Standard Bidding Document

Supply & Installation of Variable Refrigerant Flow (VRF) Air Conditioning System
(Goods)

National

Single Stage-One Envelope

November 13, 2026

Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)),Deputy Director
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REQUEST FOR BIDS

PROCUREMENT OF GOODS

1. The **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO))** has reserved Funds for the procurement planned for FY **2026-27**. The **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO))** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Supply & Installation of Variable Refrigerant Flow (VRF) Air Conditioning System**" with the reference of **"P138114"**

2. The **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO))** 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, 2026 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 amount described in Bid Security Section in Bidding Document in the form of **Banker's Cheque** 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/138114** 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

Wednesday, November 25, 2026 11:00 AM. E-bids will be opened using **EPADS v2.0** on the same day at **Wednesday, November 25, 2026 11:30 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 65 of Public Procurement Rules, 2026 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.gov.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 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-2 I 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.

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

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.

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).

3.2 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.

3.3 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.

3.4 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 submission of false or misleading information or performance failure or involved in disrupting procurement process or due to breach of bid Securing Declaration.

3.5 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.

3.6 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 10.1** 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

Section IX Integrity Pact

Section X Declaration of Beneficial Ownership Information.

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 its 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 two (02) 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 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.

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.

9.3 To give prospective Bidders reasonable time in which to take an addendum/corrigendum into account in preparing their Bids, the Procuring Agency may, at its discretion, extend the deadline for the submission of Bids 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 the documents required in the **BDS**.

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

Documentary evidence established in accordance with ITB 13 that the Bidder is eligible and/or qualified for the subject bidding process;

Documentary evidence established in accordance with **ITB 03** 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;

Documentary evidence established in accordance with ITB 12 that the goods and related services to be supplied by the Bidder are eligible goods and services, and conform to the Bidding Documents;

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

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 Pursuant to **ITB 10,** the Bidder shall furnish, as part of its Bid, all those documents establishing the Bidder's eligibility to participate in the Bidding process and/or its qualification to perform the contract if its Bid is accepted.

14. Form of Bid

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

15. Bid Prices

15.1 The Bid 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 In the event that any item(s) in the Price Schedule are not quoted, and such omission is determined by the Procuring Agency not to materially affect the responsiveness of the Bid, the Procuring Agency may, for the sole purpose of bid evaluation and comparison, assign a price to the unquoted item(s) in accordance with the following methodology:

(a) The assigned price shall be the average of the prices quoted for the same item(s) by all substantially responsive bidders; or

(b) In cases where no comparable quotations are available, the Procuring Agency shall apply the corresponding item price from its duly approved cost estimate for evaluation purposes.

The prices so assigned shall be utilized exclusively for bid evaluation and comparison, and shall not, under any circumstances, be incorporated into or form part of the Contract Price.

15.4 The Bid price to be quoted in the Form of Bid in accordance with **ITB 13.1** 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 42 (2) of the Public Procurement Rules, 2026.

17. Bids Validity Period

17.1 Such extensions may be more than one time but the total period of such extension shall not exceed the original bid validity period.

17.2 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.

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 through EPADS v2.0,. The Bid Security provided under **ITB 17** 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 36 of the Public Procurement Rules, 2026.

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 or in another freely convertible currency, and it shall be in the form specified in the BDS which shall be in any of the following:

a) a bank guarantee, a bank draft, an irrevocable letter of credit issued by a Scheduled bank in the form provided in the Bidding Documents or another form acceptable to the Procuring Agency;

b) a cashier’s or certified cheque; or

c) another security if indicated in the BDS.

The Bid Security shall be valid for twenty-eight (28) days beyond the end of the validity of the Bid. This shall also apply if the period for 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 18.7** 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 Bid 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 documents, 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. cancellation of procurement proceedings.

e. the withdrawal of the Bid prior to the deadline for the submission of Bids, unless the Bid document stipulates that no such withdrawal is permitted.

18.8 The successful Bidder's Bid 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 16.2**; 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.

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 before bid submission deadline.

21.1 The Technical and Financial Bids, shall be submitted electronically through EPADS, before bid submission deadline. The bid submission option shall be automatically disabled once the deadline is over.

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 respective 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 respective 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 fails 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 at 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 respective Evaluation Committee.

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

24. Clarification of Bids

24.1 To assist in the examination, evaluation and comparison of Bids of the Bidders, the respective Bid Evaluation Committee 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 Bid:

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 bid(s) 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 respective Bid Evaluation Committee 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 respective Bid Evaluation Committee'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.

25.4 If a Bid is not substantially responsive, it will be rejected by the respective Bid Evaluation Committee and may not subsequently be evaluated for complete technical responsiveness.

26. Examination of Terms and Conditions; Technical Evaluation

26.1 The respective Bid Evaluation Committee 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 respective Bid Evaluation Committee 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 respective Bid Evaluation Committee determines that the Bid is not substantially responsive in accordance with **ITB,** 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 price 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 respective Evaluation Committee 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 Bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

27.2 The amount stated in the Bid will be adjusted by the respective Bid Evaluation Committee 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 For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency in accordance with Rule 42(2) of Public Procurement Rules,2026.

29. Evaluation of Bids

29.1 The Bids, quotations, or proposals shall be evaluated by the respective evaluation committees as per evaluation criteria prescribed in the Bidding Documents in accordance with Rule 11, 12 and 13 of the Public Procurement Rules, 2026.

29.2 While evaluating the bids, the procuring agency shall consider the following:

i. Bids will be evaluated on lump sum bid basis or items wise or Lot wise (contracts), as specified in the BDS; and the Bid Price;

ii. correction of arithmetic errors in accordance with ITB 27;

30. Domestic Preference

30.1 The respective Bid Evaluation Committee shall evaluate and compare bids, allow for preference to domestic bidders, while competing with the international bidders in accordance with the policies of the 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 **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.

31.3 **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.

31.4 **Quality Based Selection (QBS)**
After 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.

31.5 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.

31.6 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)(xxviii) of the Public Procurement Rules, 2026.

32. Abnormally Low Financial Bids

32.1 An abnormally low bid is a bid that, in light of the Procuring Agency's cost estimate, market conditions, or other received bids, appears to be unrealistically low and may not be sustainable for successfull contract execution.

32.2 **Where 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.**

32.3 The Procuring Agency may reject an Abnormally low financial bid in accordance with Rule 43 of the Public Procurement Rules, 2026.

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

1. Comparing the Bid price with the cost estimate;

2. Comparing the Bid price with the Bid(s) 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.

32.5 The respective Bid Evaluation Committee will determine to its satisfaction whether the Bidder that is selected as having submitted the successful bid is qualified to perform the contract satisfactorily.

32.6 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.

32.7 Respective Bid Evaluation Committee 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.

32.8 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 Bid, in which event the respective Bid Evaluation Committee 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 Successful Bidder.

34. Negotiations

34.1 In accordance with Rule 52A of Public Procurement Rules, 2026, without changing the cost and scope of work or services, the procuring agency may

negotiate with the successful bidder (with a view to streamline the work or task execution, at the time of contract finalization) on methodology, work plan, staffing and special conditions of the contract.

There shall be no limitation on the successful bidder offering voluntary reduction in bid price without affecting the quality or scope of the procurement.

35. Procuring Agency's 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 45 of the Public Procurement Rules, 2026.

36. Cancellation of Procurement

36.1 The procuring agency reserves the right to cancel the procurement proceedings in accordance with Rule 46 of the Public Procurement Rules, 2026.

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

37.1 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.

38. Notification of Award

38.1 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 48 of the Public Procurement Rules, 2026.

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).

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

39. Signing of Contract

39.1 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.

39.2 Immediately after the Redressal of grievance by the GRC (if any), and **after fulfillment of all conditions precedent** of the Contract Form, the successful Bidder and the Procuring Agency shall sign the Contract.

40. Corrupt & Fraudulent Practices

40.1 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 engaging in any corrupt and fraudulent practices.

F. Grievance Redressal & Complaint Review Mechanism

41. Constitution of Grievance Redressal Committee

41.1 The Grievance Redressal Committee shall address the grievance, if any submitted by any party, including the bidder, in accordance with Rule 65 of the Public Procurement Rules, 2026 read with Redressal of Grievances Regulations, 2021.

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 65(7) of the Public Procurement Rules, 2026 to be read with Redressal of Grievances Regulations, 2021.

G. Mechanism of Blacklisting

42. Mechanism of Blacklisting

42.1 The Procuring Agency shall initiate blacklisting proceedings against any bidder, supplier, or contractor in accordance with the Rule 25 of the Public Procurement Rules, 2026.

42.2 The blacklisted/debarred bidder may file the review petition before the Authority in accordance with Rule 25 (6) of the Public Procurement Rules, 2026 to be read with Procedure of filing and disposal of Review Petitions Regulations, 2021.

43. Contract Management

43.1 For each procurement, the Procuring Agency shall designate a Contract Manager, who shall be duly responsible for the efficient management and administration of the contract in strict compliance with the provisions set forth under Rules 58, 59, and 60 of the Public Procurement Rules, 2026.

44. Inspection of goods and evaluation of services.

44.1 The Inspection Committee or the Firm shall have the right to conduct inspections of the goods in accordance with Rule 61 of the Public Procurement Rules, 2026.

45. Socio-economic development.

45.1 In accordance with Rule 63 of the Public Procurement Rules, 2026, preference may be granted to small and medium enterprises and marginalized groups in accordance with the policies notified by the Federal Government.

46. Environmental objectives

46.1 As per Rule 64 of the Public Procurement Rules, 2026, the procuring agency may seek to procure goods with a reduced environmental impact throughout their life cycle when compared to goods services with the same primary function that may otherwise be procured.

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: **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO))**

The subject of procurement is: **Supply & Installation of Variable Refrigerant Flow (VRF) Air Conditioning System**

Period for Provision of Goods:

Extension Period (if applicable):

Expected commencement date: **Thursday, December 31, 2026**

BDS Clause Number 2
ITB Number 2.1

Source of funds [Enter source of funds]

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

Name and identification number of the Contract: **P138114**

Identification Number:

BDS Clause Number 3
ITB Clause Number 3.1

Eligible Bidder [Enter eligibility of bidder]

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 Clause Number 4.1

Eligible goods and related services [Enter requirements for eligible goods and related services, if any]

ITB Number 8.1

The Bidders may seek clarifications through **EPADS v2.0** : Clarification Date: Sunday, November 22, 2026
Pre-Bid Meeting: Wednesday, November 18, 2026 10:30 AM
Venue: ISMO, Pitras Bukhari Road, Sector H-8/1.
Meeting Link: https://us02web.zoom.us/j/83928431287?pwd=xSVXkfM3R9mbCoLgLRslf3OKHiTkBl.1

ITB Number 8.2

The Bidders may seek clarifications through **EPADS v2.0** : Clarification Date: Sunday, November 22, 2026
Pre-Bid Meeting: Wednesday, November 18, 2026 10:30 AM
Venue: ISMO, Pitras Bukhari Road, Sector H-8/1.
Meeting Link: https://us02web.zoom.us/j/83928431287?pwd=xSVXkfM3R9mbCoLgLRslf3OKHiTkBl.1

ITB Number 8.3

The Bidders may seek clarifications through **EPADS v2.0** : Clarification Date: Sunday, November 22, 2026
Pre-Bid Meeting: Wednesday, November 18, 2026 10:30 AM
Venue: ISMO, Pitras Bukhari Road, Sector H-8/1.
Meeting Link: https://us02web.zoom.us/j/83928431287?pwd=xSVXkfM3R9mbCoLgLRslf3OKHiTkBl.1

ITB Number 8.5

Pre-bid meeting will be/will not be held [Tick the appropriate] If yes write down the time, and date of the pre-Bid meeting:

[The meeting should take place not later than one weeks before the deadline for Bid submission.]

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: No

BDS Clause Number 6
ITB Number 11.1

Documents required / not required with bid submission [enter list of documents] Samples required / not required with the bid [Enter the names and number of samples]
Items/Lots and their 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: **120 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**
Instrument of Bid Security shall be in the Name of : **Independent System and Market Operator (Guarantee) Limited (ISMO)**
The Bid Security shall be in the form of: **Banker's Cheque**

ITB Number 18.2

The address for submission of original bid security is [Insert the address for bid security submission]

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;

ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory before bid submission deadline.

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

The deadline for Bids submission is: **Wednesday, November 25, 2026 11:00 AM**

Day *:* ***Wednesday***

Date: ***Wednesday, November 25, 2026***

Time *:* ***11:30 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 *:* ***Wednesday***

Date: ***Wednesday, November 25, 2026***

Time *:* ***11:30 AM***

ITB Number 29.2

The procuring agency shall consider the following:
lump sum bid basis; or
items wise; or
Lot wise (contracts),

ITB Number 30.1

BDS Clause Number 14
ITB Number 31.1

Domestic Preference [applicable / not applicable]

ITB Number 31.2

Selection technique adopted will be:
The Procuring Agency shall use any of the following evaluation techniques for determination of successful bid.

Least Cost Base Selection (LCBS)
Quality and Cost Based Selection (QCBS)
Quality Based Selection (QBS)
[Insert the Evaluation Technique]

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.

ITB Number 42.2

The Address of PPRA Grievance Redressal Appellate Committee to submit a copy of grievance:

Grievance Redressal Appellate Committee,
Public Procurement Regulatory Authority
1st Floor, G-5/2, Islamabad, Pakistan
Tel: +92-51-9202254

Eligibility Criteria

All Active Taxpayers shall be eligible to participate in the procurement process, unless expressly excluded or otherwise restricted under the Eligibility Criteria specified by the Procuring Agency.

Required Registration
FBR (NTN) FBR (GSTN)

Eligibility Criteria	Document
Valid registration with Pakistan Engineering Council in Category C – 4 with relevant PEC Code i.e. ME01 [in case of expired PEC Certificate, the participating firm must provide documentary evidence on account of renewal process]. PEC Registration Certificate clearly reflecting Category C-4 and Specialization Code ME-01	Yes
The bidder shall be an authorized dealer/distributor/reseller or manufacturer of the offered VRF brand. Manufacturer's authorization / dealership certificate	Yes
The bidder shall have at least three (03) years' experience in supply, installation, testing and commissioning of VRF system of comparable nature/capacity from the date of registration. Experience list with copies of contracts / work orders / completion certificates	Yes
The bidder shall have completed at least three projects of 70 Ton or more during the last five years. Purchase / Work Order, Contract Agreement / Completion Certificate	Yes

The bidder shall have a functional after-sales service support facility in Islamabad and shall provide technical support, maintenance and availability of spare parts for the offered VRF System. Service facility details along with proof of office, ownership document, rental agreement etc.	Yes
Minimum Average Annual Sales Turnover of PKR 50 Million during the last three (03) financial years. Latest Audited Financial Statements with Tax Return	Yes
Affidavit that the Bidder has not been blacklisted or debarred by any Government /Semi-Government Organization / SOE, as of the date of bids opening, on Stamp Paper of Rs 100. Affidavit / Undertaking Stamp Paper of Rs 100.	Yes
Site Visit Certificate issued by ISMO Attach Copy of Certificate	Yes

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

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)

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Items/Lots

Items Without Lots :

Item	UNSPSC	Delivery Schedule	Quantity	Bid Security	Manufacturer / Dealer Authorization	Warranty
Supply, Installation, Configuration, Testing, and Commissioning of a Variable Refrigerant Flow (VRF) Air Conditioning System, Including All Necessary Accessories (Turnkey Solution)	Air conditioning or ventilating or refrigeration equipment manufacture services	**Address:** ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory **Schedule:** 120 **Quantity:** 1/Packege/Lot/Solution	1/Packege/Lot/Solution	600000 PKR	Any	1 Years

Related Services of Goods:

No

Items/Lot Specification

Items Without Lots :

Item: Supply, Installation, Configuration, Testing, and Commissioning of a Variable Refrigerant Flow (VRF) Air Conditioning System, Including All Necessary Accessories (Turnkey Solution)

UNSPSC: Air conditioning or ventilating or refrigeration equipment manufacture services

Specifications / Requirementsss:

Detailed Specifications alongwith scope of work / Service is mentioned in Annexure I.

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. The “Arbitrator” is the person appointed with mutual consent of both the parties, to resolve contractual disputes as provided for in the General Conditions of the Contract GCC Clause 35 hereunder.

c. “Authority” means Public Procurement Regulatory Authority.

d. The “Commencement Date” is the date when the Supplier shall commence execution of the contract as specified in the SCC.

e. “Completion date” means the date of completion of the Contract by the Bidder as certified by the Procuring Agency.

f. “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;.

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

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

i. “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;

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

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

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

m. “Defective Goods” are those goods which are below standards, requirements or specifications stated by the Contract.

n. “Delivery” means the transfer of the goods from the supplier equipment, machinery, and /or other materials which the Supplier is required to supply to the Procuring Agency under Contract.

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

p. “Force Majeure” means an unforeseeable event which is beyond reasonable control of either 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.

For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances. and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by Government agencies.

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

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

s. “Government” means the Government of Pakistan;

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

u. The “Services” means the work to be performed by the Bidder pursuant to this Contract and as prescribed in the Specifications and Schedule of Activities included in the Bidder’s Bids;

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

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

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

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

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

a. “Origin” means the place where the Goods were mined, grown, or produced or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new produce results that is substantially different in basic characteristics or in purpose or utility from its components.

b. “Specification” means the Specification of the Goods and performance of incidental services in accordance with the relevant standards included in the Contract and any modification or addition made or approved by the Procuring Agency.

c. “Procuring Agency” means: -
any Ministry, Division, Department or any Office of the Federal Government;
any authority, corporation, body or organization established by or under a Federal Law or which is owned or controlled by the Federal Government;

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. Standard

6.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, the American Standards (such as ACI, IEEE, ASME, etc.) or the Pakistani standards such as PSQCA Such standards shall be the latest issued by the concerned institution.

7. Delivery/Location

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

8. Authorized Representatives / Authority of Member in charge

8.1 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 the Contract

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 Contract, 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 16** 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, 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. However, such period shall not exceed sixty (60) days.

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 16.**

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 The Performance Security (or Guarantee) shall be provided to the Procuring Agency no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form acceptable to the Procuring Agency as specified in SCC, and denominated in the types and proportions of the currencies in which the Contract Price is payable as specified in the SCC.

23.2 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

23.3 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.

23.4 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.

23.5 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.**

23.6 The bid security of the successful bidder shall not be substituted with the Performance Guarantee.

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 Upon the commencement of the Procurement Contract, any disputes arising between the contracting parties shall be resolved in accordance with Rule 66 of the Public Procurement Rules, 2026.

37.2 The procuring agency may 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.

38. Change Orders

The Procuring Agency may at any time, by a written order given to the Supplier, make changes within the general scope of the Contract in any one or more of the following:

a)Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring Agency;
b)The method of shipment or packing;
c)The place of delivery; and/or
d)The Services to be provided by the Supplier.

39. Contract Amendenments

39.1 Subject to GCC Clause 32, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

40. Sub-Contracts

40.1 The Supplier shall consult the Procuring Agency in the event of subcontracting under this contract if not already specified in the Bid. Subcontracting shall not alter the Supplier's obligations.

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: **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory**

The Supplier is:

The title of the subject procurement is: **Supply & Installation of Variable Refrigerant Flow (VRF) Air Conditioning System**

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:

The Authority:

Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director
ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory
+92-333-870-6847
abdul.rehman@ismo.gov.pk

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:

Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director
ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory
+92-333-870-6847
abdul.rehman@ismo.gov.pk

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 **0.10%** to **10.00%** of the Contract value, in accordance with the extent of performance failure & the cost of investigating such incidents as judged by the Authority.

Number of GC Clause 23

Performance Guarantee:

Instrument of Performance Guarantee shall be in the Name of : **Independent System and Market Operator (Guarantee) Limited (ISMO)**

The amount of performance guarantee shall be **5.00%** of the contract price in acceptable form of **Call at Deposit, Bank Guarantee**

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, bearing relevant reference numbers of the equipment (Certificate from supplier)

For Physical Fitness having No Damages (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)

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

Original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;

Copies of the packing list identifying contents of each package;

Insurance Certificate;

Manufacturer's or Supplier's Valid Warranty Certificate;

Inspection Certificate issued by the Nominated Inspection Agency (if any), and the Supplier's Factory Inspection Report;

Certificate of Origin.

The above documents would be required even if the equipment has already been imported and is available with the supplier ex-stock

Number of GC Clause 37

Following is the guidance for Dispute Resolution

(a) For Contracts to be entered with foreign Contractor/ Service Provider:

All disputes arising in connection with the present Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said Rules.

(b) For Contracts to be entered with nationals of Pakistan:

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 in accordance with GCC clause 38.

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.:***P138114***

Alternative No.: **[insert identification No if this is a Bid for an alternative]**

To: **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory**

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.

Signed: [insert signature of person whose name and capacity are shown] In the capacity of
[insert legal capacity of person signing the Bid Securing Declaration]

Name: [insert complete name of person signing the Bid Securing Declaration]

Duly authorized to sign the Bid for and on behalf of: [insert complete name of Bidder]

Dated on day of , [insert date of signing]
Corporate Seal (where appropriate)

Contract Form

SECTION IX: CONTRACT FORMS

THIS AGREEMENT made the _____ day of _____ 20_____ between **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory**

(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 of Variable Refrigerant Flow (VRF) Air Conditioning System (*P138114*)** 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: **Independent System and Market Operator (Guarantee) Limited (ISMO) (Independent System and Market Operator (ISMO)), Deputy Director ISMO, Pitras Bukhari Road, Sector H-8/1., Islamabad Capital Territory**

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

Annexure I

Information (Read-Only)

See Form Under Additional Forms and Documents: **Annexure I** (page number: 71)

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Procurement Forms

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

Additional Forms and Documents

ANNEXURE I

SUPPLY AND INSTALLATION OF VARIABLE REFRIGERANT FLOW (VRF) AIR CONDITIONING SYSTEM

KEY INFORMATION	
Bid Security	As specified in Bid Data Sheet in **favor of Independent System & Market Operator (Guarantee) Limited**
Performance Security	5% of the Contract Amount in favor of Independent System & Market Operator (Guarantee) Limited
Bidding Procedure	Single Stage – One Envelop
Selection Method	Least Cost Based Selection (LQBS)
Bid Validity	120 Days
Delivery /Installation Period	Mentioned in Delivery Schedule
LD Charges	0.1% per day / 10% Maximum
Delivery / Installation Site	NTS Building 5th Floor, H 8/1 Islamabad
Warranty	12 Months Comprehensive Warranty including Parts & Labor
NTN	**H239814**

MINIMUM ELIGIBILITY CRITERIA

Sr. No.	Eligibility Requirement	Documentary Evidence
1.	The bidder shall have **valid & active NTN / Sales Tax Registration** with FBR.	Updated Screen Print with NTN & GST No.
2.	The bidder shall be an **authorized dealer/distributor/reseller or manufacturer** of the offered **VRF** brand.	Manufacturer's authorization / dealership certificate
3.	Valid registration with Pakistan Engineering Council in Category C – 4 with relevant **PEC Code i.e. ME01** ***[in case of expired PEC Certificate, the participating firm must provide documentary evidence on account of renewal process],***	PEC Registration Certificate clearly reflecting **Category C-4 and Specialization Code ME-01**
4.	The bidder shall have at least **three (03) years' experience** in supply, installation, testing and commissioning of VRF system of comparable nature/capacity from the date of registration.	Experience list with copies of contracts / work orders / completion certificates
5.	The bidder shall have completed at least three projects of **70 Ton** or more during the last five years.	Purchase / Work Order, Contract Agreement / Completion Certificate
6.	The bidder shall have a **functional after-sales service support facility** in Islamabad and shall provide technical support, maintenance and availability of spare parts for the offered VRF System.	Service facility details and undertaking
7.	**Minimum Average Annual Sales Turnover of PKR 50 Million during the last three (03) financial years.**	Latest Audited Financial Statements with Tax Return
8.	Affidavit that the **Bidder** has not been blacklisted or debarred by any Government /Semi-Government Organization / SOE, as of the date of bids opening, on non-judicial Stamp Paper of Rs 100.	Affidavit / Undertaking non-judicial Stamp Paper of Rs 100.
9.	Site Visit Certificate issued by ISMO	Copy of Certificate

TENTATIVE BILL OF QUANTITIES (BOQS)/ TECHNICAL SPECIFICATIONS

The **Bill of Quantities (BOQs)** provided hereinunder are **tentative/ estimated** and are provided purely for the understanding of the requirements, of the bidder(s). The bidder(s) shall be defining and providing complete Bill of Quantities (BOQs) in all respects based on the design of the Turnkey Solution, which they shall be offering.

Sr. No.	Item Description	UoM / TR	Qty
1	Supply & Installation of **Latest Technology of Front Discharge Modular DC Inverter Controlled Variable Refrigerant Flow (VRF)** Heat Pump Type Multi Split A/c System complete with built-in auto control system and Y joints including unloading, lifting, placing and fixing at foundation at locations as shown on drawings. The units shall be factory charged with Ozone Friendly refrigerant. The unit shall be complete as packaged unit with refrigerant cooling PCB card technology, smart oil control system, factory applied anti-corrosion coating, dual sensing load control, auto dust removal system for outdoor units, built in all control and safety devices for smooth operation of the system on ambient conditions of -20°C to 52°C continuous operation, complete in all respects.		
A	**Outdoor Condensing Units**		
i	Condensing Unit (No. of Outdoor Units: Minimum: 2, Maximum: 3) Total Capacity: 70 Ton or more	-	-
B	**Indoor Condensing Units** Supply of Decorative Ceiling Cassette Type Indoor Units to be connected with All DC Inverter reversible heat pump type outdoor condensing units. The indoor unit shall be of capacities as specified, the indoor unit shall be complete with variable speed fan motors electronic thermostatic, coils, insulated casing, condensate drain pan and DC drain pump, controls and with programmable remote or wall mounted thermostat and shall also be provided all accessories and fittings etc, including refrigerant piping, electrical and control wiring, complete in all respects as per drawings, specification and to the entire satisfaction and as approved by the Client.		
i	Ceiling Cassette	1.0	2
ii	Ceiling Cassette	1.6	6
iii	Ceiling Cassette	2.0	1
iv	Ceiling Cassette	2.3	6
v	Ceiling Cassette	3.2	5
vi	Ceiling Cassette	4.0	3
vii	Fresh Air Ducted	4.0	1
viii	Fresh Air Ducted	6.4	1
C	**Pipe Work & Accessories** Providing, Installation, Testing Commissioning of Hard Copper Refrigerant Piping to be connected among all indoors and outdoor units of All DC Inverter Reversible heat pump type air conditioning system, The copper piping shall include, liquid &		

	suction line with factory supplied ref-net joints, and all fittings and fixtures involved like bend / elbow, etc, the copper piping shall be of L type, this also includes the preformed insulation of entire copper piping network. All refrigerant piping shall be further insulated with minimum high density closed cell foam insulation of 13mm thickness with aluminium foil. The closed cell foam insulation shall be of approved manufacturer as advised by the client, shall be properly supported with approved galvanized hanging and support system. The refrigerant piping shall be done with approved quality brazing rods. The refrigerant piping shall be sized on manufacturer's software and shall be approved by the Client before installation, the piping also includes, pressure testing, vacuum making and all ancillary processes, and charge of any additional refrigerant if required complete in all respects as per drawings, specifications and as approved by the Client. **Material: 99.9% Copper, Make of Mullar, Golden Dragon, TROX or Equivalent**		
i	Ø 1/4"	RFT	85
ii	Ø 3/8"	RFT	385
iii	Ø 1/2"	RFT	150
iv	Ø 5/8"	RFT	310
v	Ø 3/4"	RFT	160
vi	Ø 7/8"	RFT	470
vii	Ø 1-1/8"	RFT	85
viii	Ø 1-1/4"	RFT	76
ix	Ø 1-5/8"	RFT	310
x	Ø 1-1/2"	RFT	95
D	**Condensate Drain Piping & Insulation** Providing, fabrication and Installation of Condensate Drain Piping & Insulation, the condensate drain pipe shall be UPVC Sch-40 pipes including all types of fittings and fixture including tees, elbows, traps, hangers, anchor bolts, rubber vibration mounts etc etc., the condensate drain piping shall be further covered with 9mm thick closed cell foam insulation. All condensate drain piping shall be in the minimum slope of 1% in the direction of flow complete in all respects as per drawings and as approved by the Client. **UPVC/ PVC Items: Popular, Adamjee, Pak Arab or Equivalent** **Insulation Material / Item: Superlone, Aeroflex/Armaflex, Aero foam/ Armacell or equivalent**		
i	Dia 1.00"	RFT	325
ii	Dia 1.25"	RFT	275
iii	Dia 1.50"	RFT	60
E	**Miscellaneous Items / Jobs**		
i	**Installation of Indoor & Outdoor Units as per actual**	-	-
ii	**Central Controller**	No's	1
a	**Wireless Controllers**	No's	30
b	**Supply, Fabrication & installation of G.I ducting & Sheet Metal work complete with hangers, bracing, splitter dampers. Make of IS Pakistan or Equivalent**		

iii	US Guage 26	SFT	150
a	US Guage 24	SFT	1450
b	**Supply & Installation of Aluminium Air Devices as specified and scheduled**		
iv	4D Supply / Return / Fresh / Exhaust Air Diffusers	SFT	8
v	L Fresh / Exhaust Air Louvers	SFT	5
vi	Supply & installation of Communication Cabling (flexible shielded) for indoor unit, from respective Outdoor unit, inside PVC Conduit 2C x 1.5 mm² with bends, sockets, junction box complete in all respect. Cable make of Pakistan Cable, Fast Cable, Newage or Equivalent	RFT	2250
vii	Supply & Installation of 18 guage G.I Sheet Volume control dampers as specified	SFT	5
viii	Supply & Installation of pre-assembled Flexible Duct Connectors factory fabricated with coated woven fabric and G.I. Collars both by means of double lock seam on each side as specified	RFT	50
ix	Supply & Installation of 2" thick washable aluminium filters installed in Fresh air duct fabricated with min. 12 mesh layers as specified	SFT	4
x	Supply and installation of 10 mm thick, fiber-free, super- silent, microbe-resistant closed-cell XLPE (Cross-Linked Polyethylene) acoustic Sound Liner complete with adhesives and seaters as specified	SFT	150
xi	Supply & installation of thick FM/UL approved Self-adhesive closed cell polyolefin insulation with Alupet foil having density of 25-40 Kg/ms & thermal conductivity 0.035 w/m0C at 230C & Class 'O fire rating as specified	SFT	1,650
xii	Supply & installation of G.I Sheet Construction Pipe Tray with top covering required to install refrigerant pipes running at exposed roof/floor 12 x 4	RFT	40
xiii	Painting of metal frames, and metallic structures where installed as specified.	JOB	1
xiv	Inspection, testing, adjusting, Gas Charging, Commissioning, Air Balancing etc. of Complete system	JOB	1
xv	Related Civil works including wall / slab cutting, patching, plastering etc. and construction of equipment foundations	JOB	1
xvi	Area drawings and As-built drawings.	JOB	1
xvii	Extra Refrigerant Charge for VRF System	Kg	70
xviii	Testing & Commissioning	Job	1

SCOPE OF WORK/ TECHNICAL REQUIREMENTS

TECHNICAL SCOPE OF WORK

The scope of work shall comprise the design, supply, installation, testing, commissioning, and handing over of an inverter technology-based Variable Refrigerant Flow (VRF) air conditioning system (Heat and Cool), complete in all respects, in accordance with all the conditions of the bidding document.

The project shall be executed on a complete turnkey basis. The Contractor's quoted price shall be deemed to include all equipment, materials, components, accessories, labour, supervision, tools, services, and any other items required for the complete, safe, and proper functioning of the system, whether or not specified in the bidding document but necessary to successfully complete the work.

The Contractor shall be fully responsible for detailed design and engineering of the complete system. This shall include, but not be limited to, the calculation, sizing, selection, and coordination of:

- Outdoor units and indoor units
- Refrigerant piping sizes and routing
- Branch connections and fittings
- Power and control cabling
- Condensate drainage system
- Insulation and protection requirements
- All associated accessories and components

All selections and design calculations shall be carried out using manufacturer-approved selection software and in accordance with manufacturer's recommendations.

The drawings, layouts, quantities, and equipment details provided in the bidding documents are for reference and guidance purposes only. The Contractor shall independently verify all design parameters and shall be fully responsible for the adequacy, completeness, and performance of the system. Approval of drawings or selections by the Engineer/Client shall not relieve the Contractor of this responsibility.

Prior to submission of the bid, the Contractor shall visit the site located at Sector H-8/2, Islamabad and thoroughly familiarize themselves with all site conditions, including access, installation constraints, routing requirements, and all other factors affecting the execution of the works.

No claim whatsoever shall be entertained on account of:

- Lack of site knowledge
- Incorrect estimation of quantities

- Misinterpretation of drawings or specifications
- Any omission or oversight by the Contractor at any stage of the project

The Bidder shall carefully review the bidding document, load sheet, drawings, specifications, and site conditions, and shall identify and include in their bid all items, materials, and works required for the complete and proper functioning of the system.

No additional claims, variations, or extra costs shall be entertained after award of the contract on the basis of omission, oversight, or misunderstanding of the scope. Any item required for successful completion, operation, and performance of the system shall be deemed to be included in the Contractor's quoted price.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

1. General

1.1. The Contractor shall be responsible for the complete design verification, supply, installation, testing, commissioning, and handing over of a Variable Refrigerant Flow (VRF) Air Conditioning System for the specified building, on a turnkey basis.

1.2. The scope of work shall include all equipment, materials, accessories, labour, transportation, supervision, tools, and services required for a fully functional and operational HVAC system, whether or not specifically mentioned in the Contract Documents but necessary for the satisfactory performance of the system.

1.3. The technical specifications, load sheet and drawings attached to the bidding document are for reference purposes, which must be carefully studied by the contractor and must confirm the soundness, precision, and compatibility of the specifications of various items to the procuring agency in their technical proposal. It shall remain the sole responsibility of the contractor to identify any technical changes in the reference specifications at the time of bidding, and to ensure the proposed solution delivers complete and satisfactory VRF system performance, and to ensure that it meets all functional requirements and performance standards set forth in the bid documents.

1.4. The Bidder shall provide a technical proposal with their bid. If the bidder proposes any changes, additions, enhancements, or deviations from the reference technical specifications or BoQ these must be clearly stated in the technical proposal. The bidder shall ensure that any associated cost impact is reflected directly in the quoted BoQ rate of the corresponding/additional item.

1.5. All works must be in accordance to the international standards and as per manufacturer recommendations.

2. Design Verification and Engineering

2.1. The Bidder shall review and verify the thermal load requirements of the building based on architectural drawings, occupancy, orientation, and usage conditions. The Contractor shall be fully responsible for confirming the adequacy of the system design, including selection of outdoor and indoor units, system capacity, diversity factor, and zoning.

2.2. The Contractor shall prepare and submit detailed shop drawings, including but not limited to refrigerant piping layouts, condensate drainage layouts, electrical and control schematics, equipment placement drawings, and installation details. All drawings shall be submitted for approval prior to execution of works.

2.3. Approval of drawings by the Client/Engineer shall not relieve the Contractor of responsibility for the correctness, completeness, and performance of the system.

3. Scope of Supply

3.1. The Contractor shall supply a complete VRF air conditioning system, including all necessary components and accessories required for proper operation.

3.2. The scope shall include VRF outdoor units (inverter-driven, heat & cool modes), indoor units (cassette type), wireless individual controllers, central control system, communication modules, branch selectors, Y-joints, and all associated accessories.

3.3. All equipment shall be latest, energy efficient, new, unused and conforming to the specified technical requirements.

4. Refrigerant Piping System

4.1. The Contractor shall design, supply, install, test, and commission the complete refrigerant piping system, including copper piping, fittings, Y-joints, headers, and accessories as required for a complete VRF system.

4.2. All piping shall be properly sized in accordance with manufacturer guidelines. Piping shall be installed with appropriate supports, clamps, and routing to ensure proper operation and maintainability. Pipe routing shall be planned to ensure that piping is concealed within the false ceiling, thereby maintaining the aesthetics of the building. Any exposed piping shall be minimized and shall be neatly organized and covered with appropriate trays to ensure a clean and professional appearance.

4.3. All refrigerant piping shall be insulated using approved insulation material of specified thickness. The system shall be pressure tested, evacuated to the required vacuum level, and charged with refrigerant as per manufacturer recommendations.

5. Condensate Drainage System

5.1. The Contractor shall provide a complete condensate drainage system for all indoor units. This shall include drain piping, fittings, supports, insulation (where required), condensate pumps and proper routing and connection to the designated collection point.

5.2. All condensate generated from indoor units shall be collected and conveyed to a centralized condensate collection pit/tank located at the position as directed by the Client. No direct discharge of condensate to open drains, floors, or external areas shall be permitted unless specifically approved.

5.3. Drain piping shall be installed with adequate slope to ensure proper gravity flow along with condensate pumps and shall be routed in a manner to avoid stagnation, backflow, or leakage.

5.4. The entire condensate drainage system shall be tested for leakage, proper flow, and discharge into the designated collection pit/tank.

6. Electrical Works

6.1. The Contractor shall carry out the necessary electrical works required for the proper operation of the VRF system. This shall include power cabling from designated power supply points to outdoor units, interconnection wiring between indoor and outdoor units, control wiring, communication cabling, earthing, and protection.

6.2. All electrical works shall comply with relevant standards and shall be executed in coordination with other services.

7. Installation Works

7.1. The Contractor shall install all indoor and outdoor units in accordance with manufacturer instructions and approved drawings. This shall include mounting, alignment, fixing, and provision of all necessary supports, brackets, hangers, and base frames.

7.2. The Contractor shall carry out all minor civil works required for installation, such as core cutting, drilling, grouting, sealing, and making good of surfaces etc without any additional cost.

7.3. Outdoor units shall be installed with proper weather protection, vibration isolation, and accessibility for maintenance.

8. Controls and System Integration

8.1. The Contractor shall supply, install, and commission the complete control system for the VRF installation. This shall include individual room controllers, central controller, and communication networks between all system components.

8.2. The system shall be configured, tested, and commissioned to ensure proper operation and communication between all units.

8.3. Provision shall be made for future integration with a Building Management System (BMS), where applicable.

9. Testing and Commissioning

9.1. The Contractor shall carry out complete testing and commissioning of the VRF system. This shall include pressure testing of piping, vacuuming, refrigerant charging, electrical testing, functional testing, and performance testing.

9.2. The Contractor shall ensure that the system operates in accordance with the specified performance requirements under design conditions.

9.3. All test reports and commissioning reports shall be submitted to the Client for approval.

10. Documentation and Training

10.1. The Successful Contractor shall provide complete documentation, including approved shop drawings, as-built drawings, operation and maintenance manuals, and equipment data sheets.

10.2. The Successful Contractor shall provide a list of all spare parts that may be required for repair and maintenance of the VRF system.

10.3. The Successful Contractor shall also provide comprehensive training to the Client's personnel for operation and maintenance of the system.

11. Warranty and Defects Liability: The Contractor shall provide a comprehensive warranty for the VRF system for a minimum period as specified in the bidding document. During this period, the Contractor shall rectify any defects or failures at no additional cost to the Client.

12. Addition/Reduction of Quantities

12.1. The procuring agency reserves the right to adjust the quantities of work specified in the bidding document. Any addition or reduction in the quantities shall be executed accordingly, with the rates applied as per the original contract or as mutually agreed upon. No claim for additional compensation will be entertained due to variations in quantities unless approved by the procuring agency.

12.2. For any work not specified in the bidding document, execution shall follow site requirements with prior approval from the procuring agency.

13. Site Safety and Risk Mitigation

13.1. The contractor shall be solely responsible for maintaining safe working conditions at the project site during the entire course of execution. Any damage to university property (building, infrastructure, fixtures, utilities, or any other facility) or injury to any person, whosoever, occurring within the project area due to activities related to the contractor's scope of work shall be presumed to be the responsibility of the contractor. The contractor shall bear all costs related to the repair, compensation, or restitution arising from such incidents.

13.2. All work shall be carried out with due diligence, proper planning, and in compliance with applicable safety codes and best engineering practices. The contractor shall coordinate with the university to avoid any conflict or interference with other operations.

14. Aesthetics, Protection, and Restoration of Finishes

14.1. The Contractor shall carry out all works in a manner that preserves the aesthetics and finishes of the building.

14.2. All installations, including piping, wiring, equipment mounting, and associated works, shall be executed in a neat, aligned, and workmanlike manner, with proper coordination with architectural and structural elements. The Contractor shall ensure that:

- No exposed or loosely installed services shall be permitted in finished areas unless specifically approved.
- All conduits, piping, and cables are properly concealed, aligned, and routed in an organized manner.
- All visible installations are aesthetically acceptable and approved by the Engineer/ Client.

14.3. During execution of works, the Contractor shall take all necessary precautions to protect existing finishes, including but not limited to:

- Walls, ceilings, floors, and architectural elements
- Paint, plaster, tiles, false ceiling, and fixtures

14.4. Any damage caused to the building finishes during execution of works shall be repaired, restored, or replaced by the Contractor to match the original condition, to the satisfaction of the Engineer/Client without any additional cost.

14.5. In the event that any installation is found to be aesthetically unacceptable, improperly aligned, exposed, or otherwise unsatisfactory, the Contractor shall, upon instruction of the Engineer/Client, dismantle and reinstall or carry out necessary corrective measures to achieve acceptable aesthetics, at no additional cost to the Client.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

SPECIFICATION FOR VRF CONDENSING UNITS

1. General

The system shall be a Variable Refrigerant Flow (VRF) air conditioning system (heat and cool) using R410A refrigerant or equivalent, comprising air-cooled outdoor units capable of operating in cooling and heating modes.

The outdoor units shall be factory-assembled, fully integrated, and suitable for installation at locations indicated in the drawings or as directed by the Engineer/Client.

2. Design and Performance Requirements

The outdoor units shall be designed for high ambient operation and shall be capable of continuous operation at ambient temperatures up to 52°C or higher, without loss of stability or reliability.

The system shall be capable of precise capacity modulation to match varying load conditions using inverter-driven technology.

The average Energy Efficiency Ratio (EER) in cooling mode shall be minimum 3.8 or higher at standard conditions, or as per internationally recognized certification standards.

3. Compressors

Outdoor units shall be equipped with hermetically sealed inverter-driven scroll compressors, designed for high efficiency and continuous operation.

The compressor system shall include:

- Efficient oil management and return mechanism.
- Protection against high pressure, high temperature, and overcurrent.
- Smooth capacity modulation through inverter control.

Multiple compressors shall be provided to ensure load sharing, redundancy, and stable operation.

Compressors shall preferably be manufactured by the VRF system manufacturer or shall be fully compatible and integrated within the system.

Compressors shall be mounted on vibration isolators and designed to minimize noise and vibration.

4. Heat Exchanger and Corrosion Protection

The outdoor unit shall be equipped with high-efficiency condenser heat exchangers constructed of copper tubes and aluminum fins or equivalent.

The heat exchanger and external components shall be provided with anti-corrosion protection, suitable for outdoor environments, including coated fins, panels, and structural components.

5. Outdoor Unit Fans

Outdoor units shall be equipped with direct-driven axial (propeller-type) fans with inverter-driven motors. The fan system shall:

- Provide adequate airflow for heat rejection under design conditions.
- Operate efficiently under varying loads.
- Maintain low noise and vibration levels.

Fan motors shall include protection against:

- Overheating.
- Overcurrent or driver overload.

The airflow system shall be designed to accommodate installation conditions such as louvers or enclosures, as per manufacturer standards.

6. Control System and Protection

The outdoor unit shall be equipped with a microprocessor-based control system capable of coordinating operation of compressors, fans, and indoor units. The system shall include:

- Self-diagnostic functions.
- Automatic restart after power failure.
- Protection against high/low pressure, overload, and temperature faults.
- Time delay and sequencing controls.

All electronic components, including PCB boards, shall be designed for reliable operation under high ambient conditions, with adequate cooling and protection.

7. System Configuration

The VRF system shall allow connection of multiple indoor units to one or more outdoor units through a common refrigerant piping network.

All connections shall be made using manufacturer-approved branch joints and installed in accordance with manufacturer guidelines.

The system shall operate as a fully integrated solution, capable of maintaining the specified indoor conditions without dependence on external third-party systems for basic operation, while remaining compatible with the central controller.

8. Installation and Location

Outdoor units shall be installed at designated locations shown in drawings or as directed by the Engineer/Client. The Contractor shall verify:

- Adequate clearances.
- Proper airflow and ventilation.

- Accessibility for maintenance.

The Contractor shall ensure that installation does not result in air recirculation, restricted airflow, or reduced performance. The Contractor shall remain fully responsible for system performance.

9. Construction and Accessibility

The outdoor unit shall be of robust construction, fully factory assembled with all internal components pre-installed.

Access panels shall be designed to allow easy maintenance and servicing of compressors, fans, and control components.

All units and removable panels shall be clearly labeled for identification.

10. Safety and Additional Features

The system shall include all necessary safety devices and accessories for safe and reliable operation, including:

- High and low-pressure protection.
- Overcurrent protection.
- Fan failure protection.
- Oil management system.
- Expansion devices and sensors.

The system shall be complete with all components required for proper operation, even if not specified in this document.

All selections shall be based on manufacturer-approved software and submitted for approval.

11. Compliance

All equipment shall comply with:

- Manufacturer's standards.
- International codes and standards.
- Project specifications.

12. Standards

Units shall be tested and certified in accordance with internationally recognized standards such as UL 1995, IEC, Eurovent or equivalent, and shall comply with all applicable safety and performance requirements.

Outdoor units shall be provided with anti-corrosion protection suitable for operation in environments exposed to salt contamination, humidity, and pollutants. The units shall comply with ISO 21207 (Test Method B) or equivalent corrosion testing standards. Additionally, the outdoor unit casing and heat exchanger coils shall be capable of withstanding a minimum of 1000

hours salt spray test (ASTM B117 or equivalent). Valid test certificates shall be submitted for approval.

The VRF system shall be suitable for operation under high ambient temperature conditions of minimum 50°C. The equipment shall be tested and rated for such conditions, and certified performance data at high ambient temperature shall be provided.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

SPECIFICATION FOR VRF INDOOR UNITS

a) Four-way ceiling Cassette

All indoor units shall be factory manufactured, assembled, and tested as per manufacturer standards.

The indoor unit casing shall be constructed from corrosion-resistant metal with suitable internal insulation to prevent condensation and reduce noise.

The unit shall be suitable for ceiling-mounted installation and shall be provided with a factory-finished decorative panel. The panel shall include return air intake and supply air outlets, and shall be of low-profile design suitable for false ceiling applications. Airflow louvers shall be motorized with swing operation and adjustable to ensure uniform air distribution.

The unit may have provision for connection of treated fresh air through a designated opening or duct connection, where required.

The fan shall be of centrifugal type, directly driven, and designed for low noise and smooth operation.

The heat exchanger shall be constructed using copper tubes and aluminum fins, suitable for efficient heat transfer and compatible with VRF system requirements.

Each unit shall be provided with an electronic expansion valve (EEV) or equivalent device for control of refrigerant flow, integrated with the unit control system to maintain desired indoor conditions.

A built-in condensate drain pump shall be provided, capable of lifting condensate to a suitable height as per manufacturer standard.

Condensate drainage piping shall be properly sized, insulated, and connected to the building drainage system as per approved drawings.

The unit shall be provided with washable and replaceable air filters suitable for maintaining indoor air quality.

b) Wireless Remote Controller (Individual)

Each indoor unit shall be provided with a wireless remote controller as the primary control interface. The controller shall be compact, lightweight, and constructed from durable plastic material suitable for indoor use.

The wireless remote controller shall be equipped with an LCD display or equivalent interface and shall provide user-friendly operation with clear indication of system settings and status.

The controller shall operate via infrared or equivalent wireless communication with the indoor unit. The indoor unit shall be provided with a compatible receiver, either built-in or as a standard accessory.

Each wireless remote controller shall, as a minimum, provide the following functions:

- ON/OFF control.
- Temperature set point adjustment.
- Mode selection (Cooling / Heating / Fan / Auto).
- Fan speed control (minimum three speeds or as per manufacturer standard).
- Room temperature display (where applicable).
- Operation status indication.
- Swing control (where applicable).

The controller shall be capable of maintaining desired room conditions in coordination with the indoor unit control system to ensure efficient operation.

Provision of wired controller or centralized control system shall be made where required for group control, monitoring, or advanced functions, as per project requirements.

All control components shall be fully compatible with the VRF system and shall communicate reliably with indoor and outdoor units through the manufacturer's standard communication network.

c) Central Controller

A central controller shall be provided as an integral part of the VRF system. The central controller shall be capable of centralized monitoring and control of all connected indoor and outdoor units from a single location.

The central controller shall serve as the primary supervisory control interface for the system and shall allow authorized personnel to manage operation of individual indoor units, groups of indoor units, and the complete system.

The central controller shall, as a minimum, provide the following functions:

- Centralized ON/OFF control of all indoor units.
- Individual and group control of indoor units.
- Monitoring of operating status of each indoor unit.
- Display of fault alarms and system error codes.
- Weekly and daily scheduling of operation.
- Restriction, locking, or overriding of local controller functions.
- Assignment of unit groups and zones.
- Identification and naming of indoor units/ rooms.
- Password-protected access for authorized users.

- Automatic restart and recovery after power interruption, where supported by the manufacturer.

The central controller shall be capable of restricting operation of selected rooms or zones in accordance with management requirements. It shall be possible to allow or deny operation of specific indoor units from the central controller.

The central controller shall be compatible with all indoor and outdoor units offered under the project and shall communicate through the manufacturer's standard communication network.

The central controller shall be installed at a location designated by the Client and shall be complete with all required hardware, software, communication modules, cabling, accessories, and configuration necessary for full operation.

Local wired controllers for indoor units shall remain functional for basic user operation; however, the central controller shall have overriding authority over local controllers.

Refrigerant Piping Work

The Contractor shall design, supply, install, test, and commission the complete refrigerant piping system for the VRF air conditioning system, including all copper piping, fittings, accessories, insulation, supports, proper routing and protective arrangements required for a complete and functional system.

All piping works shall be carried out in accordance with manufacturer's recommendations, relevant international standards, and good refrigeration practice.

a. Copper Piping

All refrigerant piping shall be seamless copper tubes of ACR (Air Conditioning and Refrigeration) grade, conforming to ASTM B280 or approved equivalent.

Copper fittings shall be compatible with the piping system and suitable for refrigeration applications.

Bends shall be formed using long-radius pre-formed fittings or proper bending tools, ensuring no deformation or restriction of pipe cross-section.

b. Minimum Pipe Thickness

The minimum pipe wall thickness shall comply with the following table or manufacturer's recommendations, whichever is more stringent:

Minimum Pipe Thickness												
Outer Diameter (mm)	6.35	9.52	12.7	15.88	19.05	22.2	25.4	28.58	31.8	34.9	38.1	41.3
Minimum thickness (mm)	0.8	0.8	0.8	0.99	0.99	0.99	0.99	0.99	1.1	1.21	1.35	1.43

c. Refrigerant Pipe Insulation

All refrigerant piping shall be insulated using closed-cell elastomeric foam insulation (Class 0 or equivalent fire resistant) suitable for HVAC applications.

Minimum insulation thickness shall be as per the table below or manufacturer's recommendations, whichever is more stringent.

All insulation joints shall be properly sealed with adhesive/tape to ensure a continuous vapor barrier. Insulation exposed to sunlight shall be protected with UV-resistant coating, aluminum cladding, or equivalent protective covering.

Minimum closed cell foam Insulation for refrigerant Pipes as below Table or as per manufacturer recommendations.

Pipe Size (mm)	Within AC Space	Non-AC Space	Exposed to Atmosphere
6.35–19.05	13 mm	19 mm	19 mm
22.2–31.75	19 mm	25–32 mm	32 mm
≥38.1	19–25 mm	25–32 mm	32 mm

All insulation shall be properly installed to ensure a continuous vapor barrier.

- All joints shall be sealed using approved adhesive.
- No gaps shall be permitted.
- Fittings, joints, headers, and valves shall be insulated using pre-formed insulation.

Piping exposed to atmospheric conditions shall be additionally protected using UV-resistant aluminum cladding, aluminum tape, or equivalent approved protective covering.

d. Routing and Protection

Refrigerant piping installed externally shall be properly protected and routed in heavy-duty GI trays or supports with provision for inspection and maintenance.

Piping installed on roofs shall be supported at a minimum height of 75 mm (3 inches) or as recommended by the Client above finished surface level.

e. Pipe Supports

All refrigerant piping shall be adequately supported throughout its length in accordance with good engineering practice.

- Supports shall not be located directly on joints or fittings.
- Horizontal supports shall be placed over insulation to allow thermal expansion and contraction.
- Maximum support spacing shall be or as instructed by the Client:

- **Horizontal piping**: 1500 mm
- **Vertical piping**: 2500 mm

f. Installation and Layout

The complete piping layout, sizing, routing, and joint placement shall be designed and executed strictly in accordance with the VRF system manufacturer's guidelines.

All shop drawings shall be submitted and approved prior to execution of works. All refrigerant piping shall be:

- Pressure tested
- Leak tested
- Evacuated to required vacuum level

All procedures shall comply with manufacturer's recommendations.

g. Refrigerant Charging and Records

All installed piping lengths shall be accurately measured and recorded during commissioning.

The Contractor shall calculate and charge the additional refrigerant quantity required based on actual piping length.

The following shall be recorded and submitted:

- Total piping length
- Additional refrigerant quantity
- Final system charge

h. Installation of Refrigerant Piping

All welding and brazing of refrigerant piping shall be carried out using oxygen-free nitrogen (OFN) purging to prevent oxidation within the pipes.

A continuous flow of nitrogen shall be maintained through the piping during all brazing operations. The recommended minimum nitrogen pressure shall be 0.02 MPa. The Contractor shall ensure that no oxidation scale is formed on the internal surfaces of the piping.

i. Pipe Cleanliness and Handling

All refrigerant piping shall be kept clean, dry, and free from moisture, dust, and contaminants at all times.

- Pipes shall be stored in dry conditions with factory-sealed end caps intact.
- Any pipe found without end caps or exposed to contamination shall be rejected.
- After cutting pipes, all open ends shall be immediately sealed.

- During installation, any open ends shall be securely sealed whenever work is interrupted.

j. Branch Connections

Branching of refrigerant piping shall be carried out using manufacturer-approved Y-joints, T-joints, or header distributors specifically designed for VRF systems. No alternative fittings or improvised connections shall be permitted. The selection, positioning, and installation of all branch joints shall be strictly in accordance with the manufacturer's guidelines and installation standards.

k. Compliance with Manufacturer's Requirements

All equipment and installation works shall be carried out strictly in accordance with the manufacturer's technical specifications, installation manuals, and design standards.

Refrigerant piping sizes, branch fittings, routing, and communication wiring shall be selected and installed as per the manufacturer's recommendations.

Pipe sizes indicated in drawings, if any, shall be considered tentative only, and the Contractor shall be responsible for final sizing based on detailed design and manufacturer's selection.

l. System Design and Selection

The Contractor shall carry out a complete system selection using manufacturer-approved software, taking into account:

- Actual piping lengths
- Number and type of fittings
- Vertical height differences
- Indoor unit distribution
- System diversity and load conditions

The Contractor shall submit detailed selection reports, including system schematics and capacity calculations, for approval prior to procurement and installation.

m. Approval Requirement

Prior to finalization of equipment and commencement of installation, the Contractor shall submit all design calculations, piping layouts, and equipment selections for review and approval by the Engineer/Client.

Approval shall not relieve the Contractor of responsibility for the correctness and performance of the system.

Electrical Wiring and Controls Cabling

All electrical works shall be carried out strictly in accordance with the VRF system manufacturer's recommendations, relevant standards, and approved shop drawings. Power supply to all outdoor and indoor units shall be provided as per system requirements and manufacturer's recommendations.

All cables, accessories, and installation practices shall be suitable for the intended application and environment.

a. Control and Communication Wiring

All communication between indoor and outdoor units shall be carried out through low-voltage communication cables as per manufacturer's protocol. Control/communication cables shall:

- Be shielded type cables
- Be 2-core or 3-core, as required
- Have conductor size 1.5 mm^2, or as recommended by the manufacturer

All communication wiring shall be fully compatible with the VRF system and shall ensure reliable data transmission.

b. Cable Installation Requirements

- All control and communication cables shall be installed in PVC conduits or approved cable containment systems.
- Cables shall be properly supported and routed to avoid mechanical damage.

Power and control cables shall be installed separately to prevent electromagnetic interference.

- No power and communication cables shall be run in the same conduit or tray unless specifically permitted by the manufacturer.
- Adequate separation shall be maintained between power and control cables at all times.

Control cables shall not be tightly bundled or compressed, and proper spacing shall be maintained to ensure signal integrity.

c. Compliance: All wiring works shall comply with:

- Manufacturer's installation guidelines
- Applicable electrical standards
- Approved shop drawings

Installation, Pressure Testing, Evacuation, Commissioning and Testing

All supply, installation, testing, and commissioning works shall be carried out by the manufacturer's authorized and qualified specialist contractor/supplier.

All works shall be executed strictly in accordance with the manufacturer's installation manuals, technical guidelines, and approved shop drawings.

a. Pressure Testing

Upon completion of refrigerant piping installation and prior to insulation, the entire piping system shall be subjected to a pressure test using dry nitrogen.

- Test pressure shall be 550 psi (approximately 38 bar) or as recommended by the manufacturer, whichever is higher.
- The pressure shall be maintained for a minimum period of 24 hours.
- The system shall be thoroughly checked for leaks using soap solution, electronic leak detector, or other approved methods.
- No pressure drop shall be observed during the test period, after accounting for ambient temperature variations.

Any leakage detected during testing shall be rectified, and the test shall be repeated until satisfactory results are achieved.

Use of oxygen or compressed air for pressure testing shall not be permitted.

b. Evacuation (Vacuuming and Dehydration)

After successful pressure testing, the system shall be evacuated using a suitable high-quality vacuum pump.

- The system shall be evacuated to a minimum vacuum level of 500 microns or lower.
- Evacuation shall be carried out using a calibrated micron gauge connected at an appropriate location to measure true system vacuum.
- Upon achieving the required vacuum level, the system shall be isolated from the vacuum pump, and the vacuum shall be observed for a minimum period of 30 minutes.
- The vacuum level shall not rise above 1000 microns during the holding period, confirming the system is free from moisture and leaks.

If required, evacuation shall be repeated until the desired vacuum stability is achieved.

For large or long piping systems, multiple evacuation cycles (triple evacuation with dry nitrogen purging) may be carried out to ensure complete removal of moisture and non-condensable gases.

All evacuation readings shall be properly recorded and submitted for approval.

c. **Refrigerant Charging and Commissioning**

Final refrigerant charging and system commissioning shall be carried out by:

- A manufacturer's representative, or

- A factory-trained and authorized engineer

The Contractor shall:

- Measure and record total piping length
- Calculate additional refrigerant charge
- Charge refrigerant strictly as per manufacturer's guidelines

Complete commissioning data shall be recorded and submitted, including:

- Refrigerant charge quantity
- Operating pressures
- Temperatures
- System performance parameters

d. **Commissioning Documentation**

The Contractor shall submit detailed commissioning reports, including:

- Pressure test records.
- Vacuum test records.
- Refrigerant charging details.
- System performance data.

All documents shall be submitted for approval prior to handover.

e. **Compliance and Certification**

All installation, testing, and commissioning works shall comply with:

- Manufacturer's recommendations.
- Approved specifications.
- Relevant standards.

If required by the Engineer/Client, a manufacturer's representative shall visit the site and issue a certificate confirming that the installation and commissioning are in accordance with manufacturer requirements.

Warranty

All equipment and associated components shall be provided with two (1) year comprehensive warranty from the date of handing over of VRF System to the University.

After-Sales Support

The Contractor/Supplier shall be fully responsible for:

- After-sales service
- Troubleshooting

- Maintenance
- Availability of Spare parts

All such services shall be included in the contract scope and shall be valid during the warranty period without any additional cost to the Client.

Performance Testing

Upon completion of installation and commissioning, the Contractor shall carry out performance testing of the VRF system in the presence of the Engineer/Client to verify compliance with specified requirements.

The performance testing shall include, but not be limited to, the following:

- Verification of operation of all indoor and outdoor units.
- Measurement of room temperature achieved in conditioned spaces.
- Verification of air distribution and airflow from indoor units.
- Measurement of system operating parameters including suction/discharge pressures, temperatures, and electrical consumption.
- Verification of control system functionality, including local and central controllers.
- Verification of system stability under continuous operation.

The system shall be operated under design or near-design load conditions, and the Contractor shall demonstrate that the system is capable of maintaining the required indoor comfort conditions.

Acceptance Criteria

The system shall be deemed acceptable only if it is capable of maintaining the specified indoor temperature conditions under normal operating conditions without abnormal noise, vibration, or system faults.

In the event that the system fails to meet the specified performance requirements, the Contractor shall carry out all necessary modifications, adjustments, or replacements at no additional cost to the Client until satisfactory performance is achieved.

The Contractor shall submit detailed performance test reports, including all measured parameters, observations, and test conditions, for approval prior to final handover.

Indoor Design Conditions

The VRF air conditioning system shall be designed to maintain the following indoor environmental conditions under peak summer design conditions:

Indoor Conditions:

- Dry Bulb Temperature: **24 ± 1°C**
- Relative Humidity: **50% ± 10%**

Outdoor Design Conditions:

- Ambient Temperature: As per site location

The system shall be capable of maintaining the above indoor conditions under the specified outdoor design conditions with all equipment operating under normal conditions.

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Schedule of Requirements

The delivery schedule is expressed as following, having either exact dates of delivers and/or indicative mentioning where explained. The delivery period shall start from the date of signing of Contract Agreement:

Item No.	Name of Item/ Description	Qty	Completion Time		
			Delivery & Installation of Local Components including Pipes, Power Cables, etc.	**Delivery of Import Component**	**Completion of Project**
1.	Design, Supply, Installation, Testing & Commissioning of Variable Refrigerant Flow (VRF) Air Conditioning System (***Turnkey Solution***)	As per BOQs	**45 Days** (from the date of signing of contract agreement)	**90 Days** (from the date of signing of contract agreement)	**120 Days** (from the date of delivery of equipment/ items)

Important Note:

1. The contractor shall complete the supply and installation of all local components, including pipes, power cables, ducts, and associated works, within 45 days from the date of signing of the Contract Agreement to facilitate shifting of the office to the designated premises and avoid unnecessary disruption to official operations.

2. Following the office shift, the second phase shall primarily involve the installation and hanging of indoor and outdoor units, along with necessary connections, testing, and commissioning. The contractor shall execute these activities in a manner that minimizes disruption to routine office work and ensures completion of the entire project within the stipulated timeframe.

3. In case the contractor fails to complete the any phase within the stipulated period from the date of signing of the Contract Agreement, liquidated damages/penalty shall be imposed on the total contract price of the project, at the rate specified in the Contract Agreement, in accordance with the applicable terms and conditions.

The delivery locations address(es) are as follows:

5th Floor, NTS Building, H 8/1 Islamabad

Note: The successful bidder shall be coordinating with the Procurement Department of ISMO before transporting the supplies, inadvertently.

OTHER TERMS & CONDITIONS FOR SUPPLY AND INSTALLATION OF VARIABLE REFRIGERANT FLOW (VRF) AIR CONDITIONING SYSTEM

1. Mandatory Site Visit

It shall be mandatory for all prospective bidders to visit and inspect the proposed installation site before submission of their bids. The bidder shall assess the site conditions, existing electrical infrastructure, indoor and outdoor unit locations, refrigerant piping routes, condensate drainage arrangements, cable routes, available space, ventilation requirements, structural provisions, accessibility for installation and maintenance, and any other factors relevant to the successful execution of the work.

2. Site Visit Certificate

The bidder shall obtain a Site Visit Certificate from ISMO as evidence of having inspected the site. The certificate shall be submitted along with the bid. A bidder who fails to undertake the mandatory site visit shall be considered non-responsive/ineligible for further evaluation.

3. Complete Scope of Supply and Installation

The quoted price shall be complete and inclusive of all costs required for the successful supply, installation, testing, commissioning, and operationalization of the complete Variable Refrigerant Flow (VRF) air conditioning system. This shall include, but not be limited to, indoor units, outdoor condensing units, refrigerant piping, thermal insulation, refrigerant branch joints/headers, refrigerant distribution components, condensate drain piping, control wiring, power cabling, cable trays/conduits, electrical isolators, protective devices, control systems, centralized or individual controllers, communication wiring, mounting brackets, supports, vibration isolation arrangements, refrigerant, refrigerant piping accessories, drainage accessories, and all other required materials, equipment, accessories, and works necessary for a complete and functional installation.

The scope shall also include all necessary interconnections, pipe fittings, joints, insulation, supports, sleeves, sealing of penetrations, minor associated civil/electrical works, and other ancillary works required for the proper installation and operation of the system, in accordance with the bidding documents and approved manufacturer's recommendations.

4. Responsibility for Installation

The bidder/contractor shall be fully responsible for transportation, unloading, shifting, positioning, mounting, installation, interconnection, refrigerant piping, pressure testing, leak testing, evacuation, refrigerant charging, condensate drainage, electrical wiring, termination, control wiring, addressing, configuration, testing, commissioning, and successful integration of all indoor and outdoor units and associated control systems.

The contractor shall ensure that the complete VRF system is installed in accordance with the approved technical specifications, manufacturer's installation guidelines, applicable codes and standards, and site requirements. The contractor shall also ensure proper coordination of indoor and outdoor units, refrigerant pipe lengths, elevation differences, drainage slopes, electrical connections, and communication networks.

5. Completeness of Bid Price

The bidder shall quote a lump-sum/comprehensive price for the complete supply and installation of the VRF air conditioning system in accordance with the technical specifications and Bill of Quantities (BoQ). Any item, material, accessory, component, service, or work necessary for the proper functioning, installation, testing, commissioning, and handover of the complete system, whether specifically mentioned in the BoQ or not, shall be deemed to have been included in the quoted price.

The bidder shall verify the adequacy of the proposed equipment capacities, number of indoor and outdoor units, refrigerant piping requirements, control arrangements, electrical provisions, and associated accessories before submitting the bid. No additional payment shall be admissible for items or works required to achieve a complete and operational system in accordance with the bidding documents.

6. No Additional Claim Due to Site Conditions

No additional payment shall be admissible on account of any site condition, installation difficulty, refrigerant piping length, cable length, routing requirement, access restriction, equipment positioning, mounting arrangement, condensate drainage requirement, or other factor that could reasonably have been identified during the mandatory site visit.

The bidder shall be deemed to have assessed the site and included all reasonably foreseeable requirements and associated costs in the quoted price. Any proposed deviation from the specified scope or any additional requirement identified after award of the contract shall be dealt with strictly in accordance with the applicable provisions of the contract and shall not automatically entitle the contractor to additional payment.

7. Compliance with Specifications

The VRF air conditioning system and all associated equipment and accessories shall strictly comply with the technical specifications, cooling/heating capacity requirements, energy efficiency requirements, applicable standards, manufacturer's recommendations, and BoQ included in the bidding documents.

The bidder shall ensure that the proposed system is compatible with the specified indoor and outdoor units and that the combined system capacity, diversity ratio, refrigerant piping configuration, permissible pipe lengths,

elevation differences, operating conditions, and control arrangements are within the limits approved by the manufacturer.

All equipment shall be new, unused, genuine, and sourced from the original manufacturer or its authorized supply channel. The bidder shall provide a complete and operational air conditioning system rather than merely supplying individual units or equipment.

8. Testing and Commissioning

The contractor shall carry out all necessary testing, commissioning, and performance verification of the complete VRF system. This shall include, but not be limited to:

Inspection of equipment installation, mounting, supports, and vibration isolation arrangements.

Pressure testing and leak testing of refrigerant piping in accordance with the manufacturer's prescribed procedures.

Evacuation and dehydration of refrigerant piping and charging of refrigerant, wherever required, in accordance with the manufacturer's instructions.

Verification of refrigerant piping, insulation, joints, branch connections, and condensate drainage arrangements.

Testing of electrical supply, earthing, protective devices, power wiring, control wiring, and communication connections.

Configuration and testing of indoor and outdoor units, individual controllers, centralized controllers, and associated control functions.

Verification of cooling and heating operation, where applicable, airflow, temperature performance, operating parameters, alarms, and system fault indications.

Functional testing of the complete system under representative operating conditions and verification of satisfactory performance against the specified requirements.

The contractor shall provide all necessary tools, instruments, skilled personnel, consumables, and technical support required for testing and commissioning. The complete system shall be demonstrated to the satisfaction of ISMO/authorized representatives.

9. Handover and Final Acceptance

The VRF air conditioning installation shall be considered complete only after successful testing and commissioning of the entire system, including all indoor and outdoor units, refrigerant piping, condensate drainage, electrical and

control wiring, controllers, communication systems, and all associated equipment and accessories.

The contractor shall hand over the complete system to ISMO in a fully operational and satisfactory condition, along with the following documents, as applicable:

a) Operation and maintenance manuals.
b) Manufacturer's technical documentation and equipment schedules.
c) Testing, pressure testing, leak testing, and commissioning reports.
d) Equipment warranty certificates and installation warranty documentation.
e) As-built drawings showing indoor and outdoor unit locations, refrigerant piping routes, pipe sizes, branch connections, drainage routes, and electrical/control wiring.
f) Refrigerant piping and refrigerant charging records, where applicable.
g) Controller configuration details, operating instructions, and fault-code information.
h) Equipment serial numbers and other relevant identification records.
i) Any other documentation required under the bidding documents.
j) The contractor shall provide necessary training to ISMO's designated personnel regarding operation, routine maintenance, controller functions, and basic troubleshooting of the installed system.
k) Final acceptance by ISMO shall be subject to successful installation, testing, commissioning, and demonstration of satisfactory operation of the complete VRF system in accordance with the Technical Compliance requirements of the bidding documents. Final acceptance shall be issued only after ISMO is satisfied that the complete system is fully functional and compliant with the specified requirements and that all required documentation has been submitted.

10. Warranty and Defects

The contractor shall provide warranty coverage for the supplied VRF equipment, including indoor units, outdoor units, compressors, controllers, refrigerant piping accessories, and other supplied components, as well as the installation works, in accordance with the warranty requirements specified in the bidding documents.

The contractor shall clearly specify the applicable warranty periods for equipment and installation works in its technical proposal and shall provide the relevant manufacturer's warranty documentation.

Any defect attributable to faulty equipment, materials, workmanship, installation, refrigerant leakage caused by defective installation, improper commissioning, or failure to comply with the approved specifications during the

applicable warranty period shall be rectified by the contractor at no additional cost to ISMO.

The contractor shall respond to warranty complaints within the time stipulated in the contract, carry out necessary repairs or replacement of defective components, and restore the system to satisfactory operating condition without additional cost to ISMO, subject to the terms of the applicable warranty and contract.

Note:

The quantities mentioned in the Bill of Quantities (BOQ) are estimated and provided for reference purposes only. The Bidder/Vendor shall be responsible for visiting and inspecting the site, verifying the actual site conditions, assessing the complete scope of work, and determining the actual quantities and requirements before submitting its bid.

The Bidder shall quote a **comprehensive lump-sum price** for the complete VRF system supply, installation, testing, commissioning, and all associated works in accordance with the tender specifications and requirements. Any variation between the estimated quantities mentioned in the BOQ and the actual quantities or requirements identified at the site shall not entitle the successful Bidder to claim any additional payment, price adjustment, or extension of time on this basis alone. The successful Bidder shall be fully responsible for completing the entire scope of work, including any additional quantities necessary to meet the specified requirements and achieve a fully functional and operational system, within the quoted lump-sum amount.