Standard Bidding Document

Supply, Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing of Jinnah HPS
(Goods)

National

Single Stage-One Envelope

CORRIGENDUM # 1	CORR-P121864-001
Initiation Date	October 07, 2026

October 07, 2026

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REQUEST FOR BIDS

PROCUREMENT OF GOODS

1. The **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power))** has reserved Funds for the procurement planned for FY **2026-27**. The **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power))** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Supply, Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing of Jinnah HPS**" with the reference of "**P121864**"

2. The **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power))** invites sealed Bids from eligible Bidders for procurement of goods described in the bidding documents on **EPADS v2.0**.

3. **Single Stage-One Envelope** will be used by adopting **Least Cost Based Selection (LCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, Regulatory Guides, Procurement Guidelines or Instructions issued by the Authority from time to time.

4. All Bids must be accompanied by a Bid Security amounting 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 all bids must be accompanied by bid securing declaration in the format specified in the Bidding documents

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/121864** for all the interested bidders registered on **EPADS v2.0**. Bidders are required to get themselves registered on **EPADS v2.0** to participate in Bidding process.

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 **Thursday, October 22, 2026 10:00 AM**. E-bids will be opened using **EPADS v2.0** on the same day at **Thursday, October 22, 2026 10:30 AM**. 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**

In terms of Rule 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 on Authority's website at (**www.ppra.org.pk**).

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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 Goods for as specified in the BDS and **in Section V – Evaluation Criteria, Specifications & Schedule of Requirements**. The name, identification, and number of items/deliverables are provided in the **BDS**. The successful Bidders will be expected to provide the goods 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. Eligible Bidders

3.1 A Bidder may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country**,** or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture, consortium, or association. 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, who shall have the authority to conduct all business for and on behalf of any and all the members of the joint venture, consortium, or association during the Bidding process, and in case of award of contract, during the execution of the contract.

3.2 Verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Bid.

3.3 The appointment of Lead Member in the joint venture, consortium, or association shall be confirmed by submission of a valid Power of Attorney to the Procuring Agency.

3.4 Any bid submitted by the joint venture, consortium or association shall indicate the part of proposed contract to be performed by each party and each party shall be evaluated (or post qualified if required) with respect to its contribution only, and the responsibilities of each party shall not be substantially altered without prior written approval of the Procuring Agency and in line with

any instructions issued by the Authority.

(The limit on the number of members of JV or Consortium or Association may be prescribed in BDS, in accordance with the guidelines issued by the PPRA).

3.5 The invitation for Bids is open to all prospective suppliers, manufacturers, or authorized agents / dealers subject to any provisions of incorporation or licensing by the respective national incorporating agency or statutory body established for that particular trade or business. Procuring agencies shall specify the registration/licensing requirements for the foreign bidders keeping in view the requirement of that business.

3.6 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:

1. are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the Goods to be purchased under this Invitation for Bids.

2. have controlling shareholders in common; or

3. receive or have received any direct or indirect subsidy from any of them; or

4. have the same legal representative for purposes of this Bid; or

5. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bids of another Bidder, or influence the decisions of the Procuring Agency regarding this Bidding process; or

6. Submit more than one Bid in this Bidding process.

3.7 A Bidder may be ineligible if –

1. he is declared bankrupt or, in the case of company or firm, insolvent;

2. payments in favor of the Bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property;

3. the Bidder is convicted, by a final judgment, of any offence involving professional conduct;

4. the Bidder is blacklisted locally or by international organizations and hence debarred due to involvement in corrupt and fraudulent practices, or performance failure or due to breach of Bid securing declaration.

3.8 As and when required, bidders shall provide to the Procuring Agency evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.

3.9 Bidders shall submit Bids relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract amounting to more than ten (10) percent of the Bid price is envisaged.

4. Eligible Goods and Related Services

4.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services. For purpose of this Bid, ineligible countries are the countries declared ineligible by the Federal Government.

5. One Bid per Bidder

5.1 A bidder shall submit only one Bid, in the same bidding process, either individually as a Bidder or as a member in a joint venture or any similar arrangement.

5.2 The Bidder shall not engage a subcontractor for any portion of the contract if the value of such subcontracting exceeds thirty percent (30%) of the total contract amount.

6. Cost of Bidding

6.1 Any cost incurred by the bidder relating to the preparation and submission of its Bid shall be borne by the bidder, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B. Bidding Documents

7. Contents of Bidding Document

7.1 The Goods required, Bidding procedures, and terms and conditions of the contract are prescribed in the Bidding Documents. In addition to the Invitation for Bids, the Bidding documents which should be read in conjunction with any addenda issued in accordance with **ITB 9.1** include:

Section I -Invitation to Bids

Section II Instructions to Bidders (ITB)

Section III Bid Data Sheet (BDS)

Section IV Evaluation Criteria, Specifications, Schedule of Requirements

Section V Bid Forms

Section VI General Conditions of Contract (GCC)

Section VII Special Conditions of Contract (SCC)

Section VIII Contract Forms

7.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding documents. Failure to furnish all the information required in the Bidding documents through **EPADS v2.0** will be at the Bidder’s risk and may result in the rejection of his Bids.

8. Clarification of Bidding documents

8.1 A prospective Bidder requiring any clarification of the Bidding documents may notify the Procuring Agency through **EPADS v2.0.**

8.2 The Procuring Agency will within three (3) working days after receiving the request for clarification, respond to any request for clarification through **EPADS v2.0** provided that such request is received not later than three (03) days prior to the deadline for the submission of Bids as prescribed in **ITB 22**

8.3 Copies of the Procuring Agency's response will be forwarded to all identified Prospective Bidders through **EPADS v2.0**, including a description of the inquiry, but without identifying its source.

8.4 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 9.**

8.5 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 Bidders may request clarification of the schedule of requirement, the Evaluation Criteria or any other aspects of the Bidding document.

8.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be uploaded on **EPADS v2.0**. Any modification to the Bidding documents 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 pursuant to **ITB 9**. Non-attendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

9. Amendment of Bidding documents

9.1 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 addenda through **EPADS v2.0**.

9.2 The Procuring Agency shall promptly publish the addendum through **EPADS v2.0**.

9.3 Any addendum issued including the notice of any extension of the deadline shall also be communicated through EPADS v2.0 to all the bidders who have already submitted their bids. Such bidders shall have the right to withdraw their already submitted bid and re-submit the revised bid prior to the original or extended bid submission deadline.

9.4 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 through **EPADS v2.0**:

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 Bids submission deadline.

C. Preparation of Bids

10. Language of Bid

10.1 The Bid prepared by the bidder, as well as all correspondence and documents relating to the Bids exchanged by the Bidder and the Procuring Agency shall be written in the English language unless otherwise specified in the BDS**.** Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless otherwise specified in the **BDS**, in which case, for purposes of interpretation of the Bidder, the translation shall govern.

11. Documents and samples Constituting the Bid

11.1 The Bid prepared by the Bidder shall constitute thedocuments required in the **BDS**.

Details of sample(s) where applicable and requested in the BDS.

1. Documentary evidence established in accordance with ITB that the Bidder is eligible and/or qualified for the subject bidding process;

2. Documentary evidence establish that the Bidder has been authorized by the manufacturer to deliver the goods into Pakistan, where required and where the supplier is not the manufacturer of those goods;

3. Documentary evidence establish that the goods and related services to be supplied by the Bidder are eligible goods and services, and conform to the Bidding Documents;

4. Bid security or Bid Securing Declaration furnished in accordance with **ITB 18.**

12. Documents Establishing Eligibility of the Goods and Conformity to Bidding documents

12.1 To establish the conformity of the bidder to the Bidding document, the Bidder shall furnish as part of its Bids the documentary evidence that Goods provided conform to the technical specifications and standards.

13. Documents Establishing Eligibility and Qualification of the Bidder

13.1 The Bidder shall furnish, as part of itsBid, 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.

14. Form of Bids

14.1 The Bidder shall fill the Form of Bid furnished in the Bidding documents.The Bids Form must be completed without any alterations to its format and no substitute shall be accepted.

15. Bids Prices

15.1 The Bids Prices quoted by the Bidder in the Form of Bid and in the Price Schedules shall conform to the requirements specified below or exclusively mentioned hereafter in the Bidding documents.

15.2 All items in the Schedule of Requirement must be listed and priced separately in the Price Schedule(s). If a Price Schedule shows items listed but not priced and neither explicitly denied, their prices shall be construed to be included in the prices of other items.

15.3 Items not listed in the Price Schedule shall be assumed not to be included in the Bid, and provided that the Bid is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially responsive Bidder(s) shall be construed to be the price of those missing item(s)

15.4 The Bid price to be quoted in the Form of Bid in accordance with **ITB 14.1** shall be the total price of the Bid.

15.5 The Bidder shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total Bid price of the Goods it proposes to provide under the contract.

15.6 Prices quoted by the Bidder shall be fixed during the Bidder's performance 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.

16. Bids Currencies

16.1 Prices shall be quoted in Pakistani Rupees unless otherwise specified in the BDS in accordance with Rule 30 (2) of the Public Procurement Rules, 2004.

17. Bids Validity Period

17.1 Bids 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 Bids Securing Declaration as the case may be.

17.2 The procuring agency shall ordinarily be under an obligation to process and evaluate the bid and to issue letter of award within the stipulated bid validity period.

17.3 Under exceptional circumstances, prior to the expiration of the initial Bid validity period, the Procuring Agency may request the Bidders' consent to an extension of the period of validity of their Bids only once through **EPADS v2.0**, for the period not more than the period of initial bid validity. The Bid Security provided under **ITB 18** shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid security or causing to be executed its Bid Securing Declaration. A Bidder agreeing to the request will not be required nor permitted to modify its Bid, but will be required to extend the validity of its Bid Security or Bid Securing Declaration for the period of the extension.

18. Bid Security or Bid Securing Declaration

18.1 The Bidder shall furnish as part of its Bid, a Bid Security in accordance with Rule 25 of the Public Procurement Rules, 2004.

18.2 The original Bid Security shall be enclosed within the sealed envelope and to be submitted physically before closing time for submission of bids. Whereas, scanned copy of bid security shall be uploaded electronically through EPADS v2.0 before closing hours for submission of bids.

18.3 The Bidder who failed to submit the original Bids security before the submission deadline shall be disqualified straightaway.

18.4 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, pursuant to **ITB 18.7.**

18.5 The Bid Security shall be denominated in the local currency, and it shall be a Bank Draft in the name of the Procuring Agency and valid for twenty-eight (28) days beyond the end of the validity of the Bid. This shall also apply if the period

for Bids/Bid Validity is extended. In either case, the form must include the complete name of the Bidder.

18.6 The Bid Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in **ITB 18** are invoked.

18.7 Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Bids Validity prescribed by the Procuring Agency pursuant to **ITB 17**. The Procuring Agency shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, after whichever of the following that occurs earliest:

a. the expiry of the Bid Security;

b. 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 Bid documents;

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

d. the withdrawal of the Bids prior to the deadline for the submission of Bids, unless the Bids documents stipulate that no such withdrawal is permitted.

18.8 The successful Bidder's Bids Security will be discharged upon the Bidder signing the contract**,** or furnishing the Performance Guarantee.

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

a. if a Bidder:

b. withdraws its Bid during the period of Bid Validity as specified by the Procuring Agency, and referred by the Bidder on the Form of Bids except as provided for in **ITB 17.2**; or

c. does not accept the correction of errors**;** or

d. in the case of a successful Bidder, if the Bidder fails:

e. to sign the contract; or

f. to furnish Performance Guarantee**.**

19. Withdrawal, Substitution, and Modification of Bid

19.1 Before Bid submission deadline, any Bidder may withdraw, substitute, or modify its Bid after it has been submitted through EPADS v2.0. Bids requested to be withdrawn, shall be returned unopened to the Bidders through **EPADS v2.0**.

20. Format and Signing of Bid

20.1 The Bidder shall prepare and submit Bids with due diligence after carefully reading all the terms and condition **before bid submission deadline** through EPADS v2.0.

D. Submission of Bids

21. Submission of Bids through EPADS v2.0

21.1 The Technical and Financial Bids if required to submitted, shall be submitted on **EPADS v2.0**.

22. Deadline for Submission of Bids

22.1 Bids shall be received by the Procuring Agency through **EPADS v2.0** before bid submission deadline.

22.2 The Procuring Agency may, under exceptional circumstances, extend the deadline for the submission of Bids, after recording reasons in writing and in an equal opportunity manner.

In such case, all rights and obligations of the Procuring Agency and the Bidders that were previously governed by the original deadline shall thereafter be subject to the revised deadline.

E. Opening and Evaluation of Bids

23. Opening of Bids

23.1 The Bid Evaluation Committee of the Procuring Agency shall open all Bids through the EPADS v2.0, on the date and time specified in the Bid Data Sheet (BDS).

23.2 The Bid Evaluation Committee **shall generate minutes through EPADS v2.0 containing brief details of bid opening process.** The record of the Bid opening shall include, as a minimum: the name of the Bidder, the Bid price if applicable, and the presence or absence of a Bid Security or Bid Securing Declaration.

23.3 The procuring agency shall live broadcast the opening of bids on national media or on their website or digital channels, if the volume of procurement exceeds five hundred million rupees in case of goods and services and one thousand million rupees in case of works.

23.4 In case the date of opening of bid has been declared as public holiday or the procuring agency fail to open bid due to any EPADS v2.0 related issues, the submission and opening of bids shall be shifted to the next working day on the same time.

23.5 In case of Single Stage One Envelope Procedure, the Bidders names, the Bid prices, the total amount of each Bid and, the presence or absence of Bid Security, Bid Securing Declaration and such other details as the Procuring Agency may consider appropriate, will be announced by the Bid Evaluation Committee.

24. Clarification of Bids

24.1 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.

24.2 The request for clarification and the response shall be sought through EPADS v2.0 before **three days prior to the deadline for submission of bids.** No change in the prices or substance of the Bids shall be sought, offered, or permitted.

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

1. evaluation & qualification criteria;
2. required scope of work or specifications;
3. all securities requirements;
4. tax requirements;

5. terms and conditions of Bidding documents.

6. change in the ranking of the Bidder

24.4 From the time of Bids opening to the time of Contract award if any Bidder wishes to contact the Procuring Agency on any matter related to the Bids it should do so through **EPADS v2.0**.

25. Preliminary Examination of Bids

25.1 Prior to the detailed evaluation of Bids, the Procuring Agency will determine whether each Bid:

1. meets the eligibility criteria defined in **ITB 3**;

2. has been prepared as per the format and contents defined by the Procuring Agency in the Bidding documents;

3. is accompanied by the required securities; and

4. is substantially responsive to the requirements of the Bidding documents.

25.2 The Procuring Agency's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

25.3 A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one that: -

1. affects in any substantial way the scope, quality, or performance of the Goods;

2. limits in any substantial way, inconsistent with the Bidding documents, the Procuring Agency's rights or the Bidders obligations under the Contract; or

3. if rectified, would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

25.3 If a Bids 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 examine the Bids to confirm that all terms and conditions specified in the **GCC** and the **SCC** have been accepted by the Bidder without any material deviation or reservation.

26.2 The Procuring Agency shall evaluate the technical aspects of the Bids submitted, to confirm that all requirements specified in Schedule of Requirements and Technical Specifications of the Bidding documents have been met without material deviation or reservation.

26.3 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 **ITB 25.2,** it shall reject the Bid.

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: -

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;

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

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

4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bids, 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, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, its Bid will then be rejected, and the Bid Security may be forfeited or the Bids Securing Declaration may be executed.

28. Conversion to Single Currency

28.1 To facilitate evaluation and comparison, the Procuring Agency will convert all Bids prices expressed in the amounts in various currencies in which the Bids prices are payable. For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding documents. The rate of exchange shall be the selling rate prevailing on the date of opening of financial bids specified in the bidding documents, in accordance with weighted average customer exchange rates list issued by the State Bank of Pakistan on that day.

29. Evaluation of Bids

29.1 The Bids, quotations, or proposals shall be evaluated by the respective evaluation committees as per evaluation criteria described in the Bidding Documents in accordance with Rule 29 and 30 of the Public Procurement Rules, 2004.

1. Least Cost Based Selection (LCBS)
After meeting the requirements of eligibility, qualification and substantial responsiveness, the bid in compliance with all the mandatory (technical) specifications/requirements and/or requisite quality threshold (if any), and having lowest evaluated cost (or financial proposal) shall be considered Successful Bid.

2. Quality and Cost Based Selection (QCBS)
In such combination, there shall be some specific weightage of both the technical features and financial aspects of the proposal. The financial marks shall be awarded on the basis of inverse proportion calculations. The successful bid shall be declared, on the basis of combined evaluation.

3. Quality Based Selection (QBS)
Atter meeting the requirements of eligibility, qualification and substantial responsiveness the bid in compliance with all the mandatory (technical) specifications/requirements and attaining highest marks in the Technical Evaluation considering all other qualitative and/or quantitative parameters (or point rated criteria) for technical proposal(s) such as working methodology, implementation plan, resource allocation, additional functionalities, risk management approach, knowledge transfer techniques, post implementation methodology etc. shall be treated as highest ranked bid. Later on, the financial proposal of highest ranked bidder shall be opened, however, in case of failure to proceed further with such a bidder, the procuring agency may resort to second

highest bidder and so on.

29.2 In case of tie of bids, the bidders shall be provided an opportunity to offer their best and final monetary offer through EPADS v2.0. However, in no case the rates shall be higher than the original financial bids.

30. Domestic Preference

30.1 The procuring agency shall evaluate and compare bids, allow for preference to domestic bidders, while competing with the international bidders in accordance with the policies of Federal Government.

The percentage of preference, to be accorded shall be clearly mentioned in the bidding documents under the bid evaluation criteria.

31. Determination of Successful Bid

31.1 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.

31.2 In case where the Procuring Agency adopts the Cost Based Evaluation Technique and, the Bid with the lowest evaluated price from amongst those which are eligible, compliant and substantially responsive shall be the Successful Bid.

31.3 The Procuring Agency may adopt the Quality & Cost Based Selection Technique due to the following two reasons:

1. Where the Procuring Agency knows about the main features, usage and output of the products; however not clear about the complete features, technical specifications and functionalities of the goods to be procured and requires the bidders to submit their proposals defining those features, specifications and functionalities; or

2. Where the Procuring Agency, in addition to the mandatory requirements and mandatory technical specifications, requires parameters specified in Evaluation Criteria to be evaluated while determining the quality of the goods.

31.4 In such cases, the Procuring Agency may allocate certain weightage to these factors as a part of Evaluation Criteria, and may determine the ranking of the bidders on the basis of combined evaluation in accordance with provisions of Rule 2(1)(h) of the Public Procurement Rules, 2004.

32. Abnormally Low Financial Bids

32.1Where the Bid price is considered to be abnormally low, the Procuring Agency shall perform price analysis either during determination of Successful Bids or as a part of the post-qualification process.

32.2 The Procuring Agency may reject an Abnormally low financial bids.

32.3 In order to identify the Abnormally Low Bids (ALB) following approaches can be considered to minimize the scope of subjectivity:

1. Comparing the Bids price with the cost estimate;

2. Comparing the Bids price with the Bids offered by other Bidders submitting substantially responsive Bids; and

3. Comparing the Bids price with prices paid in similar contracts in the recent past either government- or development partner-funded.

32.4 The Procuring Agency will determine to its satisfaction whether the Bidder that is selected as having submitted the successful bid is qualified to perform the contract satisfactorily.

32.5 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Procuring Agency deems necessary and appropriate. Factors not included in these Bidding documents shall not be used in the evaluation of the Bidders' qualifications.

32.6 Procuring Agency may seek "Certificate for Independent Price Determination" from the Bidder and the results of reference checks may be used in determining an award of contract.

Explanation: The Certificate shall be furnished by the Bidder. The Bidder shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.

32.7 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's Bids, in which event the Procuring Agency will proceed to the next ranked Bidder to make a similar determination of that Bidder's capabilities to

perform satisfactorily.

F. Award of Contract

33. Criteria of Award

33.1 The Procuring Agency will award the Contract to the Bidder whose Bids has been determined to be substantially responsive to the Bidding documents and who has been declared as Most Advantageous Bidder.

34. Negotiations

34.1 The procuring agency shall not engage in negotiations with respect to scope and price with the bidder except when the procuring agency conducts a procurement using direct **or negotiated** contracting or a request for proposals with evaluation based on quality alone.

34.2 The procuring agency may negotiate with the most advantageous bid with a view to streamline the work or task execution, at the time of contract finalization on methodology, work plan, staffing, finalizing payment arrangements, delivery arrangements, minor amendments to the special conditions of the contract.

35. Procuring Agency Right to reject all bids

35.1 The Procuring Agency reserves the right to reject all bids or proposals at any time prior to the issuance of the Letter of Award, without incurring any liability, in accordance with Rule 33 of the Public Procurement Rules, 2004.

36. Procuring Agency’s Right to Vary Quantities at the Time of Award

36.1 The Procuring Agency reserves the right at the time of contract award to increase or decrease the **quantity of** Goods originally specified in these Bidding documents provided this does not exceed **by** 15%, without any change in unit price or other terms and conditions of the Bids and Bidding documents.

37. Notification of Award

37.1 Prior to the award of contract, the procuring agency shall announce and publish the result of bid evaluation on **EPADS v2.0** in accordance with Rule 35

of the Public Procurement Rules, 2004.

37.2 The Bidder whose Bids has been accepted will be notified of the award by the Procuring Agency prior to expiration of the Bids/Bid Validity period. The Letter of Award will state the sum that the Procuring Agency will pay the successful Bidder in consideration for the delivery of Goods as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

37.3 The Letter of award will constitute the formation of the Contract, subject to the Bidder furnishing the Performance Guarantee and signing of the contract.

38. Signing of Contract

38.1 Promptly after issuance of Letter of award, Procuring Agency shall send the successful Bidder the draft Contract, incorporating all terms and conditions as agreed by the parties to the contract.

38.2 Immediately after the Redressal of grievance by the GRC (if any), mandatory standstill period in accordance with Rule 35 of the Public Procurement Rules, 2004 and **after fulfillment of all condition's precedent** of the Contract Form, the successful Bidder and the Procuring Agency shall sign the Contract.

39. Corrupt & Fraudulent Practices

39.1 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.

F. Grievance Redressal & Complaint Review Mechanism

40. Constitution of Grievance Redressal

40.1 The Grievance Redressal Committee shall address the grievance, if any submitted by any party, including the bidder, in accordance with Rule 48 of the Public Procurement Rules, 2004 to be read with Redressal of Grievances Regulations, 2021.

40.2 In case if any party or the bidder is not satisfied with the decision of the GRC or if it fails to decide within ten days, the bidder or the party may file an appeal before the Appellate Committee of the Authority in accordance with Rule 48 of the Public Procurement Rules, 2004 to be read with Redressal of Grievances Regulations, 2021.

G. Mechanism of Blacklisting

41. Mechanism of Blacklisting

41.1 The Procuring Agency shall initiate blacklisting proceedings against any bidder, supplier, or contractor in accordance with the Mechanism for Blacklisting Regulations, 2024, read with Rule 19 of the Public Procurement Rules, 2004.

41.2 The blacklisted/debarred bidder may file the review petition before the Authority in accordance with Rule 19 of the Public Procurement Rules, 2004 to be read with Procedure of filing and disposal of Review Petitions Regulations, 2021.

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Bid Data Sheet

Bids Data Sheet (BDS)

The following specific data for the procurement of Goods 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
ITB Number 1.1

Name of Procuring Agency: **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power))**

The subject of procurement is: **Supply, Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing of Jinnah HPS**

Expected commencement date: **Friday, January 29, 2027**

BDS Clause Number 2
ITB Number 2.1

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

Name and identification number of the Contract: **P121864**

BDS Clause Number 3
ITB Clause Number 3.1

JV/Consortium or Association Allowed: **No**
Number of JV/Consortium Members: **Nil**
see section of eligibility criteria.

B. Bidding Documents

BDS Clause Number 4
ITB Number 8.1

The Bidders may seek clarifications through **EPADS v2.0** : Clarification Date: Monday, October 19, 2026

C. Preparation of Bids

BDS Clause Number 5
ITB Number 10.1

The Language of all correspondences and documents related to the Bids shall be in: **English**

List of documents required along with the bid:

1. All requisite documents/brochures should be attached with the bid.

BDS Clause Number 6
ITB Number 11.1
Items/Lots and threre related documents:
See section items and Lots

BDS Clause Number 7
ITB Number 12.1

Items / Lots Specifications:

see section of items specifications.

BDS Clause Number 8
ITB Number 15.6

The price shall be **Fixed**.

BDS Clause Number 9
ITB Number 16.1

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

BDS Clause Number 10
ITB Number 17.1

The Bids/Bid Validity period shall be: **180 Days**

BDS Clause Number 11
ITB Number 18.1

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**

D. Submission of Bids

BDS Clause Number 12
ITB Number 20.1

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

Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province). before bid submission deadline.

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

The deadline for Bids submission is: **Thursday, October 22, 2026 10:00 AM**

E. Opening and Evaluation of Bids

BDS Clause Number 13
ITB Number 23.1

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

Day *:* ***Thursday***

Date: ***Thursday, October 22, 2026***

Time *:* ***10:30 AM***

BDS Clause Number 14
ITB Number 31.1

Selection technique adopted will be: **Least Cost Based Selection (LCBS)**
see Evaluation Criteria

F. Review of Procurement Decisions

BDS Clause Number 15
ITB Number 41.1

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

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

Eligibility Criteria

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

Eligibility Criteria	Document
The bidder must be an active taxpayer and listed on the Active Taxpayer List (ATL) of the FBR.	Yes

The Bidder must have a valid system integrator (SI) OEM authorization certificate/letter for the offered solution and shall be furnished with the bid.	Yes
The Bidder shall have minimum five (05) years proven experience in supply, configuration and commissioning of IEC-101/104 communication/integration systems in automated power utility, substation or equivalent relevant industrial applications.	Yes
The Bidder shall furnish documentary evidence of at least three (03) successfully commissioned IEC-101/104 integration projects in automated power utility/substation or equivalent relevant applications.	Yes
The Bidder shall submit detailed proposed architecture, offered make/model, datasheets, protocol and license details, I/O/module schedule, signal-capacity calculation, spare-capacity calculation, interface list and proposed reuse/replacement schedule for existing JHPS assets.	Yes
The Bidder shall submit a point-by-point technical compliance statement. All deviations, exclusions and limitations shall be clearly identified; silence shall not be treated as acceptance of a deviation.	Yes

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Evaluation Criteria

Eligibile bidder(s) with substantially responsive bid(s) offering **Least Cost Based Selection (LCBS)** shall be consider for the award of contract(s).

Least Cost Based Selection (LCBS)

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Items/Lots

Lot Title : Supply, Installation, Testing, Commissioning and Integration of Industrial Gateway System for Signal Interfacing of Jinnah HPS

Bid Security : 750000 PKR

Item	UNSPSC	Delivery Schedule	Quantity	Manufacturer / Dealer Authorization	Warranty
Supply of the Industrial Communication Gateway System for Signal Interfacing	Supervisory control and data acquisition packaged system SCADA	**Address:** Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province). **Schedule:** 3-months after issuance of Work Order **Quantity:** 1/Lot	1 / Lot	Any	1 Years

Item	UNSPSC	Delivery Schedule	Quantity	Manufacturer / Dealer Authorization	Warranty
Services for Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing	Supervisory control and data acquisition packaged system SCADA	**Address:** Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province). **Schedule:** 3-months after issuance of Work Order **Quantity:** 1/job	1 / job	Any	1 Years

Related Services of Goods:

No

Supply, Installation, Testing, Commissioning and Integration of Industrial Gateway System for Signal Interfacing of Jinnah HPS

Item	UNSPSC	Related Services
Supply of the Industrial Communication Gateway System for Signal Interfacing	Supervisory control and data acquisition packaged system SCADA	1. Periodic inspection of SCADA system Health checks of servers, workstations and network 2. System backup and database maintenance.
Services for Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing	Supervisory control and data acquisition packaged system SCADA	1. On-site technical support after commissioning Troubleshooting and fault diagnosis 2. The supplier shall provide, free of cost, training to the Employer's staff regarding the operation and routine maintenance of the system.

Items/Lot Specification

Lot Title : Supply, Installation, Testing, Commissioning and Integration of Industrial Gateway System for Signal Interfacing of Jinnah HPS

Item: Supply of the Industrial Communication Gateway System for Signal Interfacing

UNSPSC: Supervisory control and data acquisition packaged system SCADA

Specifications / Requirements:

Sr. No.	Description	Qty. Req.
1	Complete Industrial Communication Gateway / Interface System supporting Modbus TCP and IEC 60870-5-101 / IEC 60870-5-104 with local Workstation at JHPS MCR...	01 Lot
2	Complete Signal Acquisition and I/O Interface System comprising required DI, DO, AI and AO modules/interfaces...	01 Lot
3	Communication Interface and Network Equipment including Ethernet/serial interfaces, protocol/media converters, adapters...	01 Lot
4	Industrial DC Power, Protection and Mounting Arrangement including redundant DC power supplies, surge protection, DIN rails, terminal blocks...	01 Lot
5	Cybersecurity / Network Security Equipment, licenses and accessories...	01 Lot
6	Time Synchronization Interface/Equipment and accessories, NTP/GPS interfaces...	01 Lot

Sr. No.	Description	Qty. Req.
7	Engineering, Configuration and Maintenance Software, perpetual protocol/feature licenses, programming tools...	01 Lot
8	All other hardware, software, licenses, spare components, cables, connectors, accessories and materials required...	01 Lot

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Item: Services for Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing

UNSPSC: Supervisory control and data acquisition packaged system SCADA

Specifications / Requirements:

Sr. No.	Description	Qty. Req.
1	Detailed site survey, technical assessment and preparation of the proposed architecture...	L/S
2	Complete installation and integration works including panel modification/fabrication, mounting, wiring, termination, grounding...	L/S
3	Complete engineering and database configuration, including point-by-point reconciliation of the approved ISMO signal list...	L/S
4	Assessment and integration of all approved signals through the technically appropriate source/interface...	L/S
5	Configuration and commissioning of hardwired DI/DO/AI/AO interfaces and associated conditioning, isolation, interposing...	L/S

Sr. No.	Description	Qty. Req.
6	Configuration and verification of communication redundancy/failover, time synchronization and cybersecurity/network security...	L/S
7	Configuration, testing and commissioning of IEC 60870-5-101 / IEC 60870-5-104 interfaces, including protocol verification, SAT, SOE...	L/S
8	Complete documentation, handover and training, including as-built drawings, final architecture, soft signal register details...	L/S

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Price Schedule

For Individual Items

#	Item 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]		

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

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

a. “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;

b. “Procuring Agency” means:-

a. any Ministry, Division, Department or any Office of the Government;

b. any authority, corporation, body or organization established by or under a Law or which is owned or controlled by the Government;.

c. “The Contract” means an agreement enforceable by law;

d. “The Contract Price” means the price payable to the Bidder under the Contract for the full and proper performance of its contractual obligations;

e. “Ancillary Services” means those services ancillary to the provision of Goods, 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 Bidder covered under the Contract;

f. “GCC” means the General Conditions of Contract contained in this section;

g. “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;

h. **“**Day” means calendar day unless indicated otherwise.

i. “Effective Date” means the date on which this Contract comes into force and effect.

j. The Bidder” means the individual or corporate body whose Bids to provide the Goods has been accepted by the Procuring Agency;

k. “The Project Site,” where applicable, means the place or places named in Bids Data Sheet and technical Specifications;

l. “Government” means the Government of Pakistan;

m. “Subcontractor” means any entity to which the Bidder subcontracts any part of the Goods.

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

o. “Party” means the Procuring Agency or the Bidder, as the case may be, and “Parties” means both of them;

p. “Foreign Currency” means any currency other than the currency of the country of the Procuring Agency;

q. “Completion Date” means the date of completion of the contract by the Bidder as certified by the Procuring Agency;

r. “In Writing” means communicated in written form with proof of receipt;

s. “Local Currency” means the currency of Pakistan;

2. Application and Interpretation

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

2.2 In interpreting these Conditions of Contract headings and marginal notes are used for convenience only and shall not affect their interpretations unless specifically stated; references to singular include the plural and vice versa; and masculine include the feminine. Words have their ordinary meaning under the language of the Contract unless specifically defined.

3. Applicable Law

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

4. Governing Language

4.1 The Contract as well as all correspondence and documents relating to the Contract exchanged between the Bidder 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.

5. Notices

5.1 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**.

6. Delivery/Location

6.1 The Goods shall be delivered to such locations as the Procuring Agency may approve and as specified in SCC.

7. Authorized Representatives / Authority of Member in charge

7.1 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 Bidder may be taken or executed by the officials specified in the **SCC**.

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

8. Effectiveness of Contract

8.1 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.

9. Commencement of Services

9.1 The Bidder 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.

10. Program

10.1 Before commencement of the Services, the Bidder 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.

11. Starting Date/Expiration Date

11.1 The Bidder 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.**

11.2 Unless terminated earlier pursuant to Clause **GCC 15** hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.

12. Entire Agreement

12.1 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.

13. Modification

13.1 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 Bids for modification or variation made by the other Party.

13.2 In cases of any modifications or variations, the prior written consent of the Procuring Agency is required.

14. Force Majeure

14.1 Definition

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

14.2 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.

14.3 Extension of Time

Any period within which a Party 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.

14.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Bidder 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.

15. Termination

15.1 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 Bidder 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);

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

b. If the Bidder becomes (or, if the Bidder 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;

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

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

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

15.2 By the Bidder

The Bidder 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.

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

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

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

d. 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 Bidder's notice specifying such breach.

C. Obligations of the Bidder

16. General

16.1 Standard of Performance

1. The Bidder shall deliver the product 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 Bidder 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.

16.2 Law Applicable to Goods

The Bidder shall deliver the goods 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.

17. Conflict of Interests

17.1 Bidder Not to Benefit from Commissions and Discounts.

The remuneration of the Bidder shall constitute the Bidder's sole remuneration in connection with this Contract or the Services, and the Bidder 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 Bidder 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.

17.2 Bidder and Affiliates Not to be Otherwise Interested in Project

The Bidder agree that, during the term of this Contract and after its termination, the Bidder and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing Goods for any project resulting from or closely related to the Services.

17.3 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:

a. 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;

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

18. Confidentiality

18.1 Except with the prior written consent of the Procuring Agency, the Bidder and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the contract.

19. Insurance to be Taken Out by the Bidder

19.1 The Bidder(a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Procuring Agency, insurance against the risks, loss or damage, 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.

20. Bidder's Actions Requiring Procuring Agency's Prior Approval

20.1 The Bidder shall obtain the Procuring Agency's prior approval in writing before taking any of the following actions:

(a) appointing such members of the Personnel not provided by the Bidder;

(b) changing the Program of activities; and

(c) any other action that may be specified in the SCC.

21. Reporting Obligations

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

22. Liquidated Damages

22.1 If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring Agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in **SCC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the performance security (or guarantee) specified in **SCC**. Once the said maximum is reached, the Procuring Agency may consider termination of the Contract pursuant to **GCC Clause 15.**

22.2 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 Bidder by adjusting the next payment certificate. The Bidder shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in SCC.

22.3 Lack of performance penalty

If the Bidder 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 Bidder. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as specified in the SCC.

23. Performance Guarantee

23.1 Within Seven (07) days from the issuance of acceptance letter from the Procuring Agency, the successful Bidder shall furnish the Performance Guarantee in shape of ------- at the discretion of the PA in the amount **specified in SCC.** In case the amount of Bids security is equal or greater than

23.2 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.

23.3 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.

23.4 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.**

24. Fraud and Corruption

24.1 The Procuring Agency requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the Bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

25. Sustainable Procurement

25.1 The Bidder shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.

D. Bidder's Personnel

26. Description of Personnel

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

27. Removal and/or Replacement of Personnel

27.1 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 Bidder, it becomes necessary to replace any of the Key Personnel, the Bidder shall provide as a replacement a person of equivalent or better qualifications.

27.2 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 Bidder 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.

27.3 The Bidder 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

28. Assistance and Exemptions

28.1 The Procuring Agency shall use its best efforts to ensure that the Government shall provide the Bidder such assistance and exemptions as specified in the SCC.

29. Change in the Applicable Law

29.1 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 related Services rendered by the Bidder, then the remuneration and reimbursable expenses otherwise payable to the Bidder 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.

30. Services and Facilities

30.1 The Procuring Agency shall make available to the Bidder and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described , at the times and in the manner specified in the SCC or terms of reference.

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

F. Payments to the Bidder

31. Contract Price

31.1 The price payable shall be in Pakistani Rupees unless otherwise specified in the SCC. Prices charged by the Supplier for Goods delivered under the Contract shall not vary from the prices quoted by the Supplier in its Bid.

32. Terms and Conditions of Payment

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

32.2 Unless otherwise stated in the SCC, the advance payment shall be made against the provision by the Bidder 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 Bidder have submitted an invoice to the Procuring Agency specifying the amount due.

33. Currency of Payment

33.1 Any payment under this Contract shall be made in the currency(ies) specified in the SCC.

G. Quality Control

34. Identifying Defects

34.1 The principle and modalities of Inspection of the Goods by the Procuring Agency shall be as indicated in the SCC. The Procuring Agency shall check the Bidder’s performance and notify him of any Defects that are found. Such checking shall not affect the Bidder’s responsibilities. The Procuring Agency may instruct the Bidder 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.

35. Correction of Defects,and

Lack of Performance Penalty

35.1 The Procuring Agency shall give notice to the Bidder 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.

35.2 Every time notice a Defect is given, the Bidder shall correct the notified Defect within the length of time specified by the Procuring Agency's notice.

35.3 If the Bidder 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 Bidder will pay this amount, and a Penalty for Lack of Performance.

36. Taxes and Duties

36.1 A Supplier shall be entirely responsible for all taxes, duties, fees, etc., incurred until delivery of the contracted Goods to the Procuring Agency.

H. Settlement of Disputes

37. Alternate Dispute Resolution

37.1 The disputes between the parties to the contract may be settled in accordance with Public Procurement Rules, 2004.

37.2 The procuring agency shall refer the matter to the Chief Justice Islamabad High Court or Managing Director PPRA or the Secretary Ministry of Law & Justice for appointment of Arbitrator.

37.3 The fee for the Arbitrator shall be specified in Pak Rupees as determined by the appointing authority which shall be borne and shared equally by the contracting parties.

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

Number of GC Clause 1

Definitions

The Procuring Agency is: Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province).

The Supplier is:

The title of the subject procurement is: Supply, Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing of Jinnah HPS

Number of GC Clause 3

Applicable/Governing Law:

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

Number of GC Clause 4

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 5

Notices:

The addresses for the notices are:

Procuring Agency:

Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer
Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province).
+92-335-668-7202
re_jhm@yahoo.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 7.1

The Authorized Representatives are:

For the Procuring Agency:

Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer
Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (Province).
+92-335-668-7202
re_jhm@yahoo.com

For the Bidder:

Name: ……

Designation: ……..

Address: ……..

Number of GC Clause 8

Effectiveness of the contract

Number of GC Clause 9

Commencement of Contract:

Number of GC Clause 11.2

Expiration of Contract:

Number of GC Clause 15

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 Goods till the time of alternate arrangements.

Number of GC Clause 17

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 goods or services due to a conflict of a nature described in Clause GCC 17**.**

Number of GC Clause 22

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 **0.07%** 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 23

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, Demand Draft**

Number of GC Clause 32

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 33

Currency of Payment:

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

Number of GC Clause 34

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 equipment (Certificate from supplier)

For the Country of Origin as quoted by the Supplier (Certificate from manufacturer)

For conformance to specifications and performance parameters, through Prior to delivery inspection (Inspection Report by Procurement Committee / Inspection Team)

For successful operation 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’ description, quantity, unit price, and total amount;

Sales Tax Invoice;

Certificate to the effect that the billed amount has not been claimed or received earlier;

Copy of Sale Tax Return alongwith Annexure-C;

Professional Tax Certificate;

Income Tax Exemption Certificate or it will be deducted from your bill amount according to prevailing Govt. Rules;

Handing / Taking over protocol countersigned by R.E JHPS.

Warranty Certificate

Number of GC Clause 37

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.

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.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Bid Securing Declaration

Form 9: Bid Securing Declaration

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

Bid No.:***P121864***

To: **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (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 **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (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., **Supply, Installation, Testing, Commissioning and Integration of the Industrial Communication Gateway System for Signal Interfacing of Jinnah HPS (*P121864*)** 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: ……

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Integrity Pact

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BYTHE 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 time 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: **Resident Engineer, JHP Station (Water and Power Development Authority (WAPDA) / Member (Power)), Resident Engineer Resident Engineer, Jinnah Hydel Power Station, WAPDA, Kalabagh, Isakhel, Mianwali (District), Sargodha Division (Division), Punjab (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}

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Annexure

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

ANNEXURE-I (SCADA SIGNALS LIST)

SCADA SIGNALS LIST IS ATTACHED FOR PERUSAL.

Information (Read-Only)

See Form Under Additional Forms and Documents: **ANNEXURE-I (SCADA SIGNALS LIST)** (page number: 71)

ANNEXURE-II (MANDATORY TECHNICAL & PERFORMANCE REQUIREMENTS)

MANDATORY TECHNICAL & PERFORMANCE REQUIREMENTS ARE ATTACHED AS ANNEXURE-II FOR PARTICIPATING IN THE BIDDING PROCESS.

Information (Read-Only)

See Form Under Additional Forms and Documents: **ANNEXURE-II (MANDATORY TECHNICAL & PERFORMANCE REQUIREMENTS)** (page number: 78)

ANNEXURE-III (IMPORTANT NOTES)

IMPORTANT NOTES FOR THE BIDDERS ARE ATTACHED AS ANNEXURE-III FOR PARTICIPATING IN THE BIDDING PROCESS.

Information (Read-Only)

See Form Under Additional Forms and Documents: **ANNEXURE-III (IMPORTANT NOTES)** (page number: 79)

Procurement Forms

Past Experience and Completed Contracts

Fill the form and attach the documentary evidence.

See Form Under Additional Forms and Documents: **Past Experience and Completed Contracts** (page number: 80)

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

Fill the form and attach the undertaking.

See Form Under Additional Forms and Documents: **Historical Contract Non-Performance, and Pending Litigation and Litigation History** (page number: 81)

Current Contracts and Their Progress

Fill the form and attach the documentary evidence.

See Form Under Additional Forms and Documents: **Current Contracts and Their Progress** (page number: 83)

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

Additional Forms and Documents

132 kV HPP JINNAH HYDRO																										
Station Short Name		**JHPP**																								
Station Long Name		**JINNAH HYDAL**																								
										STATUSINDICATIONS														**COMMANDS**		
EQUIPMENT			**CONDITION**																							
	Signal Name IN SCADA	**Branch No. / TRAFO Type**			**Connected Equipment**	**NPCC Nomenclature**	**Controlling CB**	**Measurands Units**		**Double**	**Single**	**Double+SOE**	**Single+SOE**	**MW**	**MVAR**	**AMP**	**VOLT**	**HZ**	**P.F.**	**Tap Pos.**	**Other**	**Open / Close**	**Raise/ lower**	**Setpoint**	**Type Identifier TI**
										D	S	D+S	S+S	MW	MVAR	AMP	VOLT	HZ	P.F	TAP	Other	Open/Close	Raise/Lower	SetPoint	
132 kV bay E05			132 kV, Double Busbar Single Breaker Scheme, 1 Line																						
E5																									
DKHL-1		1	1DKHL_JHPP-1																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E5Q1 close position			Q1	DKHL-1	E5Q1			Circuit Breaker Status			1												30
Line Isolator Open/ Close Status	E5Q10 close position			Q10	DKHL-1	E5Q10			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E5Q11 close position			Q11	DKHL-1	E5Q11			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E5Q12 close position			Q12	DKHL-1	E5Q12			Disc. Switch Status	1														1
Earth Switch Open/ Close Status	ES-7 close position			6	DKHL-1	ES-6			Disc. Switch Status	1														3
Earth Switch Open/ Close Status	ES-6 close position			7	DKHL-1	ES-7			Disc. Switch Status	1														1
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	DKHL-1	E5Q1			Command													1			46
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	DKHL-1	E5Q1			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132 KV LINE DKHL-1																									
Distance protection phase A trip Set 1	MiCom Areva P44331AA7M0550K in MCR				DKHL-1		E5Q1		Alarm SP+SOE				1												30
Distance protection phase B trip Set 1					DKHL-1		E5Q1		Alarm SP+SOE				1												30
Distance protection phase C trip Set 1					DKHL-1		E5Q1		Alarm SP+SOE				1												30
Distance protection Z-2 trip Set 1					DKHL-1		E5Q1		Alarm SP+SOE				1												30
Distance protection Z-3 trip Set 1					DKHL-1		E5Q1		Alarm SP+SOE				1												30
Auto-recloser blocked Set1	???				DKHL-1		E5Q1		Alarm SP+SOE				1												30
Auto-recloser operated Set1	???				DKHL-1		E5Q1		Alarm SP+SOE				1												30
Overcurrent and Earth Fault Protection	P4D Ajile				DKHL-1		E5Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132 KV LINE DKHL-1																									
Active Power	L1_PMAC_P		1DKHL_JHPP-1		DKHL-1		E5Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	L1_PMAC_Q		1DKHL_JHPP-1		DKHL-1		E5Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	L1_PMAC_Ia		1DKHL_JHPP-1		DKHL-1		E5Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	L1_PMAC_Ubc		1DKHL_JHPP-1		DKHL-1		E5Q1	kV	Analog Measurement								1								13 or 14
Power Factor	L1_PMAC_cos θ		1DKHL_JHPP-1		DKHL-1		E5Q1	P.F	Analog Measurement										1						13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	NO		Stage-I	Q1	DKHL-1	E5Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	NO		Stage-II	Q1	DKHL-1	E5Q1			Alarm SP+SOE				1												30
50 B.F. initiated from Remote End	NO		DTT Receive	Q1	DKHL-1	E5Q1			Alarm SP+SOE				1												30
Direct Transfer Trip Signal send to Remote end	NO		DTT Send	Q1	DKHL-1	E5Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	5J12C IN MCR			Q1		E5Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E5Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E5Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E5Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E5Q1			Alarm SP+SOE				1												30
Synch Successful				Q1		E5Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E5Q1			Alarm SP+SOE				1												30
132 kV bay E02			132 kV, Double Busbar Single Breaker Scheme, 1 Line																						
E2																									
KLB_-5		5	1JHPP_KLB_-5																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E2Q1 close position			Q1	KLB_-5	E2Q1			Circuit Breaker Status			1												30
Line Isolator Open/ Close Status	E2Q10 close position			Q10	KLB_-5	E2Q10			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E2Q11 close position			Q11	KLB_-5	E2Q11			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E2Q12 close position			Q12	KLB_-5	E2Q12			Disc. Switch Status	1														1
Earth Switch Open/ Close Status	ES-4 close position			4	KLB_-5	ES-4			Disc. Switch Status	1														3
Earth Switch Open/ Close Status	ES-5 close position			5	KLB_-5	ES-5			Disc. Switch Status	1														1
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	KLB_-5	E2Q1			Command													1			46
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	KLB_-5	E2Q1			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132 KV LINE KLB_-5																									
Distance protection phase A trip Set 1	PSL 622C Distance Line Prot in MCR				KLB_-5		E2Q1		Alarm SP+SOE				1												30
Distance protection phase B trip Set 1					KLB_-5		E2Q1		Alarm SP+SOE				1												30
Distance protection phase C trip Set 1					KLB_-5		E2Q1		Alarm SP+SOE				1												30
Distance protection Z-2 trip Set 1					KLB_-5		E2Q1		Alarm SP+SOE				1												30
Distance protection Z-3 trip Set 1					KLB_-5		E2Q1		Alarm SP+SOE				1												30
Auto-recloser blocked Set1					KLB_-5		E2Q1		Alarm SP+SOE				1												30
Auto-recloser operated Set1					KLB_-5		E2Q1		Alarm SP+SOE				1												30

EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
Overcurrent and Earth Fault Protection					KLB_-5		E2Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132 KV LINE KLB_-5																									
Active Power	L2_PMAC_P		1JHPP_KLB_-5		KLB_-5		E2Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	L2_PMAC_Q		1JHPP_KLB_-5		KLB_-5		E2Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	L2_PMAC_Ia		1JHPP_KLB_-5		KLB_-5		E2Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	L2_PMAC_Ubc		1JHPP_KLB_-5		KLB_-5		E2Q1	kV	Analog Measurement								1								13 or 14
Power Factor	L2_PMAC_cos φ		1JHPP_KLB_-5		KLB_-5		E2Q1	P.F	Analog Measurement										1						13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	???		Stage-I	Q1	KLB_-5	E2Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	???		Stage-II	Q1	KLB_-5	E2Q1			Alarm SP+SOE				1												30
50 B.F. initiated from Remote End	???		DTT Receive	Q1	KLB_-5	E2Q1			Alarm SP+SOE				1												30
Direct Transfer Trip Signal send to Remote end	???		DTT Send	Q1	KLB_-5	E2Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	SJ12C IN MCR			Q1		E2Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E2Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E2Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E2Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E2Q1			Alarm SP+SOE				1												30
Synch Successful				Q1		E2Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E2Q1			Alarm SP+SOE				1												30
132 kV bay E01			132 kV, Double Busbar Single Breaker Scheme, 1 Trafo																						
E1																									
T1		2W	K																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E1Q1 close position			Q1	T1	E1Q1			Circuit Breaker Status			1												30
Busbar Isolators Open/ Close Status	E1Q11 close position			Q11	T1	E1Q11			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E1Q12 close position			Q12	T1	E1Q12			Disc. Switch Status	1														3
Earth Switch Open/ Close Status	E1E11 close position			E11	T1	E1E11			Disc. Switch Status	1														3
Earth Switch Open/ Close Status	T1earthSwitch_close_			ES	T1	T1-ES			Disc. Switch Status	0	1													3
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	T1	E1Q1			Command													1			46
Tap Position Raise/ Lower Command		TAP	T/F with OLTC	T1	T1	T1			Command Only														1		46
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	T1	E1Q1			Alarm SP		1														1
Tap regulator on Remote (NPCC Control)			Local / Remote Switch Position	T1	T1	T1			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132/11 KV TRANSFORMER T1																									
Transformer Differential prot. Operated	T1_diferential_protection_operation				T1		E1Q1		Alarm SP+SOE				1												30
Lockout Prot. Operated (For Differential)	DGT-801C Relay IN MCR				T1		E1Q1		Alarm SP+SOE				1												30
Overcurrent & Earth Fault Protection (General)	T1_over_current				T1		E1Q1		Alarm SP+SOE				1												30
Main Tank Buchholz Relay Operated	T1_lightgas_				T1		E1Q1		Alarm SP+SOE				1												30
OLTC Buchholz Relay Operated	T1heavygas				T1		E1Q1		Alarm SP+SOE				1												30
Transformer Winding Temp. Prot. Operated	T1_winding_temperature_high_				T1		E1Q1		Alarm SP+SOE				1												30
Lockout Protection Operated (General)	DGT-801C Relay IN MCR				T1		E1Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132/11 KV TRANSFORMER T1		E1	HV Side																						
Active Power	T1_PMAC_P	High		132	T1		E1Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	T1_PMAC_Q	High		132	T1		E1Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	T1_PMAC_Ia	High	5.15	132	T1		E1Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	T1_PMAC_Ubc	High		132	T1		E1Q1	kV	Analog Measurement								1								13 or 14
Power Factor	T1_PMAC_cos θ	High		132	T1		E1Q1	P.F	Analog Measurement										1						13 or 14
Tap Position		High		132	T1		E1Q1	Tap.Pos	Analog Measurement											1					13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	DGT-801C Relay IN MCR - BF T1 & BFT2		Stage-I	Q1	T1	E1Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	DGT-801C Relay IN MCR - BF T1 & BFT2		Stage-II	Q1	T1	E1Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	SJ12C IN MCR			Q1		E1Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E1Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E1Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E1Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E1Q1			Alarm SP+SOE				1												30
Synch Successful	Synchronism-CloseE1Q1			Q1		E1Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E1Q1			Alarm SP+SOE				1												30
132 kV bay E03			132 kV, Double Busbar Single Breaker Scheme, 1 Trafo																						
E3																									
T2		2W	K																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E3Q1 close position			Q1	T2	E3Q1			Circuit Breaker Status			1												30
Busbar Isolators Open/ Close Status	E3Q11 close position			Q11	T2	E3Q11			Disc. Switch Status	1														1
Busbar Isolators Open/ Close Status	E3Q12 close position			Q12	T2	E3Q12			Disc. Switch Status	1														1
Earth Switch Open/ Close Status	E3E11 close position			E11	T2	E3E11			Disc. Switch Status	1														3
Earth Switch Open/ Close Status	T2earthSwitch_close_			ES	T2	T2-ES			Disc. Switch Status	0	1													3

EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	T2	E3Q1			Command													1			46
Tap Position Raise/ Lower Command		TAP	T/F with OLTC	T2	T2	T2			Command Only														1		46
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	T2	E3Q1			Alarm SP		1														1
Tap regulator on Remote (NPCC Control)			Local / Remote Switch Position	T2	T2	T2			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132/11 KV TRANSFORMER T2																									
Transformer Differential prot. Operated	T2_diferential_protection_operation				T2		E3Q1		Alarm SP+SOE				1												30
Lockout Prot. Operated (For Differential)	DGT-B01C Relay IN MCR				T2		E3Q1		Alarm SP+SOE				1												30
Overcurrent & Earth Fault Protection (General)	T2_over_current				T2		E3Q1		Alarm SP+SOE				1												30
Main Tank Buchholz Relay Operated	T2_lightgas_				T2		E3Q1		Alarm SP+SOE				1												30
OLTC Buchholz Relay Operated	T2heavygas				T2		E3Q1		Alarm SP+SOE				1												30
Transformer Winding Temp. Prot. Operated	T2_winding_temperature_high				T2		E3Q1		Alarm SP+SOE				1												30
Lockout Protection Operated (General)	DGT-B01C Relay IN MCR				T2		E3Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132/11 KV TRANSFORMER T2		E3	HV Side																						
Active Power	T2_PMAC_P	High		132	T2		E3Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	T2_PMAC_Q	High		132	T2		E3Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	T2_PMAC_Ia	High	5.15	132	T2		E3Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	T2_PMAC_Ubc	High		132	T2		E3Q1	kV	Analog Measurement								1								13 or 14
Power Factor	T2_PMAC_cos θ	High		132	T2		E3Q1	P.F	Analog Measurement										1						13 or 14
Tap Position		High		132	T2		E3Q1	Tap.Pos	Analog Measurement											1					13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	DGT-B01C Relay IN MCR - BF T1 & BFT2		Stage-I	Q1	T2	E3Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	DGT-B01C Relay IN MCR - BF T1 & BFT2		Stage-II	Q1	T2	E3Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	SJ12C IN MCR			Q1		E3Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E3Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E3Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E3Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E3Q1			Alarm SP+SOE				1												30
Synch Successful	Synchronism-CloseE3Q1			Q1		E3Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E3Q1			Alarm SP+SOE				1												30
132 kV bay E04			132 kV, Double Busbar Single Breaker Scheme, 1 Trafo																						
E4																									
T3		2W	K																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E4Q1 close position			Q1	T3	E4Q1			Circuit Breaker Status			1													30
Busbar Isolators Open/ Close Status	E4Q11 close position			Q11	T3	E4Q11			Disc. Switch Status	1															1
Busbar Isolators Open/ Close Status	E4Q12 close position			Q12	T3	E4Q12			Disc. Switch Status	1															1
Earth Switch Open/ Close Status	E4E11 close position			E11	T3	E4E11			Disc. Switch Status	1															3
Earth Switch Open/ Close Status	T3earthSwitch_close_			ES	T3	T3-ES			Disc. Switch Status	0	1														3
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	T3	E4Q1			Command													1			46
Tap Position Raise/ Lower Command		TAP	T/F with OLTC	T3	T3	T3			Command Only														1		46
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	T3	E4Q1			Alarm SP		1														1
Tap regulator on Remote (NPCC Control)			Local / Remote Switch Position	T3	T3	T3			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132/11 KV TRANSFORMER T3																									
Transformer Differential prot. Operated	T3_diferential_protection_operation				T3		E4Q1		Alarm SP+SOE				1												30
Lockout Prot. Operated (For Differential)	DGT-B01C Relay IN MCR				T3		E4Q1		Alarm SP+SOE				1												30
Overcurrent & Earth Fault Protection (General)	T3_over_current				T3		E4Q1		Alarm SP+SOE				1												30
Main Tank Buchholz Relay Operated	T3_lightgas_				T3		E4Q1		Alarm SP+SOE				1												30
OLTC Buchholz Relay Operated	T3heavygas				T3		E4Q1		Alarm SP+SOE				1												30
Transformer Winding Temp. Prot. Operated	T3_winding_temperature_high_				T3		E4Q1		Alarm SP+SOE				1												30
Lockout Protection Operated (General)	DGT-B01C Relay IN MCR				T3		E4Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132/11 KV TRANSFORMER T3		E4	HV Side																						
Active Power	T3_PMAC_P	High		132	T3		E4Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	T3_PMAC_Q	High		132	T3		E4Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	T3_PMAC_Ia	High	5.15	132	T3		E4Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	T3_PMAC_Ubc	High		132	T3		E4Q1	kV	Analog Measurement								1								13 or 14
Power Factor	T3_PMAC_cos θ	High		132	T3		E4Q1	P.F	Analog Measurement										1						13 or 14
Tap Position		High		132	T3		E4Q1	Tap.Pos	Analog Measurement											1					13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	DGT-B01C Relay IN MCR - BF T1 & BFT2		Stage-I	Q1	T3	E4Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	DGT-B01C Relay IN MCR - BF T1 & BFT2		Stage-II	Q1	T3	E4Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service				Q1		E4Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E4Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E4Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E4Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E4Q1			Alarm SP+SOE				1												30
Synch Successful	Synchronism-CloseE4Q1			Q1		E4Q1			Alarm SP+SOE				1												30

EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
Synch Failed				Q1		E4Q1			Alarm SP+SOE				1												30
132 kV bay E07			132 kV, Double Busbar Single Breaker Scheme, 1 Trafo																						
E7																									
T4		2W	K																						
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E7Q1 close position			Q1	T4	E7Q1			Circuit Breaker Status			1													30
Busbar Isolators Open/ Close Status	E7Q11 close position			Q11	T4	E7Q11			Disc. Switch Status	1															1
Busbar Isolators Open/ Close Status	E7Q12 close position			Q12	T4	E7Q12			Disc. Switch Status	1															1
Earth Switch Open/ Close Status	E7E11 close position			E11	T4	E7E11			Disc. Switch Status	1															3
Earth Switch Open/ Close Status	T4earthSwitch_close_			ES	T4	T4-ES			Disc. Switch Status	0	1														3
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	T4	E7Q1			Command													1			46
Tap Position Raise/ Lower Command		TAP	T/F with OLTC	T4	T4	T4			Command Only														1		46
																									1
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	T4	E7Q1			Alarm SP		1														1
Tap regulator on Remote (NPCC Control)			Local / Remote Switch Position	T4	T4	T4			Alarm SP		1														1
PROTECTION SIGNALS			All Transmission Lines, Transformers, Shunt Reactors																						
PROTECTION SIGNALS 132/11 KV TRANSFORMER T4																									
Transformer Differential prot. Operated	T4_diferential_protection_operation				T4		E7Q1		Alarm SP+SOE				1												30
Lockout Prot. Operated (For Differential)	DGT-BD1C Relay IN MCR				T4		E7Q1		Alarm SP+SOE				1												30
Overcurrent & Earth Fault Protection (General)	T4_over_current				T4		E7Q1		Alarm SP+SOE				1												30
Main Tank Buchholz Relay Operated	T4_lightgas_				T4		E7Q1		Alarm SP+SOE				1												30
OLTC Buchholz Relay Operated	T4heavygas				T4		E7Q1		Alarm SP+SOE				1												30
Transformer Winding Temp. Prot. Operated	T4_winding_temperature_high_				T4		E7Q1		Alarm SP+SOE				1												30
Lockout Protection Operated (General)	DGT-BD1C Relay IN MCR				T4		E7Q1		Alarm SP+SOE				1												30
MEASURMENTS																									
MEASUREMENTS 132/11 KV TRANSFORMER T4		E7	HV Side																						
Active Power	T4_PMAC_P	High		132	T4		E7Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	T4_PMAC_Q	High		132	T4		E7Q1	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	T4_PMAC_Ia	High	5.15	132	T4		E7Q1	A	Analog Measurement							1									13 or 14
Voltage (kV) (any one ph. to ph. value)	T4_PMAC_Ubc	High		132	T4		E7Q1	kV	Analog Measurement								1								13 or 14
Power Factor	T4_PMAC_cos θ	High		132	T4		E7Q1	P.F	Analog Measurement										1						13 or 14
Tap Position		High		132	T4		E7Q1	Tap.Pos	Analog Measurement											1					13 or 14
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated	DGT-BD1C Relay IN MCR - BF T1 & BFT2		Stage-I	Q1	T4	E7Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated	DGT-BD1C Relay IN MCR - BF T1 & BFT2		Stage-II	Q1	T4	E7Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	SJ12C IN MCR			Q1		E7Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E7Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E7Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E7Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E7Q1			Alarm SP+SOE				1												30
Synch Successful	Synchronism-CloseE7Q1			Q1		E7Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E7Q1			Alarm SP+SOE				1												30
132 kV bay E06			132 kV, Double Busbar Single Breaker Scheme, Bus Coupler																						
E6																									
BUS COUPLER																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	E6Q1 close position			Q1	BC	E6Q1			Circuit Breaker Status			1													30
Busbar Isolators Open/ Close Status	E6Q11 close position			Q11	BC	E6Q11			Disc. Switch Status	1															1
Busbar Isolators Open/ Close Status	E6Q12 close position			Q12	BC	E6Q12			Disc. Switch Status	1															1
Earth Switch Open/ Close Status	E6E11 close position			E11	BC	E6E11			Disc. Switch Status	1															3
Earth Switch Open/ Close Status	E6E12 close position			E11	BC	E6E12			Disc. Switch Status	1															3
COMMANDS			All CBs & Tap regulators																						
Circuit Breaker Open / Close Command				Q1	BC	E6Q1			Command													1			46
																									1
CB on remote (NPCC Control)			Local / Remote Switch Position	Q1	BC	E6Q1			Alarm SP		1														1
BREAKER FAILURE PROTECTION			All CBs																						
50 B.F. of C.B Operated			Stage-I	Q1	BC	E6Q1			Alarm SP+SOE				1												30
50 B.F. of C.B Operated			Stage-II	Q1	BC	E6Q1			Alarm SP+SOE				1												30
SYNCHROCHECK/ TELECOUPLER																									
In Service	???			Q1		E6Q1			Alarm SP+SOE				1												30
Out of Service				Q1		E6Q1			Alarm SP+SOE				1												30
Frequency Difference				Q1		E6Q1			Alarm SP+SOE				1												30
Phase Difference				Q1		E6Q1			Alarm SP+SOE				1												30
Voltage Difference				Q1		E6Q1			Alarm SP+SOE				1												30
Synch Successful				Q1		E6Q1			Alarm SP+SOE				1												30
Synch Failed				Q1		E6Q1			Alarm SP+SOE				1												30
BUSBARS			All Bus bars																						
132 kV Busbar Measurements																									
132 KV BUSBAR I			BB1																						
VOLTAGE kV	132kVI_section_busvoltage_A				BB1			kV	Analog Measurement								1								13 or 14
FREQUENCY Hz	132kVI_section_busfrequency				BB1			Hz	Analog Measurement									1							13 or 14

EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
132 KV BUSBAR II			BB2																						
VOLTAGE kV	132kVII section busvoltageA				BB2			kV	Analog Measurement								1								13 or 14
FREQUENCY Hz	132kVII_section_busfrequency				BB2			Hz	Analog Measurement									1							13 or 14
132 kV Busbar Protection Signals			All Bus bars																						
Busbar-I Differential Prot. Operated	Bus_diferential_protection_operation		BB1		BB1	1BB1			Alarm SP+SOE				1												30
Busbar-II Differential Prot. Operated			BB2		BB2	1BB2			Alarm SP+SOE				1												30
Busbar Lockout Prot. Operated	???		BB		BB	1BB			Alarm SP+SOE				1												30
TOTAL PLANT																									
Total Plant MW Gross	TOTALP	Gross	MW		JHPP			MW	Analog Measurement					1											13 or 14
Total Plant MVAR Gross	TOTALQ	Gross	MVAR		JHPP			MVAR	Analog Measurement						1										13 or 14
Total Plant MW Net		Net	MW		JHPP			MW	Analog Measurement					1											13 or 14
Total Plant MVAR Net		Net	MVAR		JHPP			MVAR	Analog Measurement						1										13 or 14
STATION/ PLANT SYNCHROCHECK																									
In Service	????				JHPP	JHPP			Alarm SP+SOE				1												30
Out of Service					JHPP	JHPP			Alarm SP+SOE				1												30
Frequency Difference					JHPP	JHPP			Alarm SP+SOE				1												30
Phase Difference					JHPP	JHPP			Alarm SP+SOE				1												30
Voltage Difference					JHPP	JHPP			Alarm SP+SOE				1												30
Synch Successful					JHPP	JHPP			Alarm SP+SOE				1												30
Synch Failed					JHPP	JHPP			Alarm SP+SOE				1												30
CB on remote (NPCC Control)			Local / Remote Switch Position		JHPP	JHPP			Alarm SP		1														1
Direct Transfer Trip Signal send to Remote end					JHPP	JHPP			Alarm SP+SOE		1														30
11 kV Generator bay K1			Generator Bay																						
K1																									
T1		2W	Generator Stepup Transformer/ Unit Transformer																						
G1																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G1_Breaker_K1Q1_close_State		Generator CB G1	Q1	G1	K1Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G1																									
Active Power	G1_P_current_Value				G1		K1Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G1_ReacTI_ve_power_Unit1				G1		K1Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G1_PMAC_CosS				G1		K1Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G1_Exciter_P				T9		T9	MW	Analog Measurement					1											13 or 14
Reactive Power	G1_Exciter_Q				T9		T9	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K2			Generator Bay																						
K2																									
T1		2W	Generator Stepup Transformer/ Unit Transformer																						
G2																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G2_BREAKer_Close_State		Generator CB G2	Q1	G2	K2Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G2																									
Active Power	G2_P_current_Value				G2		K2Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G2_Q_current_Value				G2		K2Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G2_PMAC_CosS				G2		K2Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G2_Exciter_P				T10		T10	MW	Analog Measurement					1											13 or 14
Reactive Power	G2_Exciter_Q				T10		T10	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K3			Generator Bay																						
K3																									
T2		2W	Generator Stepup Transformer/ Unit Transformer																						
G3																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G3_breaker_K1Q1_Close_State		Generator CB G3	Q1	G3	K3Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G3																									
Active Power	G3_P_current_Value				G3		K3Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G3_Q_current_Value				G3		K3Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G3_PMAC_CosS				G3		K3Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G3_Exciter_P				T11		T11	MW	Analog Measurement					1											13 or 14
Reactive Power	G3_Exciter_Q				T11		T11	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K4			Generator Bay																						
K4																									
T2		2W	Generator Stepup Transformer/ Unit Transformer																						
G4																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G4_Breaker_K4Q1_close_State		Generator CB G4	Q1	G4	K4Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G4																									
Active Power	G4_P_current_Value				G4		K4Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G4_Q_current_Value				G4		K4Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G4_PMAC_CosS				G4		K4Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G4_Exciter_P				T12		T12	MW	Analog Measurement					1											13 or 14
Reactive Power	G4_Exciter_Q				T12		T12	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K5			Generator Bay																						
K5																									
T3		2W	Generator Stepup Transformer/ Unit Transformer																						
G5																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G5_BREAKer_Close_State		Generator CB G5	Q1	G5	K5Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G5																									

EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
Active Power	G5_P_current_Value				G5		K5Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G5_Q_current_Value				G5		K5Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G5_PMAC_Cos$				G5		K5Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G5_Exciter_P				T13		T13	MW	Analog Measurement					1											13 or 14
Reactive Power	G5_Exciter_Q				T13		T13	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K6			Generator Bay																						
K6																									
T3		2W	Generator Stepup Transformer/ Unit Transformer																						
G6																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G6_Breaker_Close_State		Generator CB G6	Q1	G6	K6Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G6																									
Active Power	G6_P_current_Value				G6		K6Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G6_Q_current_Value				G6		K6Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G6_PMAC_Cos$				G6		K6Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G6_Exciter_P				T14		T14	MW	Analog Measurement					1											13 or 14
Reactive Power	G6_Exciter_Q				T14		T14	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K7			Generator Bay																						
K7																									
T4		2W	Generator Stepup Transformer/ Unit Transformer																						
G7																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G7_BREAKer_Close_State		Generator CB G7	Q1	G7	K7Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G7																									
Active Power	G7_P_current_Value				G7		K7Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G7_Q_current_Value				G7		K7Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G7_PMAC_Cos$				G7		K7Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G7_Exciter_P				T15		T15	MW	Analog Measurement					1											13 or 14
Reactive Power	G7_Exciter_Q				T15		T15	MVAR	Analog Measurement						1										13 or 14
11 kV Generator bay K8			Generator Bay																						
K8																									
T4		2W	Generator Stepup Transformer/ Unit Transformer																						
G8																									
STATUS INIDCATIONS			All CBs, Isolators, Earth Switches																						
Circuit Breaker Open/ Close Status	G8_Breaker_Close_State		Generator CB G8	Q1	G8	K8Q1			Circuit Breaker Status			1													30
MEASUREMENTS KV GENERATOR G8																									
Active Power	G8_P_current_Value				G8		K8Q1	MW	Analog Measurement					1											13 or 14
Reactive Power	G8_Q_current_Value				G8		K8Q1	MVAR	Analog Measurement						1										13 or 14
Power Factor	G8_PMAC_Cos$				G8		K8Q1	P.F	Analog Measurement										1						13 or 14
Active Power	G8_Exciter_P				T16		T16	MW	Analog Measurement					1											13 or 14
Reactive Power	G8_Exciter_Q				T16		T16	MVAR	Analog Measurement						1										13 or 14
MEASURMENTS AUX TRANSFORMERS																									
MEASUREMENTS 11/0.4 KV TRANSFORMER T5			HV Side																						
Active Power	#1_PMAC_P			132	T5		K9Q10	MW	Analog Measurement					1											13 or 14
Reactive Power	#1_PMAC_Q			132	T5		K9Q10	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	#1_PMAC_Ia			132	T5		K9Q10	A	Analog Measurement							1									13 or 14
MEASUREMENTS 11/0.4 KV TRANSFORMER T6			HV Side																						
Active Power	#2_PMAC_P			132	T6		K10Q10	MW	Analog Measurement					1											13 or 14
Reactive Power	#2_PMAC_Q			132	T6		K10Q10	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	#2_PMAC_Ia			132	T6		K10Q10	A	Analog Measurement							1									13 or 14
MEASUREMENTS 11/0.4 KV TRANSFORMER T7			HV Side																						
Active Power	#3_PMAC_P			132	T7		K11Q10	MW	Analog Measurement					1											13 or 14
Reactive Power	#3_PMAC_Q			132	T7		K11Q10	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	#3_PMAC_Ia			132	T7		K11Q10	A	Analog Measurement							1									13 or 14
MEASUREMENTS 11/0.4 KV TRANSFORMER T8			HV Side																						
Active Power	#4_PMAC_P			132	T8		K12Q10	MW	Analog Measurement					1											13 or 14
Reactive Power	#4_PMAC_Q			132	T8		K12Q10	MVAR	Analog Measurement						1										13 or 14
Amperes (for any one phase)	#4_PMAC_Ia			132	T8		K12Q10	A	Analog Measurement							1									13 or 14
SITE DATA																									
Temperature			Degree Centigrade																		1				13 or 14
HYDROLOGY																									
Forebay Level/ Pond Level / Reservoir Level	Upstream		meters or feets																		1				13 or 14
Tail Race Level	Downstream		meters or feets																		1				13 or 14
Barrage Level (if any)			meters or feets																		1				13 or 14
Total Inflow			cumecs or cusecs																		1				13 or 14
Total Discharge			cumecs or cusecs																		1				13 or 14
G-1 Discharge			cumecs or cusecs																		1				13 or 14
G-2 Discharge			cumecs or cusecs																		1				13 or 14
G-3 Discharge			cumecs or cusecs																		1				13 or 14
G-4 Discharge			cumecs or cusecs																		1				13 or 14
G-5 Discharge			cumecs or cusecs																		1				13 or 14
G-6 Discharge			cumecs or cusecs																		1				13 or 14
G-7 Discharge			cumecs or cusecs																		1				13 or 14
G-8 Discharge			cumecs or cusecs																		1				13 or 14
GENERAL																									
Dummy Circuit Breaker Open/ Close Status			Dummy Breaker in RTU for Testing purpose									1													31
Dummy Circuit Breaker Open/ Close Command			Dummy Breaker in RTU for Testing purpose																			1			46

	EQUIPMENT	Signal Name IN SCADA	Branch No. / TRAFO Type	CONDITION		Connected Equipment	NPCC Nomenclature	Controlling CB	Measurands Units		Double	Single	Double+SOE	Single+SOE	MW	MVAR	AMP	VOLT	HZ	P.F.	Tap Pos.	Other	Open / Close	Raise/ lower	Setpoint	Type Identifier TI
	RTU Local/ Remote Switch Status											1														1
	TELECOM ALARMS																									
	PLC Major Alarm													1												30
	PLC Minorl 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
	Communication Channel (I and II) Failure													1												30
											50	18	16	247	28	28	26	8	2	14	4	14	8	4	0	

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND INTEGRATION OF INDUSTRIAL COMMUNICATION GATEWAY / INTERFACE SYSTEM FOR SIGNAL INTERFACING FROM JINNAH HYDEL POWER STATION (JHPS) WITH NGC / ISMO SCADA-III

MANDATORY TECHNICAL & PERFORMANCE REQUIREMENTS

1. **Communication and Capacity:** The offered solution shall support Modbus TCP and IEC 60870-5-101 / IEC 60870-5-104, simultaneous operation where required, minimum 16 Modbus TCP Client/Master connections, 32 Server/Slave connections, 128 configurable polling commands, at least 2,000 configurable information objects/tags, concurrent acquisition from multiple sources, and minimum two independent IEC-104 interfaces/endpoints.

2. **Signal Acquisition and Sizing:** The approved ISMO-vetted signal list and signal summary shall form the basis of sizing. The identified signals requirement (DI Single, DI Double, DO Double, AI, AO) needed with minimum 30% spare capacity in each signal type (i.e. additional / spare points). The Bidder shall determine the required gateway, processing, communication, I/O and interface quantities and submit the calculation.

3. **Signal Integration:** The solution shall integrate protocol-based and hardwired signals and shall support the approved ISMO protection/control requirements, including line, transformer, bus bar, bus-coupler, generator, breaker-failure, synchro check/tele coupler and tele protection signals, using the technically appropriate available interface. Differing existing tag/text descriptions shall not by themselves be treated as signal unavailability.

4. **Reliability and Electrical Suitability:** The proposed architecture shall provide redundancy/failover appropriate to the required communication path without an avoidable single point of failure, with automatic switchover/recovery where applicable. Gateway/interface equipment shall support redundant DC power inputs or equivalent arrangement and shall be suitable for the available JHPS station DC supply; 48VDC is preferred where available.

5. **Industrial/Environmental Performance:** Equipment shall be suitable for continuous 24/7 unattended operation, with minimum operating temperature of -40°C to +75°C, relative humidity of 5% to 95% non-condensing, and compliance with applicable IEC 61000-4 EMC/immunity and IEC 60068 environmental/shock/vibration requirements or recognized equivalent standards.

6. **SOE and Time Synchronization:** The system shall support time-tagged SOE/event handling, local buffering/storage and transmission/recovery of buffered events after communication restoration where required. Time synchronization shall use the existing JHPS GPS master clock/time source where technically suitable, or an approved GPS/NTP source where required.

7. **Cybersecurity and Existing Infrastructure:** Existing JHPS NC2000/PLC/network/GPS/firewall/security infrastructure shall be assessed and reused where technically compliant and suitable. Cybersecurity shall meet applicable NGC/ISMO requirements and NEPRA Security of IT and OT Regulations 2022, including appropriate network segregation, routing, access control and host whitelisting.

8. **Software, Tools and Handover:** All software, firmware, protocol/feature licenses, engineering/maintenance tools, adapters, converters, dongles, interface cables and credentials required for complete operation, maintenance and restoration shall be included and handed over. Required licenses shall be perpetual unless expressly allowed otherwise. Complete configuration and restoration backups shall be provided.

9. **Acceptance and Completion:** The project shall be considered complete only after successful point-by-point mapping of the approved signal list, live communication, required signal exchange, SOE/time verification, interface/protocol testing, FAT/SAT as applicable, failover/recovery testing and commissioning to the satisfaction of WAPDA/JHPS and, where applicable, NGC/ISMO. Any deficiency attributable to the Contractor/supplied solution shall be rectified at no additional cost.

10. **Warranty and Completeness:** Minimum one (01) year comprehensive warranty from successful final commissioning and takeover. The offered solution shall be turnkey and complete; any equipment, material, software, license, interface, cable, tool or service necessary to meet the stated requirements shall be deemed included even if not separately enumerated in the BOQ.

SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND INTEGRATION OF INDUSTRIAL COMMUNICATION GATEWAY / INTERFACE SYSTEM FOR SIGNAL INTERFACING FROM JINNAH HYDEL POWER STATION (JHPS) WITH NGC / ISMO SCADA-III

IMPORTANT NOTES:

1. Besides the conditions specified herein, this procurement shall be governed by the applicable WAPDA Purchase Regulations, General Conditions of Contract and amendments issued from time to time.

2. In case the tender opening date falls on a public holiday, the tender shall be opened on the next working day at the same time and venue.

3. The JHPS scope under this tender covers the plant-side gateway/interface system with local Workstation, associated signal interfacing, installation, configuration, testing and commissioning. Communication connectivity beyond the plant-side gateway toward the NGC/ISMO SCADA-III network remains the responsibility of the concerned Telecom/NGC authorities, while the Contractor shall provide necessary technical support for interface and end-to-end testing.

4. The approved ISMO-vetted Signal List, Signal Summary and ISMO protection signal requirements attached with the tender documents shall form an integral part of the tender and shall be the basis for sizing, mapping, integration and commissioning.

5. Existing JHPS GPS/time-synchronization and firewall/security infrastructure shall be assessed first and utilized where technically compliant and suitable. New equipment shall be supplied only where required by the approved solution.

6. All equipment supplied shall be brand new, unused and from the latest available product line unless otherwise approved in writing by WAPDA. The Bidder shall ensure completeness of the offered solution and shall clearly identify all deviations/exclusions in its bid.

7. External-agency dependencies/delays, including those attributable to NGC/ISMO after completion of the Contractor's contractual scope, shall be dealt with under the applicable contractual provisions, subject to documentary evidence.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Past Experience / Contracts

Contracts over *[insert amount]* during the last three years:				
Procuring Agency	Value	Year	Goods/Services Supplied	Country of Destination

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

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

☐ Not debarred due to deviation from commitment of Bid Securing Declaration-☐ 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)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Procuring Agency: *[insert full name]* Address of Procuring Agency: *[insert street/city/country]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amount]*
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
☐ 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)**

[insert year]	*[insert amount]*	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: *[insert full name]* Address of Procuring Agency: *[insert street/city/country]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Procuring Agency" or "Supplier"]* Status of dispute: *[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]*	*[insert amount]*
☐ No consistent history of court/arbitral award decisions in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.4. ☐ 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)**
[insert year]	*[insert percentage]*	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Agency: *[insert full name]* Address of Procuring Agency: *[insert street/city/country]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Procuring Agency" or "Supplier"]* Court/ arbitral award decision: *[Indicate if the award decision was against the Applicant or any member of a joint venture.]y]*	*[insert amount]*

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					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS