifying, estimating and prioritizing risks to which its operations are exposed due to information security vulnerabilities. The control testing shall be based on the controls mentioned in the relevant international standards. The Board of Directors or a Committee of the Board authorized by the Board of Directors shall review the risk / vulnerability assessment document and take steps to mitigate any risks and vulnerabilities identified.

(2) The risk / vulnerability assessment shall cover the following aspects as a minimum requirement:

- (a) a current and detailed description of licensee's business and technological environment and existing security measures in place including identification of location, systems and methods for maintaining information;
- (b) an identification of information and the information systems to be protected specifically;
- (c) classification and ranking (high, medium, low) of the sensitive systems, applications in order of their importance and based on the assessment of threats and vulnerabilities or risk assessment;
- (d) assessment of potential threats and vulnerabilities to security and integrity of data, information systems and applications;
- (e) an evaluation of existing Security Controls' effectiveness against each threat and vulnerability;
- (f) the security and contractual responsibilities of Service Providers (SPs), including customers who have access to the licensee's systems and data;
- (g) compliance, concentration, operational, country and legal risks shall be assessed by the licensees before entering into the contract, while managing information security outsourcing arrangements with the SPs;
- (h) the Security Risk / Vulnerability Assessment shall be carried out at least once a year; however, in case of a major security breach, significant changes to the infrastructure and introduction of a new product or service, an immediate review of risk assessment shall be carried out. Further, in case of a major security breach, risk assessment review shall include a detailed analysis of the factors that cause such security breaches.

7. Integrity, confidentiality and authenticity of data.— (1) It shall be the responsibility of the licensee providing data to another licensee or stakeholder of power sector to ensure that the data is free from any errors, access to data is provided to only duly authorized persons and there is a mechanism in place to ensure data is authentic.



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(2) The national grid company and the licensees or generation companies connected with it shall put in place mechanism for any critical data validation.

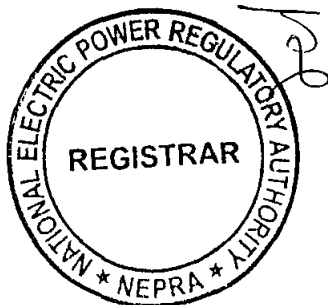
8. Authority mandated audit and risk assessment.— The Authority may, for reasons to be recorded in writing, order a special audit and/or risk assessment with such objectives as may be deemed appropriate in respect of any licensee, registration holder and generation company including any interconnection between the stakeholders of the power sector.

9. Monitoring and computer incident response.- (1) A generation company connected to the national grid, a licensee or a registration holder shall ensure that approved mechanisms for monitorization of security controls and any computer incident in line with the relevant best practices are in place.

(2) A generation company connected to the national grid, a licensee or a registration holder shall develop and shall have in place incident management plan to tackle immediately any incident at the organizational level by the organizational CERT to ensure that an organizational incident is properly addressed and does not spread to or impact other licensees or stakeholders of the power sectors.

(3) A generation company connected to the national grid, a licensee or a registration holder shall develop and implement a formally approved mechanism for the monitoring of Security Controls. An analysis of the effectiveness of existing or proposed Security Controls Monitoring methods shall be part of this monitoring mechanism. Licensee shall ensure that at the minimum the following aspects are covered in the Security Controls Monitoring and Response mechanism:

- (a) monitoring of its network activity by collecting and analyzing the host and network data related to security events such as, including but not limited to, privileged access to sensitive operating systems, configuration changes, and access to critical applications etc;
- (b) methods for proactive monitoring of IDS/IPS and for responding to security breaches shall be listed in detail in the monitoring mechanism. A rapid response team shall be nominated and made responsible to respond immediately in case of a security breach;
- (c) monitoring and reporting mechanism of Authentication Controls shall be formally documented and approved by the senior management and implemented accordingly;
- (d) procedures and time required for restoration of licensee's systems shall be part of Security Controls Monitoring and Response process;
- (e) use of self-assessments, penetration testing, and independent security audits shall commensurate with the systems' complexity and risk exposures;



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- (f) identification and listing of licensee's policy violations, unauthorized configuration changes and other conditions which can potentially increase the risk of security breaches; and
- (g) procedures to ensure the monitoring of logs and audit trails on regular and pre-defined periodic basis shall be developed. The security logs and audit trails for IT and OT assets controls shall be retained for a period of five years.

10. Awareness and training.— (1) A formal awareness and training program regarding information security threats and safeguards to minimize frauds and identity theft risks shall be developed and implemented by the licensees.

(2) This program shall cover the following aspects at the minimum:

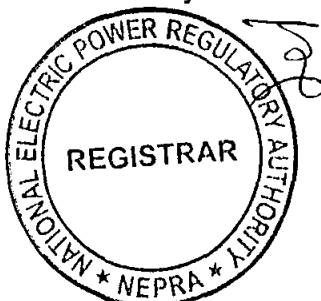
- (a) an explanation of liabilities, roles and responsibilities of licensee as well as its customers and users for using IT and OT products and services offered by the licensee;
- (b) compliance with the disclosure requirements under the applicable laws;
- (c) contact details of help desk that might be needed in case of any information security issues;
- (d) procedure for re-authentication user profile updating;
- (e) complaint handling process including dispute resolution mechanism related to IT and OT Assets;
- (f) regular issuance of guidelines to customers and users on regular basis as required for mitigating the latest risks associated with IT and OT assets; and
- (g) regular review and evaluation of the awareness and training programs by the management.

11. Regulatory reporting requirements.— (1) These regulations are subject to all the relevant laws, rules and regulations issued by the Authority from time-to-time. All the licensees, registration holders and generation companies connected to the grid shall ensure that:

- (a) all established security breaches shall be reported to the Authority. The incident and analysis reports of security breaches shall be furnished on quarterly basis as per the Schedule;
- (b) impact of security breach on licensee's business, systems, applications, users, and customers as well as dependent IT and OT assets shall also be submitted; and
- (c) a common mechanism for transfer of information, ranking of incidents level to be reported, the frequency of reporting and the use of relevant tools shall be adopted in consultation with the PowerCert.

(2) Any incident involving a security breach or threat shall be reported to the Authority immediately but not later than seventy-two hours from the first knowledge of the incident.

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12. PowerCert.— (1) The Authority may notify a set of relevant experts from amongst the licensees, generation companies, registration holders, academia and power sector professionals to act as PowerCert under these regulations.

(2) PowerCert shall be responsible for performing following functions:

- (a) issuing guidelines, threat advisories and possible remedial or protective measures to be adopted by the Licensees, registration holder or generation companies;
- (b) coordination with the national CERT (if any) established by the Federal Government for enhancing overall security of IT and OT assets of the power sector; and
- (c) any other function assigned by the Authority in consultation with the relevant licensees, registration holders and generation companies.

13. Communications.— Any communication required to be made to the Authority under these regulations shall be addressed to the Registrar of the Authority unless the Authority nominates any other officer for this purpose.



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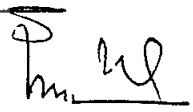
Schedule

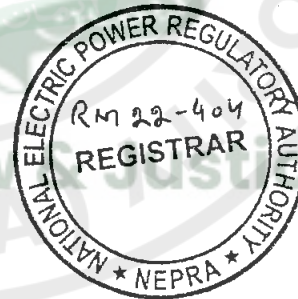
See Regulation 11

Details of Established Security Breaches in IT and OT

Name of the licensee: _____ For the Quarter Ending: _____

Sr. No.	Incident Analysis				Impact Analysis		Remarks (further details, if any)
	Source of security breach discovered	Nature of security breach	Reasons for the occurrence of security breach	Action(s) taken to rectify the Security Breaches	Asset Affected	Impact of security breach	


 060922
Syed Safer Hussain
Registrar



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



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EPADS



ABB

AC 800F

-  Power
-  Failure
-  Run/Stop
-  Prim/Sec
-  Toggle
-  Reset
-  Run/Stop

Power Supply
red. 24V DC
SD 812F



⚠ Do not remove
under Power!

-  State
-  Battery






10 Base T
EI 813F

-  State
-  RxD0
-  TxD0
-  RxD1
-  TxD1
-  RxD2
-  TxD2






CAN-3
FI 810F

-  State
-  Busy

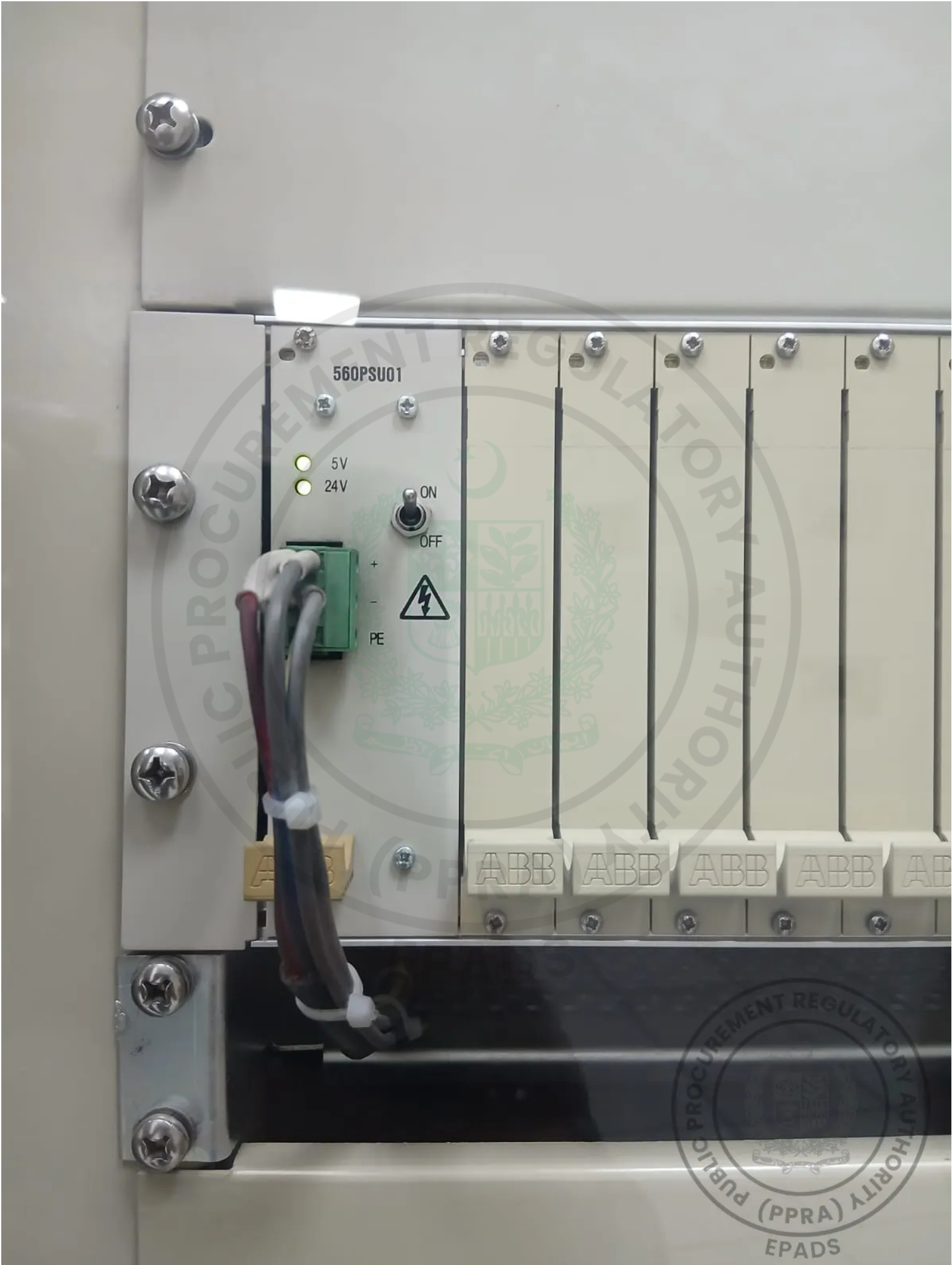
Profibus DPV1
FI 830F

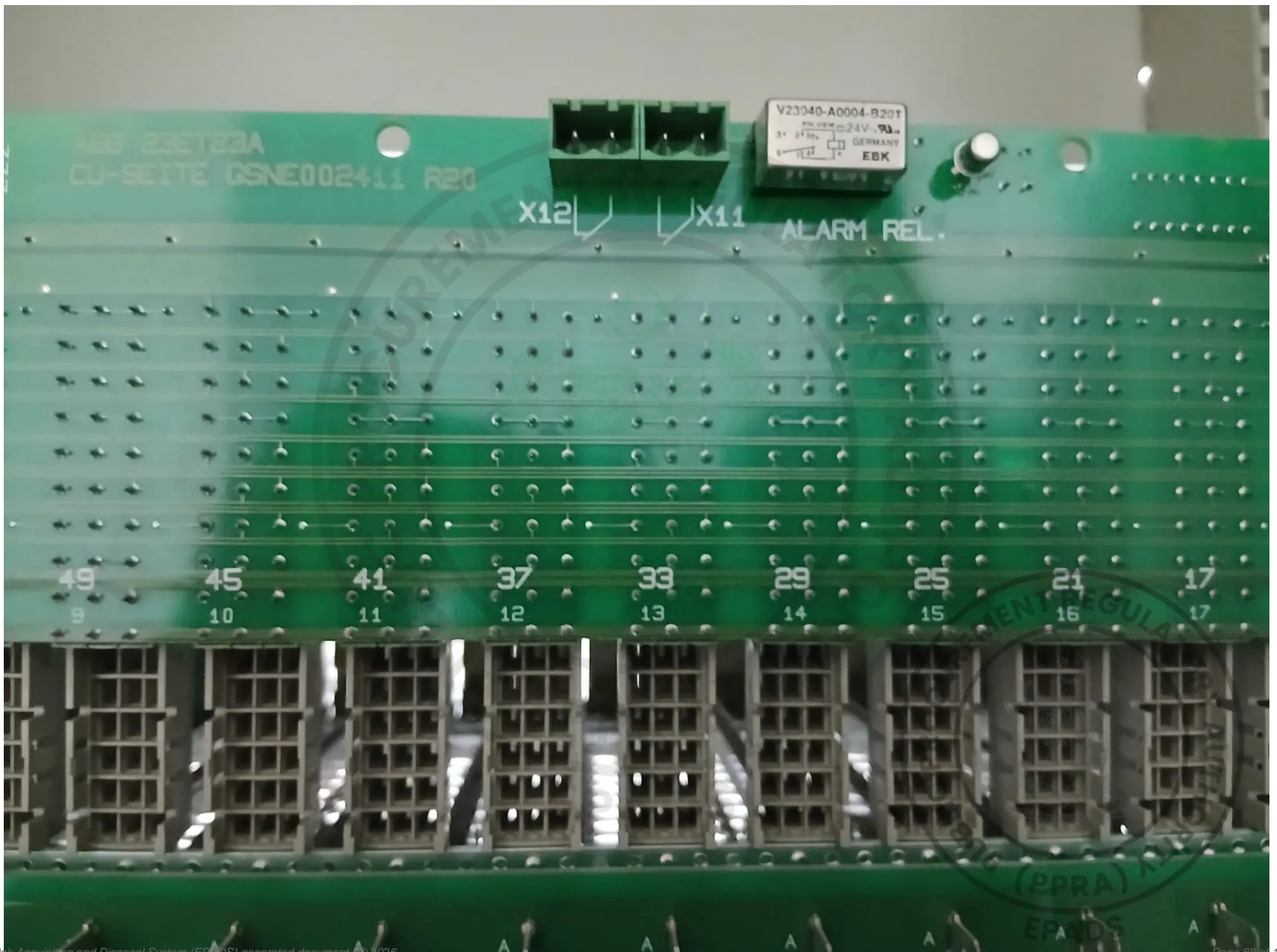
-  State
-  RxD0
-  TxD0
-  RxD1
-  TxD1

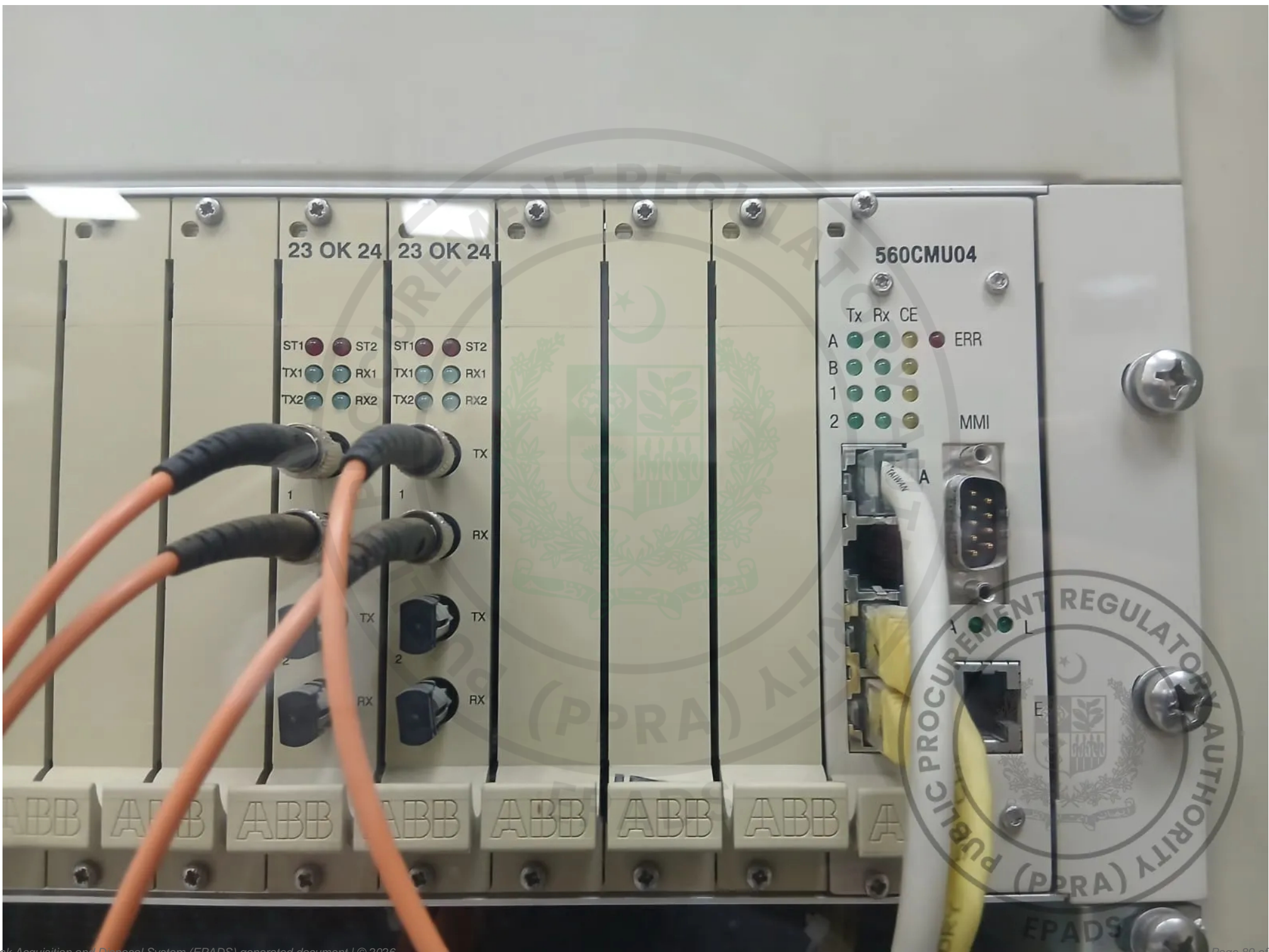
Serial
FI 820F

-  State
-  RxD0
-  TxD0
-  RxD1
-  TxD1

Serial
FI 820F







Description of Communication Interface to NPCC - Khan Khwar Signal Details R4 2016-12-08

For IEC101:
 Size of Common Address = 2
 Size of IOA = 3
 Size of COT = 2
 Size of Link Address = 1
 Link Address = 1
 Common Address = 1
 Baud Rate = 1200bps

For IEC104(for reference):
 Size of Common Address = 2
 Size of IOA = 3
 Size of COT = 2
 Common Address = 1

Type Identification(TI) legend:
 TI1 = Single point information without time tag
 TI3 = Double point information without time tag
 TI13 = Measured value, without time tag
 TI30 = Single point information with time tag
 TI31 = Double point information with time tag
 TI46 = Double command
 TI47 = Regulating step command
 TI50 = Set point command, short floating point

Other Comments:
 GI = General Interrogation
 Spontaneous = Spontaneous transmission

Power Plant	Voltage Level	Condition	Signal Description	SIG	IEC Address						In Decimal
					CASDU1	CASDU2	IOA1	IOA2	IOA3	TI	
			HV Switchyard 132kV								
			LINE								
Khan Khwar	132kV	E1Q1	Line1 ALLAI CB	POS	1	0	1	10		31	2561
Khan Khwar	132kV	E1Q1	Line1 ALLAI CB OPEN/CLOSE	COMMAND	1	0	1	30		46	7681
Khan Khwar	132kV	E1Q1	Line1 ALLAI REMOTE PERMIT	ALARM	1	0	1	0		30	1
Khan Khwar	132kV	E1Q10	Line1 ALLAI DS1	POS	1	0	2	10		31	2562
Khan Khwar	132kV	E1Q11	Line1 ALLAI DS2	POS	1	0	3	10		31	2563
Khan Khwar	132kV	E1E10	Line1 ALLAI ES1	POS	1	0	4	10		31	2564
Khan Khwar	132kV	E1E11	Line1 ALLAI ES2	POS	1	0	5	10		31	2565
Khan Khwar	132kV	E1-Line	Line1 ACTIVE POWER	MEASR	1	0	1	20		13	5121
Khan Khwar	132kV	E1-Line	Line1 REACTIVE POWER	MEASR	1	0	2	20		13	5122
Khan Khwar	132kV	E1-Line	Line1 CURRENT Ia	MEASR	1	0	3	20		13	5123
Khan Khwar	132kV	E1-Line	Line1 VOLTAGE Uab	MEASR	1	0	4	20		13	5124
Khan Khwar	132kV	E1-Line	Line1 POWER FACTOR	MEASR	1	0	5	20		13	5125
Khan Khwar	132kV	E2Q1	Line2 DUBER CB	POS	1	0	6	10		31	2566
Khan Khwar	132kV	E2Q1	Line2 DUBER CB OPEN/CLOSE	COMMAND	1	0	2	30		46	7682
Khan Khwar	132kV	E2Q1	Line2 DUBER REMOTE PERMIT	ALARM	1	0	2	0		30	2
Khan Khwar	132kV	E2Q10	Line2 DUBER DS1	POS	1	0	7	10		31	2567
Khan Khwar	132kV	E2Q11	Line2 DUBER DS2	POS	1	0	8	10		31	2568
Khan Khwar	132kV	E2E10	Line2 DUBER ES1	POS	1	0	9	10		31	2569
Khan Khwar	132kV	E2E11	Line2 DUBER ES2	POS	1	0	10	10		31	2570
Khan Khwar	132kV	E2-Line	Line2 ACTIVE POWER	MEASR	1	0	6	20		13	5126
Khan Khwar	132kV	E2-Line	Line2 REACTIVE POWER	MEASR	1	0	7	20		13	5127
Khan Khwar	132kV	E2-Line	Line2 CURRENT Ia	MEASR	1	0	8	20		13	5128
Khan Khwar	132kV	E2-Line	Line2 VOLTAGE Uab	MEASR	1	0	9	20		13	5129
Khan Khwar	132kV	E2-Line	Line2 POWER FACTOR	MEASR	1	0	10	20		13	5130
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB BFP PROT ✓	TRIP	1	0	3	0		30	3
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB CIRC 1 FAULT	TRIP	1	0	4	0		30	4
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB CIRC 2 FAULT	TRIP	1	0	5	0		30	5
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB DE-ENERGIZED	TRIP	1	0	6	0		30	6
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB MTR PS FAULT	TRIP	1	0	7	0		30	7
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB INCOINCIDENT	TRIP	1	0	8	0		30	8

Khan Khwar	132kV	E1-Line	Line1 ALLAI CB DICCREPANCY	TRIP	1	0	9	0	30	9
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB PRESS LOW AL	TRIP	1	0	10	0	30	10
Khan Khwar	132kV	E1-Line	Line1 ALLAI CB PRESS LOW BK	TRIP	1	0	11	0	30	11
Khan Khwar	132kV	E1-Line	Line1 ALLAI CT CIRC FAULT	TRIP	1	0	12	0	30	12
Khan Khwar	132kV	E1-Line	Line1 ALLAI PT CIRC FAULT	TRIP	1	0	13	0	30	13
Khan Khwar	132kV	E1-Line	Line1 ALLAI VT4 CIRC FAULT	TRIP	1	0	14	0	30	14
Khan Khwar	132kV	E1-Line	Line1 ALLAI AR ACTION	TRIP	1	0	15	0	30	15
Khan Khwar	132kV	E1-Line	Line1 ALLAI AR BLOCK	TRIP	1	0	16	0	30	16
Khan Khwar	132kV	E1-Line	Line1 ALLAI AR FAULT	TRIP	1	0	17	0	30	17
Khan Khwar	132kV	E1-Line	Line1 ALLAI AR START	TRIP	1	0	18	0	30	18
Khan Khwar	132kV	E1-Line	Line1 ALLAI DIST. PROT ST1	TRIP	1	0	19	0	30	19
Khan Khwar	132kV	E1-Line	Line1 ALLAI DIST. PROT ST2	TRIP	1	0	20	0	30	20
Khan Khwar	132kV	E1-Line	Line1 ALLAI DIST. PROT ST3	TRIP	1	0	21	0	30	21
Khan Khwar	132kV	E1-Line	Line1 ALLAI DIST. PROT ST4	TRIP	1	0	22	0	30	22
Khan Khwar	132kV	E1-Line	Line1 ALLAI HIGH FREQ RECVD	TRIP	1	0	23	0	30	23
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Khan Khwar	132kV	E1-Line	Line1 ALLAI INSTANT OC	TRIP	1	0	25	0	30	25
Khan Khwar	132kV	E1-Line	Line1 ALLAI O/U FREQ PROT	TRIP	1	0	26	0	30	26
Khan Khwar	132kV	E1-Line	Line1 ALLAI U/O VOLT PROT	TRIP	1	0	27	0	30	27
Khan Khwar	132kV	E1-Line	Line1 ALLAI PROT CHANNEL FL	TRIP	1	0	28	0	30	28
Khan Khwar	132kV	E1-Line	Line1 ALLAI PROT DC PS FLT	TRIP	1	0	29	0	30	29
Khan Khwar	132kV	E1-Line	Line1 ALLAI PROT DEV FAULT	TRIP	1	0	30	0	30	30
Khan Khwar	132kV	E1-Line	Line1 ALLAI PLC GENERAL ALM	TRIP	1	0	31	0	30	31
Khan Khwar	132kV	E1-Line	Line1 ALLAI SURGE BLOCKED	TRIP	1	0	32	0	30	32
Khan Khwar	132kV	E1-Line	Line1 ALLAI ZERO-SEQ OC DIR	TRIP	1	0	33	0	30	33
Khan Khwar	132kV	E2-Line	Line2 DUBER CB CIRC 1 FAULT	TRIP	1	0	34	0	30	34
Khan Khwar	132kV	E2-Line	Line2 DUBER CB CIRC 2 FAULT	TRIP	1	0	35	0	30	35
Khan Khwar	132kV	E2-Line	Line2 DUBER CB DE-ENERGIZED	TRIP	1	0	36	0	30	36
Khan Khwar	132kV	E2-Line	Line2 DUBER CB MTR PS FAULT	TRIP	1	0	37	0	30	37
Khan Khwar	132kV	E2-Line	Line2 DUBER CB INCOINCIDENT	TRIP	1	0	38	0	30	38
Khan Khwar	132kV	E2-Line	Line2 DUBER CB DICCREPANCY	TRIP	1	0	39	0	30	39
Khan Khwar	132kV	E2-Line	Line2 DUBER CB PRESS LOW AL	TRIP	1	0	40	0	30	40
Khan Khwar	132kV	E2-Line	Line2 DUBER CB PRESS LOW BK	TRIP	1	0	41	0	30	41
Khan Khwar	132kV	E2-Line	Line2 DUBER CT CIRC FAULT	TRIP	1	0	42	0	30	42
Khan Khwar	132kV	E2-Line	Line2 DUBER PT CIRC FAULT	TRIP	1	0	43	0	30	43
Khan Khwar	132kV	E2-Line	Line2 DUBER VT5 CIRC FAULT	TRIP	1	0	44	0	30	44
Khan Khwar	132kV	E2-Line	Line2 DUBER AR ACTION	TRIP	1	0	45	0	30	45
Khan Khwar	132kV	E2-Line	Line2 DUBER AR BLOCK	TRIP	1	0	46	0	30	46
Khan Khwar	132kV	E2-Line	Line2 DUBER AR FAULT	TRIP	1	0	47	0	30	47
Khan Khwar	132kV	E2-Line	Line2 DUBER AR START	TRIP	1	0	48	0	30	48
Khan Khwar	132kV	E2-Line	Line2 DUBER BFP PROT	TRIP	1	0	49	0	30	49
Khan Khwar	132kV	E2-Line	Line2 DUBER DIST. PROT ST1	TRIP	1	0	50	0	30	50
Khan Khwar	132kV	E2-Line	Line2 DUBER DIST. PROT ST2	TRIP	1	0	51	0	30	51
Khan Khwar	132kV	E2-Line	Line2 DUBER DIST. PROT ST3	TRIP	1	0	52	0	30	52
Khan Khwar	132kV	E2-Line	Line2 DUBER DIST. PROT ST4	TRIP	1	0	53	0	30	53
Khan Khwar	132kV	E2-Line	Line2 DUBER HIGH FREQ RECVD	TRIP	1	0	54	0	30	54
Khan Khwar	132kV	E2-Line	Line2 DUBER HIGH FREQ SENT	TRIP	1	0	55	0	30	55
Khan Khwar	132kV	E2-Line	Line2 DUBER INSTANT OC	TRIP	1	0	56	0	30	56
Khan Khwar	132kV	E2-Line	Line2 DUBER O/U FREQ PROT	TRIP	1	0	57	0	30	57
Khan Khwar	132kV	E2-Line	Line2 DUBER O/U VOLT PROT	TRIP	1	0	58	0	30	58

Khan Khwar	132kV	E2-Line	Line2 DUBER PROT CHANNEL FL	TRIP	1	0	59	0	30	59
Khan Khwar	132kV	E2-Line	Line2 DUBER PROT DC PS FLT	TRIP	1	0	60	0	30	60
Khan Khwar	132kV	E2-Line	Line2 DUBER PROT DEV FAULT	TRIP	1	0	61	0	30	61
Khan Khwar	132kV	E2-Line	Line2 DUBER PLC GENERAL ALM	TRIP	1	0	62	0	30	62
Khan Khwar	132kV	E2-Line	Line2 DUBER SURGE BLOCKED	TRIP	1	0	63	0	30	63
Khan Khwar	132kV	E2-Line	Line2 DUBER ZERO-SEQ OC DIR	TRIP	1	0	64	0	30	64
			TRANSFORMER							
Khan Khwar	132kV	E3Q1	T-1 HV CB	POS	1	0	11	10	31	2571
Khan Khwar	132kV	E3Q1	T-1 HV CB	COMMAND	1	0	3	30	46	7683
Khan Khwar	132kV	E3Q1	T-1 HV CB REMOTE PERMIT	ALARM	1	0	65	0	30	65
Khan Khwar	132kV	E3Q11	T-1 HV DS	POS	1	0	12	10	31	2572
Khan Khwar	132kV	T-1	T-1 ACTIVE POWER	MEASR	1	0	11	20	13	5131
Khan Khwar	132kV	T-1	T-1 REACTIVE POWER	MEASR	1	0	12	20	13	5132
Khan Khwar	132kV	T-1	T-1 CURRENT Ia	MEASR	1	0	13	20	13	5133
Khan Khwar	132kV	T-1	T-1 VOLTAGE Uab	MEASR	1	0	14	20	13	5134
Khan Khwar	132kV	T-1	T-1 POWER FACTOR	MEASR	1	0	15	20	13	5135
Khan Khwar	132kV	T-1	T-1 TAP POSITION	MEASR	1	0	16	20	13	5136
Khan Khwar	132kV	E4Q1	T-2 HV CB	POS	1	0	13	10	31	2573
Khan Khwar	132kV	E4Q1	T-2 HV CB	COMMAND	1	0	4	30	46	7684
Khan Khwar	132kV	E4Q1	T-2 HV CB REMOTE PERMIT	ALARM	1	0	66	0	30	66
Khan Khwar	132kV	E4Q11	T-2 HV DS	POS	1	0	14	10	31	2574
Khan Khwar	132kV	T-2	T-2 ACTIVE POWER	MEASR	1	0	17	20	13	5137
Khan Khwar	132kV	T-2	T-2 REACTIVE POWER	MEASR	1	0	18	20	13	5138
Khan Khwar	132kV	T-2	T-2 CURRENT Ia	MEASR	1	0	19	20	13	5139
Khan Khwar	132kV	T-2	T-2 VOLTAGE Uab	MEASR	1	0	20	20	13	5140
Khan Khwar	132kV	T-2	T-2 POWER FACTOR	MEASR	1	0	21	20	13	5141
Khan Khwar	132kV	T-2	T-2 TAP POSITION	MEASR	1	0	22	20	13	5142
Khan Khwar	132kV	E5Q1	T-3 HV CB	POS	1	0	15	10	31	2575
Khan Khwar	132kV	E5Q1	T-3 HV CB	COMMAND	1	0	5	30	46	7685
Khan Khwar	132kV	E5Q1	T-3 HV CB REMOTE PERMIT	ALARM	1	0	67	0	30	67
Khan Khwar	132kV	E5Q11	T-3 HV DS	POS	1	0	16	10	31	2576
Khan Khwar	132kV	T-3	T-3 ACTIVE POWER	MEASR	1	0	23	20	13	5143
Khan Khwar	132kV	T-3	T-3 REACTIVE POWER	MEASR	1	0	24	20	13	5144
Khan Khwar	132kV	T-3	T-3 CURRENT Ia	MEASR	1	0	25	20	13	5145
Khan Khwar	132kV	T-3	T-3 VOLTAGE Uab	MEASR	1	0	26	20	13	5146
Khan Khwar	132kV	T-3	T-3 POWER FACTOR	MEASR	1	0	27	20	13	5147
Khan Khwar	132kV	T-3	T-3 TAP POSITION	MEASR	1	0	28	20	13	5148
Khan Khwar	132kV	T-1	U1 MT PROT DC PS FAULT	TRIP	1	0	68	0	30	68
Khan Khwar	132kV	T-1	U1 MAIN XFMR DIFF PROT	TRIP	1	0	69	0	30	69
Khan Khwar	132kV	T-1	U1 MT PROT DEVICE FAULT	TRIP	1	0	70	0	30	70
Khan Khwar	132kV	T-1	U1 MAIN XFMR HV CB BFP PROT	TRIP	1	0	71	0	30	71
Khan Khwar	132kV	T-1	U1 MAIN XFMR HV OVER CURRENT	TRIP	1	0	72	0	30	72
Khan Khwar	132kV	T-1	U1 MAIN XFMR NEU OVER CURRENT	TRIP	1	0	73	0	30	73
Khan Khwar	132kV	T-1	U1 MT PROT ACTION TO STOP UNIT	TRIP	1	0	74	0	30	74
Khan Khwar	132kV	T-1	U1 MAIN XFMR HEAVEY BLTZ PROT	TRIP	1	0	75	0	30	75
Khan Khwar	132kV	T-1	U1 MXFMR LIGHT BUCHHOLTZ PROT	TRIP	1	0	76	0	30	76
Khan Khwar	132kV	T-1	U1 MAIN XFMR OIL LEVEL HIGH	TRIP	1	0	77	0	30	77

Khan Khwar	132kV	T-1	U1 MAIN XFMR OIL LEVEL LOW	TRIP	1	0	78	0		30	78
Khan Khwar	132kV	T-1	U1 MAIN XFMR PRESS RELAESED	TRIP	1	0	79	0		30	79
Khan Khwar	132kV	T-1	U1 MAIN XFMR OVER TEMP PROT ✓	TRIP	1	0	80	0		30	80
Khan Khwar	132kV	T-1	U1 MAIN XFMR TEMP HIGH ✓	TRIP	1	0	81	0		30	81
Khan Khwar	132kV	T-2	U2 MT PROT DC PS FAULT	TRIP	1	0	82	0		30	82
Khan Khwar	132kV	T-2	U2 MAIN XFMR DIFF PROT ✓	TRIP	1	0	83	0		30	83
Khan Khwar	132kV	T-2	U2 MT PROT DEVICE FAULT	TRIP	1	0	84	0		30	84
Khan Khwar	132kV	T-2	U2 MAIN XFMR HV CB BFP PROT ✓	TRIP	1	0	85	0		30	85
Khan Khwar	132kV	T-2	U2 MAIN XFMR HV OVER CURRENT ✓	TRIP	1	0	86	0		30	86
Khan Khwar	132kV	T-2	U2 MAIN XFMR NEU OVER CURRENT	TRIP	1	0	87	0		30	87
Khan Khwar	132kV	T-2	U2 MT PROT ACTION TO STOP UNIT	TRIP	1	0	88	0		30	88
Khan Khwar	132kV	T-2	U2 MAIN XFMR HEAVEY BLTZ PROT ✓	TRIP	1	0	89	0		30	89
Khan Khwar	132kV	T-2	U2 MXFMR LIGHT BUCHHOLTZ PROT ✓	TRIP	1	0	90	0		30	90
Khan Khwar	132kV	T-2	U2 MAIN XFMR OIL LEVEL HIGH	TRIP	1	0	91	0		30	91
Khan Khwar	132kV	T-2	U2 MAIN XFMR OIL LEVEL LOW	TRIP	1	0	92	0		30	92
Khan Khwar	132kV	T-2	U2 MAIN XFMR PRESS RELAESED	TRIP	1	0	93	0		30	93
Khan Khwar	132kV	T-2	U2 MAIN XFMR OVER TEMP PROT ✓	TRIP	1	0	94	0		30	94
Khan Khwar	132kV	T-2	U2 MAIN XFMR TEMP HIGH ✓	TRIP	1	0	95	0		30	95
Khan Khwar	132kV	T-3	GST PROT DEVICE DC PS FAULT	TRIP	1	0	96	0		30	96
Khan Khwar	132kV	T-3	GST DIFFERENTIAL PROT ✓	TRIP	1	0	97	0		30	97
Khan Khwar	132kV	T-3	GST HV OVER CURRENT PROT ✓	TRIP	1	0	98	0		30	98
Khan Khwar	132kV	T-3	GST HEAVY BUCHHOLTZ PROT ✓	TRIP	1	0	99	0		30	99
Khan Khwar	132kV	T-3	GST LIGHT BUCHHOLTZ PROT ✓	TRIP	1	0	100	0		30	100
Khan Khwar	132kV	T-3	GST LV OVER CURRENT PROT ✓	TRIP	1	0	101	0		30	101
Khan Khwar	132kV	T-3	GST NEUTRAL OVER CURRENT PROT ✓	TRIP	1	0	102	0		30	102
Khan Khwar	132kV	T-3	GST OIL LEVEL HIGH	TRIP	1	0	103	0		30	103
Khan Khwar	132kV	T-3	GST OIL LEVEL LOW	TRIP	1	0	104	0		30	104
Khan Khwar	132kV	T-3	GST PRESS RELEASED	TRIP	1	0	105	0		30	105
Khan Khwar	132kV	T-3	GST PROT DEVICE FAULT	TRIP	1	0	106	0		30	106
Khan Khwar	132kV	T-3	GST TEMP HIGH ✓	TRIP	1	0	107	0		30	107
Khan Khwar	132kV	T-3	GST TEMPERATURE HH ✓	TRIP	1	0	108	0		30	108
			BUSBAR								
Khan Khwar	132kV	PT1Q11	BUS VT DS	POS	1	0	17	10		31	2577
Khan Khwar	132kV	PT1E11	BUS VT ES	POS	1	0	18	10		31	2578
Khan Khwar	132kV	Busbar	VOLTAGE Uab ✓	MEASR	1	0	29	20		13	5149
Khan Khwar	132kV	Busbar	FREQUENCY ✓	MEASR	1	0	30	20		13	5150
Khan Khwar	132kV	Busbar	132kV BUS BFP PROT ✓	TRIP	1	0	109	0		30	109
Khan Khwar	132kV	Busbar	132kV BUS DIFFERENTIAL PROT ✓	TRIP	1	0	110	0		30	110
Khan Khwar	132kV	Busbar	132KV BUS PROT CT CIRC FAULT ✓	ALARM	1	0	111	0		30	111
Khan Khwar	132kV	Busbar	132kV BUS UNDER VOLTAGE PROT ✓	TRIP	1	0	112	0		30	112
Khan Khwar	132kV	Busbar	132KV BUS VT6 CIRCUIT FAULT ✓	ALARM	1	0	113	0		30	113
							114				
			GENERATORS				115				
Khan Khwar	11kV	Unit1	U1 GEN ACTIVE POWER	MEASR	1	0	116	20		13	5151
Khan Khwar	11kV	Unit1	U1 GEN REACTIVE POWER	MEASR	1	0	117	20		13	5152
Khan Khwar	11kV	Unit1	U1 GEN POWER FACTOR	MEASR	1	0	118	20		13	5153

Khan Khwar	11kV	Unit1	U1 GEN VOLTAGE Uab	MEASR	1	0	34	20		13	5154
Khan Khwar	11kV	Unit1	U1 GEN CURRENT Ia	MEASR	1	0	35	20		13	5155
Khan Khwar	11kV	Unit2	U2 GEN ACTIVE POWER	MEASR	1	0	36	20		13	5156
Khan Khwar	11kV	Unit2	U2 GEN REACTIVE POWER	MEASR	1	0	37	20		13	5157
Khan Khwar	11kV	Unit2	U2 GEN POWER FACTOR	MEASR	1	0	38	20		13	5158
Khan Khwar	11kV	Unit2	U2 GEN VOLTAGE Uab	MEASR	1	0	39	20		13	5159
Khan Khwar	11kV	Unit2	U2 GEN CURRENT Ia	MEASR	1	0	40	20		13	5160
Khan Khwar	11kV	K2Q1	U3 GCB	POS	1	0	19	10		31	2579
Khan Khwar	11kV	K1Q1	T-3 LV CB	POS	1	0	20	10		31	2580
Khan Khwar	11kV	Unit3	U3 GEN ACTIVE POWER	MEASR	1	0	41	20		13	5161
Khan Khwar	11kV	Unit3	U3 GEN REACTIVE POWER	MEASR	1	0	42	20		13	5162
Khan Khwar	11kV	Unit3	U3 GEN POWER FACTOR	MEASR	1	0	43	20		13	5163
Khan Khwar	11kV	Unit3	U3 GEN VOLTAGE Uab	MEASR	1	0	44	20		13	5164
Khan Khwar	11kV	Unit3	U3 GEN CURRENT Ia	MEASR	1	0	45	20		13	5165
			AGC SIGNALS								
Khan Khwar		AGC	PLANT AGC OFF	ALARM	1	0	114	0		30	114
Khan Khwar		AGC	PLANT AGC ON	ALARM	1	0	115	0		30	115
Khan Khwar		AGC	NCC AGC SETPOINT	COMMAND	1	0	1	40		50	10241
			SYNCHROCHECK								
Khan Khwar		SYN	IN SERVICE	ALARM	1	0	116	0		30	116
Khan Khwar		SYN	OUT OF SERVICE	ALARM	1	0	117	0		30	117
			TOTAL PLANT GENERATION								
Khan Khwar		PLANT	PLANT ACTIVE POWER TOTAL	MEASR	1	0	46	20		13	5166
Khan Khwar		PLANT	PLANT REACTIVE POWER TOTAL	MEASR	1	0	47	20		13	5167
			GENERAL								
Khan Khwar		OTHER	FOREBAY LEVEL (M)	MEASR	1	0	48	20		13	5168
Khan Khwar		OTHER	TAILRACE LEVEL (M)	MEASR	1	0	49	20		13	5169
Khan Khwar		OTHER	Telecommunication Alarm (not confirmed)	ALARM	1	0	118	0		30	118

Contractor's Representative and Key Personnel Schedule

Bidders should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>

	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position:	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
6.	Title of position: <i>[insert title]</i>	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

**Form PER-2:
Resume and Declaration
Contractor's Representative and Key Personnel**

Name of Bidder

Position [#1]: <i>[title of position from Form PER-1]</i>
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Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
details		
	Address of Employer:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Employer:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned [insert either “Contractor’s Representative” or “Key Personnel” as applicable] , certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor’s Representative orKey Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor’s Representative orKey Personnel is available to work on this contract]</i>

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (c) result in my dismissal from the contract.

Name of Contractor’s Representative or Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day/month/year): _____

Past Experience / Contracts

Contracts over *[insert amount]* during the last three years:

Procuring Agency	Value	Year	Goods/Services Supplied	Country of Destination



Historical Contract Non-Performance, and Pending Litigation and Litigation History

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

IFP No. and title: *[insert IFP number and title]*

Page *[insert page number]* of *[insert total number]* pages

<input type="checkbox"/> Not debarred due to deviation from commitment of Bid Securing Declaration- <input type="checkbox"/> Not debarred due to non-performance			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and PKR equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
<input type="checkbox"/> Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.3 as indicated below.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), US\$ PKR Equivalent (exchange rate)

<i>[insert year]</i>	<i>[insert amount]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>
<input type="checkbox"/> No consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4. <input type="checkbox"/> Consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), PKR Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: <i>[insert full name]</i> Address of Procuring Agency: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Agency" or "Supplier"]</i> Court/ arbitral award decision: <i>[Indicate if the award decision was against the Applicant or any member of a joint venture.]y]</i>	<i>[insert amount]</i>

Current Contract Commitments / Works in Progress

Bidders and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [Current Eq. PKR]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Eq. PKR/month]
1					
2					
3					
4					
5					