



TENDER NO.: GAIL/NCR/C&P/P09/2K20-21/8000017462

BID DOCUMENT FOR

**DESIGN, SUPPLY, INSTALLATION, TESTING &  
COMMISSIONING OF 25 KWP (11 NO.), GRID TIED  
AND RPR, ROOF TOP SOLAR PLANT & 3 KWP (1  
NO.) UNDER GAIL NCR JURISDICTION**

UNDER “DOMESTIC COMPETITIVE BIDDING”

Prepared and Issued by

GAIL (India) Limited  
B 35/36 Infohub Building  
Sector-1, Noida-201301

Ph. No. 0120-2515353/54/55 Extn. 2117

(THIS IS AN E-TENDER)



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**SECTION-I**

**INVITATION FOR BID (IFB)**



**SECTION-I**  
**"INVITATION FOR BID (IFB)"**

Ref No: GAIL/NCR/C&amp;P/P09/2K20-21

Date: 13.10.2020

To,

**PROSPECTIVE BIDDERS**

**SUB: DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 25 KWP (11 NO.), GRID TIED AND RPR, ROOF TOP SOLAR PLANT & 3 KWP (1 NO.) UNDER GAIL NCR JURISDICTION.**

Dear Sir/Madam,

1.0 GAIL (India) Limited, the largest state-owned natural gas processing and distribution company having Registered Office at 'GAIL Bhawan', 16, Bhikaiji Cama Place, R.K. Puram, New Delhi, India (CIN L40200DL1984GOI018976) and a Maharatna, invites bids from bidders for the subject supply/job, in complete accordance with the following details and enclosed Tender Documents.

2.0 The brief details of the tender are as under:

(A)	SCOPE OF SUPPLY /PROCUREMENT	<b>DESIGN, SUPPLY, INSTALLATION, TESTING &amp; COMMISSIONING OF 25 KWP (11 NO.), GRID TIED AND RPR, ROOF TOP SOLAR PLANT &amp; 3 KWP (1 NO.) UNDER GAIL NCR JURISDICTION</b>	
(B)	TENDER NO. & DATE	<b>GAIL/NCR/C&amp;P/P09/2K20-21 DATED 13.10.2020 E-TENDER NO: 8000017462</b>	
(C)	TYPE OF BIDDING SYSTEM	SINGLE BID SYSTEM	<b>X</b>
		TWO BID SYSTEM	✓
(D)	CONTRACTUAL DELIVERY DATE	<b>Refer SCC Cl. No. 5.0</b>	
(E)	BID SECURITY / EARNEST MONEY DEPOSIT (EMD)	APPLICABLE	✓
		NOT APPLICABLE	<b>X</b>
		Amount: <b>Rs. 2.9 Lac</b> (Refer clause no.16 of ITB & BDS for details)	



(F)	AVAILABILITY OF TENDER DOCUMENT ON WEBSITE(S)	From <b>13.10.2020 ( 15:00 Hrs, IST)</b> to <b>03.11.2020 (13:00 Hrs, IST)</b> on following websites: (i) GAIL's Tender Website – <a href="http://www.gailtenders.in">www.gailtenders.in</a> (ii) Govt. CPP Portal - <a href="https://eprocure.gov.in">https://eprocure.gov.in</a> (iii) GAIL's e-Procurement Portal (e-Portal)- <a href="https://etender.gail.co.in">https://etender.gail.co.in</a> [ <i>in case of e-Tendering</i> ] (iv) Government E-Market (GeM) Portal
(G)	DATE, TIME & VENUE OF PRE-BID MEETING	Date: <b>20.10.2020</b> Time: <b>11:00 Hrs.</b> Venue: <b>GAIL (India) Limited, B 35/36 Infohub Building Sector-1, Noida-201301</b>
(H)	BID DUE DATE AND TIME	Date: <b>03.11.2020</b> Time: <b>13:00 Hrs.</b>
(I)	DATE, & TIME OF UN-PRICED BID OPENING	Date: <b>03.11.2020</b> Time: <b>15:00 Hrs.</b>
(J)	CONTACT DETAILS OF TENDER DEALING OFFICER	Name : <b>Jaspreet Singh Sethi</b> Designation: <b>Sr. Manager (C&amp;P)</b> Phone No. & Extn : <b>0120-2515353/54/55 Extn. 2117</b> e-Mail : <a href="mailto:jaspreet.singh@gail.co.in">jaspreet.singh@gail.co.in</a>

In case the days specified above happens to be a holiday in GAIL, the next working day shall be implied.

- 3.0 Bids must be submitted strictly in accordance with Clause No. 11 of ITB. The IFB is an integral and inseparable part of the Tender Document.
- 4.0 The following documents in addition to uploading in the bid on GAIL's e-Portal shall also be submitted in Original (in physical form) within 7 (seven) days from the Bid Due Date provided the scanned copies of the same have been uploaded in e-Portal by the bidder along with e-bid within the Bid Due Date & Time, to the address mentioned in Bid Data Sheet (BDS):-
- i) EMD/Bid Security
  - ii) Power of Attorney
  - iii) Integrity Pact
- 5.0 Bidder(s) are advised to submit their bid strictly as per terms and conditions of the Tender Documents and not to stipulate any deviations/exceptions.
- 6.0 Any bidder, who meets the Bid Evaluation Criteria (BEC) and wishes to quote against this Tender Document, may download the complete Tender Document alongwith its amendment(s) if any from websites as mentioned at 2.0 (F) of IFB and submit their Bid complete in all respect as per terms & conditions of Tender Document on or before the Bid Due Date & Time.



7.0 Bid must be submitted only on <https://etender.gail.co.in>. Bid(s) received from bidders to whom tender/information regarding this Tender Document has been issued as well as offers received from the bidder(s) by downloading Tender Document from above mentioned website(s) shall be taken into consideration for evaluation & award provided that the Bid is found responsive subject to provisions contained in Clause No. 2 of ITB.

The Tender Document calls for offers on single point “Sole Bidder” responsibility basis (except where JV/Consortium bid is allowed pursuant to clause no. 3.0 of ITB) and in total compliance of Scope of Supply /Specification(s) as specified in Tender Document.

8.0 Any revision, clarification, addendum, corrigendum, time extension, etc. to the this Tender Document will be hosted on the above mentioned website(s) only. Bidders are requested to visit the website regularly to keep themselves updated.

9.0 All the bidders including those who are not willing to submit their bid, are required to submit F-6 (Acknowledgement cum Consent letter) duly filled within 7 days from the date of receipt of tender information.

#### 10.0 Procurement through GeM in future by GAIL

Government of India has introduced an online procurement portal – ‘Government e-Marketplace (GeM)’ with the aim to transform the way in which public procurement of goods and services is done by the Government Ministries/Departments, PSUs, autonomous bodies etc. GeM aims to enhance transparency, efficiency and speed in public procurement.

GAIL (India) Ltd. is already registered on GeM and have started procurement through GeM.

You are, therefore, requested to kindly register your organization and your products on GeM at the earliest.

The detailed process of registration is available on GeM Portal (i.e. <https://gem.gov.in/>).

11.0 SAP generated Request for Quotation (RFQ), if any shall also form an integral part of the Tender Document.

12.0 GAIL reserves the right to reject any or all the bids received at its discretion without assigning any reason whatsoever.

This is not an Order.

For & on behalf of  
GAIL (India) Limited

(Authorized Signatory)

Name : **Jaspreet Singh Sethi**

Designation: **Sr. Manager (C&P)**

Phone No. & Extn : **0120-2515353/54/55 Extn. 2117**

e-Mail : [jaspreet.singh@gail.co.in](mailto:jaspreet.singh@gail.co.in)



**DO NOT OPEN - THIS IS A QUOTATION**

***Bid Document No.*** : .....

***Description*** : .....

***Bid Due Date& Time*** : .....

***From:***

***To:***

..... .....	..... .....
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***(To be pasted on the envelope containing Physical documents)***

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**SECTION-II**

**BID EVALUATION**

**CRITERIA & EVALUATION**

**METHODOLOGY**



**SECTION-II**

**BID EVALUATION CRITERIA (BEC) & EVALUATION METHODOLOGY**

**A. TECHNICAL CRITERIA:**

- i. The bidder must have executed **at least one Order**, in the preceding 07 years as on due date of bid submission, of similar nature i.e. **Supply, Installation, Testing & Commissioning of Solar Plant of a Minimum Total Capacity 140 KWp**.
- ii. The bidder must have executed **at least one Order**, in the preceding 07 years as on due date of bid submission, of similar nature i.e. **Operation & Maintenance of Solar Project of a Minimum Total Capacity 140 KWp for at least one year**.

Note for Technical Criteria of BEC:

- a) A job executed by a bidder for its own Plant/Projects cannot be considered as experience for the purpose of meeting BEC of Tender. However, jobs executed for its Subsidiary / Fellow Subsidiary / Holding Company will be considered as experience for the purpose of meeting BEC, subject to submission of Tax-Paid Invoice(s), duly certified by the Statutory Auditor of the bidder or by a practicing Chartered Accountant, towards payment of Statutory Tax in support of the job executed for its Subsidiary / Fellow Subsidiary / Holding Company. Such bidders shall submit these documents in addition to the documents specified in Tender Document to qualify above BEC.
- b) Experience acquired by the bidder as a sub-contractor may be accepted against submission of certificate from End User.
- c) Only documents (Purchase Order, Work Order, Completion Certificate, Execution Certificate etc.) which have been referred/ specified in the bid shall be considered in reply to Techno-Commercially Query(s), if any.

**B. FINANCIAL CRITERIA:**

1. The bidder must have **Minimum Turnover of Rs. 71.00 Lac** in any one of the preceding three financial years.
2. **Net worth** of the bidder should be **positive** as per the last audited financial statement.
3. The bidder must have **Minimum Working Capital of at least Rs. 14.00 Lac** as per last audited annual financial statement.

Note for Financial Criterion of BEC:

- (i) If the bidder's working capital is negative or inadequate, the bidder shall submit a letter from their bank having net worth not less than Rs.100 crores (or equivalent in USD), confirming the availability of line of credit for working capital amount mentioned herein above.

The line of credit letter from bank to be submitted strictly as per format at F-9.

- (ii) Annual Turnover: In case the tenders having the due date for submission of bid up to 31<sup>st</sup> December of the relevant financial year, and audited financial results of the immediate 3 preceding financial





years are not available, the bidder has an option to submit the audited financial results of the 3 years immediately prior to that. Wherever the closing date of the bid is after 31<sup>st</sup> December of the relevant financial year, bidder has to compulsorily submit the audited financial results for the immediate 3 preceding- financial years. However, in case bidder is meeting the Annual Turnover criteria of BEC based on Audited Financial Statement of any one of the preceding 3 financial years, the same shall suffice.

- (iii) Net Worth/Working Capital: In case the tenders having the due date for submission of bid up to 31<sup>st</sup> December of the relevant financial year, and audited financial results of the immediate preceding financial year is not available, in such case the audited financial results of the year immediately prior to that year will be considered as last financial year for Net worth/ Working Capital calculation. Wherever the closing date of the bid is after 31<sup>st</sup> December of the relevant financial year, Bidder has to compulsorily submit the audited financial results for the immediate preceding financial year.

**C. RELAXATION OF PRIOR TURNOVER AND PRIOR EXPERIENCE FOR STARTUP (AS DEFINED IN GAZETTE NOTIFICATION NO. D.L-33004/99 DATED 18.02.2016 AND 23.05.2017 OF MINISTRY OF COMMERCE AND INDUSTRY), AS AMENDMED TIME TO TIME: Relaxation of prior experience and turnover for start-ups is applicable to this tender.**

For availing the relaxation, bidder is required to submit requisite certificate towards Start-up enterprise registration issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and the certificate should be certified by the Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's Company/firm) and notary public with legible stamp.

The relaxation of prior experience and prior turnover to Startups [whether Micro & Small Enterprises (MSEs) or otherwise] is to be given to the specific goods/ job domains wherein they are registered for.

Since certificate of DPIIT towards recognition do not specify the goods/ job domain, startups are required to submit the documents for the same including the application submitted to DPIIT.

The certificate shall only be valid for the entity:

- (i) Upto ten years from the date of its incorporation/ registration and
- (ii) If its turnover for any financial years since incorporation/ registration has not exceed Rs. 100 Crores.

Further, above document should be certified by the **Chartered Accountant** (not being an employee or a Director or not having any interest in the bidder's company/firm) and **Notary Public** with legible stamp.

In case of startup where the Financial statement of Startup (s) is not available and **Net Worth** could not be established with other documents like Memorandum of Association, etc., the certificate issued by Chartered Accountant/ Certified Public Accountant (CPA) may be considered.

Further, Line of Credit can be submitted in case of inadequate/ negative **Working Capital**.



**D. DOCUMENTS TO BE SUBMITTED FOR COMPLIANCE TO BEC:**

I. Technical Criteria of BEC:

For BEC Cl. No. A.i

- a) Copy of relevant **Work Order/ Contract/ Service Order**, clearly mentioning Nature of Work/Service, Various Components/Items, Scope of Work, Period, Value etc.
- b) Copy of **Completion Certificate** issued by end user / owner (or their consultant who has been duly authorized by them to issue such certificate), clearly mentioning reference to relevant work order, full address of client & details of officer issuing such certificate, actual value of executed work, actual date of completion, confirmation of successful execution of job etc.

For BEC Cl. No. A.ii

- a) Copy of relevant **Work Order/ Contract/ Service Order**, clearly mentioning Nature of Work/Service, Various Components/Items, Scope of Work, Period, Value etc.
- b) Copy of **Completion/Execution/Client certificate** issued by end user / owner (or their consultant who has been duly authorized by them to issue such certificate), clearly mentioning reference to relevant work order, full address of client & details of officer issuing such certificate, actual value of executed work, actual date of completion, confirmation of successful execution of job etc.
- c) In case the bidder is **executing a rate contract which is still running and the contract period executed till one day prior to due date** of bid submission is equal to or more than the minimum prescribed period mentioned in the BEC, such experience will also be taken in to consideration provided that the bidder shall submit satisfactory **Work Execution Certificate** (clearly specifying the executed period) to this effect issued by the end user/ owner/ authorized consultant.

II. Financial Criteria of BEC:

In support of the claim of meeting the financial criterion, the bidder must furnish:

- a) Bidder shall submit “**Details of Financial Capability of Bidder**” in prescribed **Format F-10 duly signed and stamped by a Chartered Accountant**.
- b) Further, **copy of Audited Annual Financial Statements** (including Balance Sheet, Profit & Loss Account, Auditor Reports etc.) submitted in bid shall be **duly certified/ attested by Notary Public with legible stamp**.

**E. AUTHENTICATION OF DOCUMENTS TO BE SUBMITTED IN SUPPORT OF BEC:**

i. **Technical Criteria of BEC:**

All documents in support of Technical Criteria of BEC to be furnished by the Bidder shall necessarily be **duly certified/ attested by Chartered Engineer and Notary Public with legible stamp**.



ii. **Financial Criteria of BEC:**

Bidder shall submit “Details of financial capability of Bidder” in prescribed **Format (F-10) duly signed and stamped by a chartered accountant.**

Further, copy of audited annual financial statements submitted in bid shall be duly **certified/ attested by Notary Public with legible stamp.**

**NOTE:** Practicing Chartered Accountants shall generate **Unique Document Identification No. (UDIN)** for all certificated issued by them as per provisions of the tender document.

However, UDIN may not be required for documents being attested Chartered Accountants in terms of provisions of tender document.

**F. Eligibility criteria in case bid is submitted on the basis of technical experience of FOREIGN BASED ANOTHER COMPANY (SUPPORTING COMPANY) which holds more than fifty percent of the paid up share capital of the bidder company or vice versa:**

Offers of those bidders (not under consortium arrangement) who themselves do not meet the technical experience criteria as stipulated in the BEC and are quoting based on the experience of Foreign based another company (Supporting Company) can also be considered. In such case the supporting company should hold more than fifty percent of the paid up share capital of the bidding company or vice versa.

However, the supporting company should on its own meet the technical experience as stipulated in the BEC and should not rely on any other company or through any other arrangement like Technical collaboration agreement.

In that case as the bidding company is dependent upon the technical experience of another company with a view to ensure commitment and involvement of the companies involved for successful execution of the contract, the participating bidder should enclose the following Agreements/ Guarantees/ Undertakings along with the techno-commercial bid:

- (i) An Agreement (*as per format enclosed at Appendix- A1*) between the bidder and the supporting company.
- (ii) Guarantee (*as per format enclosed at Appendix- A2*) by the supporting company to GAIL for fulfilling the obligation under the Agreement.

Undertaking by Supporting Company to provide a Performance Bank Guarantee (*as per format and instructions enclosed at Appendix- A3*), equivalent to 50% of the value of the PBG which is to be submitted by the bidding company, in case of being the successful bidder.

In cases where foreign based supporting company does not have Permanent Establishment in India as per Indian Income Tax Act, the bidding company can furnish Performance Bank Guarantee for an amount which is sum of PBG amount to be submitted by the bidder and additional PBG amount required to be submitted by the supporting company subject to the condition that supporting company have 100% paid up equity share capital of the bidder either directly or through intermediate subsidiaries or vice versa.



In such case bidding company shall furnish an undertaking that their foreign based supporting company is not having any Permanent Establishment in India in terms of Income Tax Act of India.

Undertaking from the supporting company to the effect that in addition to invoking the PBG submitted by the bidding company, the PBG provided by supporting company shall be invoked by GAIL due to non-performance of the bidding company.

Note:

In case Supporting Company fails to submit Bank Guarantee as per (iii) above, EMD/SD submitted by the bidder shall be forfeited.

The Financial BEC of tender is to be met by bidder on their own.

The Supporting Company shall meet conditions of 'Eligible Bidder', as per clause no.2.0 of Section-III (ITB).

**G. Apart from above, Bidder must submit all other relevant documents/ information as specified in the Scope of Work/SCC for Technical Evaluation of bid or specified elsewhere in the Tender Document, towards proof of its responsiveness.**

**H. EVALUATION METHODOLOGY:**

- The job is non-devisable/ non-splitable and price basis is FOT-Site(s). Hence, owner will evaluate and compare the bids, previously determined to be substantially responsive, on the **overall lowest offer basis**.
- In case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST (CGST & SGST/UTGST or IGST) during evaluation of bid.
- In case any cess on GST is applicable same shall also be considered in evaluation.
- **The input credit of GST (CGST & SGST/UTGST or IGST) shall be considered for evaluation of bids.**
- In case of a tie at the lowest bid (L1) position between two or more startup/non –startup bidders, the order/LOA will be placed on the bidder who has higher/ highest turnover in last audited financial year.

In case there is a tie at the lowest bid (L1) position between only startup bidders and none of them has past turnover, the Order/LOA will be placed on the startup who is registered earlier with Department for Promotion of Industry and Internal Trade (DPIIT).

- The evaluated price of bidders shall include the following:
  - i. Ex-works price quoted by the bidder (including packing, forwarding, and GST on components and raw materials but excluding Inland Transportation to Delivery Location) including cost of Inspection by Third Party Agency, mandatory spares etc. (wherever applicable).
  - ii. Inland transportation upto Delivery location and other costs incidental to delivery of goods .
  - iii. GST (CGST & SGST/UTGST or IGST) on the finished goods including inland transportation (i.e. on sl. no. i and ii above)



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- iv. Charges for incidental services like Erection, Installation & Commissioning, Training to the Purchasers' personnel, AMC (if any) etc. and GST (CGST & SGST/UTGST or IGST) on these services.
- v. Other loading, if any, as specified in Tender Document

NOTES:

- In case the bidder is covered under Composition Scheme under GST laws, then bidder should quote the price inclusive of the GST (CGST & SGST/UTGST or IGST). Further, such bidder should mention "Cover under composition system" in column for GST (CGST & SGST/UTGST or IGST) of price schedule.
- In case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST (CGST & SGST/UTGST or IGST) during evaluation of bid (if applicable as per act/law in vogue). Where GAIL is entitled for input credit of GST (CGST & SGST/UTGST or IGST), the same will be considered for evaluation of bid as per evaluation methodology of tender document.
- In case any cess on GST is applicable, same shall also be considered in evaluation.



## Appendix-A1

### **FORMAT OF AGREEMENT TO BE EXECUTED BETWEEN BIDDER AND THEIR FOREIGN BASED SUPPORTING COMPANY ON INDIAN STAMP PAPER OF REQUISITE VALUE DULY NOTARIZED.**

This agreement made this \_\_\_ day of \_\_\_ month \_\_\_ year by and between M/s. \_\_\_\_\_ (Fill in Bidder's full name, constitution and registered office address) \_\_\_\_\_ hereinafter referred to as bidder on the first part and M/s. \_\_\_\_\_ (Fill in full name, constitution and registered office address company which hold more than fifty percent of the paid up share capital of the bidding company or vice versa) hereinafter referred to as "Supporting Company" of the second part.

Whereas

M/s. GAIL (India) Limited (hereinafter referred to as GAIL) has invited offers vide their tender No. \_\_\_\_\_ for \_\_\_\_\_ and M/s. \_\_\_\_\_ (Bidder) intends to bid against the said tender and desires to have technical support of M/s. \_\_\_\_\_ [Supporting Company]

And whereas Supporting Company represents that they have gone through and understood the requirements of the subject tender and are capable and committed to provide the services as required by the bidder for successful execution of the contract, if awarded to the bidder.

Now, it is hereby agreed to by and between the parties as follows:

- a) M/s. \_\_\_\_\_ (Bidder) will submit an offer to GAIL for the full scope of work as envisaged in the tender document as a main bidder and liaise GAIL directly for any clarifications etc. in this context.
- b) M/s. \_\_\_\_\_ [Supporting Company] undertakes to provide technical support and expertise, expert manpower and project management including financial support, if so required, to the bidder to discharge its obligations as per the Scope of Work of the tender / Contract for which offer has been made by the bidder and accepted the GAIL.
- c) The Bidder/ Supporting Company holds more than 50% paid up equity capital of the Supporting Company/ Bidder.
- d) This agreement will remain valid till validity of bidder's offer to GAIL including extension if any and till satisfactory performance of the contract, the same is awarded by GAIL to the bidder.
- e) Supporting Company undertakes that this agreement shall remain enforceable even if their stake in Bidder is diminished during the execution of works under the contract between the Bidder and GAIL.
- f) The bidder shall have the overall responsibility of satisfactory execution of the contract awarded by GAIL, however without prejudice to any rights that GAIL might have against the Supporting Company



- g) It is further agreed that, if contract pursuant to Supporting Company shall be jointly and severely responsible to GAIL for the performance of works during contract period and for the satisfactory execution of the contract, and for all the consequences for non-performance thereof.

In witness whereof the parties hereto have executed this agreement on the date mentioned above.

For and on behalf of  
(Bidder)  
M/s.

For and on behalf of  
(Supporting Company)  
M/s.

Witness:  
1)  
2)

Witness:  
1)  
2)



## Appendix-A2

### **GUARANTEE BY THE FOREIGN BASED SUPPORTING COMPANY/ GUARANTOR**

THIS DEED OF GUARANTEE executed at ..... this ..... day of ..... by M/s ..... (mention complete name) a company duly established and existing under the laws of ..... (insert country), having its Registered Office at ..... hereinafter called “the Guarantor and/ or the Supporting Company” which expression shall, unless excluded by or repugnant to the subject or context thereof, be deemed to include its successors and permitted assignees.

#### FOR

M/s ..... (bidder) a company duly established and existing under the laws of ..... (insert country), having its Registered Office at ..... hereinafter called the “Bidder” which expression shall, unless excluded by or repugnant to the subject or context thereof, be deemed to include its successors and permitted assignees.

#### TOWARDS

M/s GAIL(India) Limited, a company duly registered under the law of India having its Registered Office at 16, Bhikaiji Cama Place, R. K. Puram, New Delhi-110066, India, and having Purchase center at ..... hereinafter called “GAIL” which expression shall unless excluded by or repugnant to the context thereof, be deemed to include its successor and assignees

WHEREAS GAIL has invited tender number ..... for ..... on ....., and the bidder has submitted its bid number..... in response to the above mentioned tender invited by GAIL.

AND WHEREAS the bidder/ Guarantor Company holds more than 50% paid up equity capital of the Supporting Company/ Bidder .

AND WHEREAS one of the condition for acceptance of Bidder’s bid against said tender is that in case the bidder is seeking to qualify upon the technical credentials of its Guarantor Company, then the bidder shall arrange a guarantee from its Guarantor Company guaranteeing due and satisfactory performance of the work covered under the said tender including any change therein as may be deemed appropriate by the GAIL at any stage.

The Guarantor represents that they have gone through and understood the requirement of the above said tender and are capable of and committed to provide technical and such other supports as may be required by the Bidder for successful execution of the same.

The Bidder and the Guarantor have entered into an agreement dated ..... as per which the Guarantor shall be providing technical, financial and such other supports as may be necessary for performance of the work under the tender, if the contract is awarded to the Bidder.

Accordingly, at the request of the Bidder and in consideration of and as a requirement for the GAIL to enter into agreement(s) with the Bidder, the Guarantor hereby guarantees and undertakes that





upon award of Contract to Bidder against bid number ....., made by the Bidder under tender number.....:

1. The Guarantor unconditionally agrees that in case of non-performance by the Bidder of any of its obligations in any respect, the Guarantor shall, immediately on receipt of notice of demand by the GAIL, take up the job without any demur or objection, in continuation and without loss of time and without any cost to the GAIL and duly perform the obligations of the Bidder to the satisfaction of the GAIL.
2. The Guarantor agrees that the Guarantee contained herein shall remain valid till the satisfactory execution and completion of the work (including discharge of the warranty obligations) awarded to the Bidder.
3. The Guarantor shall be jointly and severally responsible to GAIL for satisfactory performance of works during contract period and for the satisfactory execution of the contract, and for all consequences for non-performance thereof.
4. The liability of the Guarantor, under the Guarantee, is limited of the Bidder for non-performance under the contract entered between GAIL and the Bidder. This will, however, be in addition to the forfeiture of the Performance and Advance Guarantees furnished by the Bidder.
5. The Guarantor agrees to execute a Corporate Guarantee in favour of GAIL, guaranteeing the performance of obligations by the Bidder, in case the Contract is awarded to the Bidder by GAIL.
6. The Guarantor represents that this Guarantee has been issued after due observance of the appropriate laws in force in India. The Guarantor hereby undertakes that the Guarantor shall obtain and maintain in full force and effect all the governmental and other approvals and consents that are necessary and do all other acts and things necessary or desirable in connection therewith or for the due performance of the Guarantor's obligations towards GAIL.
7. Any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration. It is further agreed that Claims by and against the Guarantor, the Bidder and GAIL under the different contract to be entered pursuant to their relationship can be brought under a single reference and there shall be no bar on the consolidation of such proceedings before the same arbitral tribunal. The governing law shall be the laws of India and seat of arbitration shall be New Delhi, India. The language of arbitration shall be English.
8. The Guarantor hereby declares and represents that this Guarantee has been given without any undue influence or coercion, and that the Guarantor has fully understood the implications of the same.
9. In case of award of contract to the bidder, the Guarantor shall provide Performance Bank Security to GAIL, equivalent to 50% of the value of Performance Bank Security to be submitted by the bidding company, in the prescribed format within 15 days from the date of Fax of Acceptance, as guarantee for performance by the bidder/contractor. The Guarantor hereby expressly agrees that if in the opinion of GAIL, the Bidder / Contractor has failed to perform its obligations under the contract in any manner, GAIL shall have unfettered right to invoke the said Bank guarantee. The guarantor hereby agrees that decision of GAIL about performance of the bidder / contractor shall be final and shall not be questioned by the Guarantor. Guarantor shall have no objection to invocation of the Performance Bank Guarantee submitted by the Guarantor

OR

(applicable, subject to meeting the conditions stipulated in BEC in respect of additional Performance Bank Security)

In case of award of contract to the bidder, the bidder on behalf of the Guarantor shall provide additional Performance Bank Security to GAIL, equivalent to 50% of the value of Performance bank Security to be submitted by the bidding company, in the prescribed format within 15 days from the date of Fax of Acceptance, as guarantee for performance by the bidder/contractor. The



Guarantor hereby expressly agrees that if in the opinion of GAIL, the Bidder / Contractor has failed to perform its obligations under the contract in any manner, GAIL shall have unfettered right to invoke the said Bank guarantee. The Guarantor hereby agrees that decision of GAIL about performance of the bidder / contractor shall be final and shall not be questioned by the Guarantor. Guarantor shall have no objection to invocation of the Performance Bank Security submitted by the Bidder on behalf The Guarantor represents and confirms that the Guarantor has the legal capacity, power and authority to issue this Guarantee and that giving of this Guarantee and the performance and observations of the obligations hereunder do not contravene any existing laws.

(Strike through the clause whichever is not applicable)

10. The Guarantor represents and confirms that the Guarantor has the legal capacity, power and authority to issue this Guarantee and that giving of this Guarantee and the performance and observations of the obligations hereunder do not contravene any existing laws.

For & on behalf of (Supporting Company)

M/s \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

official seal \_\_\_\_\_

Witness:

1. Signature \_\_\_\_\_

Full Name \_\_\_\_\_

Address \_\_\_\_\_

2. Signature \_\_\_\_\_

Full Name \_\_\_\_\_

Address \_\_\_\_\_

#### **INSTRUCTIONS FOR FURNISHING GUARANTEE**

1. The official(s) executing the guarantee should affix full signature(s) on each page.
2. Resolution passed by Board of Directors of the guarantor company authorizing the signatory(ies) to execute the guarantee, duly certified by Company Secretary should be furnished along with Guarantee.



Appendix-A2A

**CERTIFICATE ISSUED BY COMPANY SECRETARY OF THE GUARANTOR  
COMPANY**

“Obligations contained in deed of guarantee No. \_\_\_\_\_ furnished against tender No. \_\_\_\_\_ are enforceable against the Guarantor Company and the same do not, in any way, contravene any law of the country of which the Guarantor Company is the subject.”

The above certificate should be enclosed alongwith the Guarantee.



Appendix-A3

**PROFORMA OF "BANK GUARANTEE" TOWARDS PERFORMANCE SECURITY BY  
FOREIGN BASED SUPPORTING COMPANY OF THE BIDDING COMPANY**

**CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT**

**(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

To,  
M/s GAIL (INDIA) LIMITED

**Dear Sir(s),**

M/s. \_\_\_\_\_ having registered office at \_\_\_\_\_ (herein after called the "CONTRACTOR/SUPPLIER/SERVICE PROVIDER" which expression shall wherever the context so require include its successors and assignees) have been placed/ awarded the job/work of \_\_\_\_\_ vide PO/LOA /FOA No. \_\_\_\_\_ dated \_\_\_\_\_ (herein after called CONTRACT/ ORDER) for GAIL (India) Limited having registered office at 16, Bhikaiji Cama Place, R.K. Puram, New Delhi (herein after called the "GAIL" which expression shall wherever the context so require include its successors and assignees).

Further, M/s \_\_\_\_\_ (Name of the Supporting company) having its registered/head office at \_\_\_\_\_ based on whose experience/technical strength, the CONTRACTOR/SUPPLIER/SERVICE PROVIDER has qualified for award of contract (hereinafter referred to as the 'SUPPORTING COMPANY') which expression shall, unless repugnant to the context or meaning thereof include all its successors, administrators, executors and assignees) has agreed to provide complete technical and other support to the CONTRACTOR/SUPPLIER/SERVICE PROVIDER for successful completion of the contract/order as mentioned above, entered between GAIL and the CONTRACTOR/SUPPLIER/SERVICE PROVIDER and GAIL having agreed that the 'SUPPORTING COMPANY' shall furnish to GAIL a performance guarantee for Indian Rupees/US\$ ..... towards providing complete financial and other support to the CONTRACTOR/SUPPLIER/SERVICE PROVIDER for successful completion of the contract/order as mentioned above,

The said M/s. \_\_\_\_\_ (Supporting Company) has approached us and at their request and in consideration of the premises we having our office at \_\_\_\_\_ have agreed to give such guarantee as hereinafter mentioned.

2. We (name of the bank) \_\_\_\_\_ registered under the laws of \_\_\_\_\_ having head/registered office at \_\_\_\_\_ (hereinafter referred to as "the Bank", which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and permitted assignees) do hereby guarantee and undertake to pay immediately on first demand in writing any/all moneys to the extent of Indian Rs./US\$ (in figures) \_\_\_\_\_ (Indian Rupees/US Dollars (in words) \_\_\_\_\_) without any demur, reservation, contest or protest and/or without any reference to the 'SUPPORTING COMPANY'. Any such demand made by GAIL on the Bank by serving a written notice shall be conclusive and



binding, without any proof, on the bank as regards the amount due and payable, notwithstanding any dispute(s) pending before any Court, Tribunal, Arbitrator or any other authority and/or any other matter or thing whatsoever, as liability under these presents being absolute and unequivocal. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable until it is discharged by GAIL in writing. This guarantee shall not be determined, discharged or affected by the liquidation, winding up, dissolution or insolvency of the 'SUPPORTING COMPANY' and shall remain valid, binding and operative against the bank.

3. The Bank also agrees that GAIL at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the 'SUPPORTING COMPANY' and notwithstanding any security or other guarantee that GAIL may have in relation to the 'SUPPORTING COMPANY's liabilities.
4. The Bank further agrees that GAIL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said CONTRACT/ORDER or to extend time of performance by the said CONTRACTOR/SUPPLIER/SERVICE PROVIDER from time to time or to postpone for any time or from time to time exercise of any of the powers vested in GAIL against the said CONTRACTOR/SUPPLIER/SERVICE PROVIDER and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said CONTRACTOR/SUPPLIER/SERVICE PROVIDER or for any forbearance, act or omission on the part of GAIL or any indulgence by GAIL to the said CONTRACTOR(s) or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
5. The Bank further agrees that the Guarantee herein contained shall remain in full force during the period that is taken for the performance of the CONTRACT/ORDER and all dues of ONGC under or by virtue of this CONTRACT/ORDER have been fully paid and its claim satisfied or discharged or till GAIL discharges this guarantee in writing, whichever is earlier.
6. This Guarantee shall not be discharged by any change in our constitution, in the constitution of GAIL or that of the 'SUPPORTING COMPANY'.
7. The Bank confirms that this guarantee has been issued with observance of appropriate laws of the country of issue.
8. The Bank also agrees that this guarantee shall be governed and construed in accordance with Indian Laws and subject to the exclusive jurisdiction of Indian Courts of the place from where the purchase CONTRACT/ORDER has been placed.
9. Notwithstanding anything contained hereinabove, our liability under this Guarantee is limited to Indian Rs./US\$ (in figures) \_\_\_\_\_ (Indian Rupees/US Dollars (in words) \_\_\_\_\_ only) and our guarantee shall remain in force until (indicate the date of expiry of bank guarantee) \_\_\_\_\_.
8. We have power to issue this guarantee in your favor under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney, dated \_\_\_\_\_ granted to him by the Bank.



Yours faithfully,

Bank by its Constituted Attorney

Signature of a person duly  
Authorized to sign on behalf of the Bank  
E-mail :  
Telephone/Mobile No. :

**INSTRUCTIONS FOR FURNISHING**  
**"CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT" BY "BANK**  
**GUARANTEE"**

1. The Bank Guarantee by successful Bidder(s) will be given on non-judicial stamp paper as per 'stamp duty' applicable. The non-judicial stamp paper should be in name of the issuing bank. In case of foreign bank, the said Bank Guarantee to be issued by its correspondent bank in India on requisite non-judicial stamp paper and place of Bid to be considered as Delhi.
2. The Bank Guarantee by Bidders will be given from bank as specified at clause no. 16.1 of ITB of Tender Document.
3. A letter from the issuing bank of the requisite Bank Guarantee confirming that said Bank Guarantee and all future communication relating to the Bank Guarantee shall be forwarded to Purchaser.
4. If a Bank Guarantee is issued by a commercial bank, then a letter to Purchaser and copy to Consultant (if applicable) confirming its net worth is more than Rs. 100,00,00,000.00 [Rupees One Hundred Crores] or its equivalent in foreign currency alongwith documentary evidence or in the Bank Guarantee itself..



**SECTION-III**

**INSTRUCTIONS TO**  
**BIDDERS**

**(TO BE READ IN CONJUNCTION WITH**  
**BIDDING DATA SHEET (BDS)**



**SECTION-III**

**INSTRUCTION TO BIDDERS**

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## INSTRUCTIONS TO BIDDERS [ITB]

### [A] – GENERAL

#### **1 SCOPE OF BID**

- 1.1 The Purchaser as defined in the "General Conditions of Contract-Goods [GCC-Goods]", wishes to receive bids as described in this Invitation For Bid (the “**Tender Document /Bid Document**”) issued by the Purchaser. Purchaser/Owner occurring herein under shall be considered synonymous.
- 1.2 SCOPE OF BID: The scope of Supply shall be as defined in the Tender Document.
- 1.3 The successful Bidder (the “**Supplier**”) shall complete delivery of goods alongwith its incidental services (if any) as per Specification, Scope of Supply/Job within the period stated in Special Conditions of Contract.
- 1.4 Throughout the Tender Documents, the terms 'Bid', 'Tender', ‘Offer’ & ‘proposal’ and their derivatives [Bidder/Tenderer, Bid/Tender/Offer etc.] are synonymous. Further, 'Day' means 'Calendar Day' and 'Singular' also means 'Plural'.

#### **2 ELIGIBLE BIDDERS**

- 2.1 The Bidder shall not be under a declaration of ineligibility by Purchaser for Corrupt/ Fraudulent/ Collusive/ Coercive practices, as defined in ITB, Clause No. 39” (Action in case Corrupt/ Fraudulent/ Collusive/ Coercive Practices).
- 2.2 The Bidder is not put on ‘Holiday’ by GAIL or Public Sector Project Management Consultant (like EIL, Mecon etc. only due to “poor performance” or “corrupt and fraudulent practices”) or banned/blacklisted by Government department/ Public Sector on due date of submission of bid. Further, neither bidder nor their allied agency/(ies) (as defined in the Annexure-I, Procedure for Action in case of Corrupt/ Fraudulent/ Collusive/ Coercive Practices) are on banning list of GAIL or the Ministry of Petroleum and Natural Gas. If the Tender Document is/was issued inadvertently / downloaded from, then Bid submitted by such Bidder shall not be considered for opening/ evaluation/ award. In case there is any change in status of the declaration prior to award of Contract, the same has to be promptly informed to GAIL by the Bidder. It shall be the sole responsibility of the bidder to inform about their status regarding para 1 of clause 2.2 herein above on due date of submission of bid and during the course of finalization of the tender. Concealment of the facts shall tantamount to misrepresentation of facts and shall lead to action against such Bidders as per clause 39 of ITB.
- 2.3 The Bidder should not be under any liquidation court receivership or similar proceedings on due date of submission of bid. In case there is any change in status of the declaration prior to award of contract, the same has to be promptly informed to GAIL by the bidder. It shall be the sole responsibility of the bidder to inform GAIL there status on above on due date of submission of bid and during the course of finalization of the tender. Concealment of the facts shall tantamount to misrepresentation of facts and shall lead to action against such Bidders as per clause no.39 of ITB.
- 2.4 Bidder shall not be affiliated with a firm or entity:
- (i) that has provided consulting services related to the work to the Purchaser during the preparatory stages of the work or of the project of which the works/services forms a part of or
  - (ii) that has been hired (proposed to be hired) by the Purchaser as an Engineer/ Consultant for the Contract.
- 2.4 Neither the firm/entity appointed as the Project Management Consultant (PMC) for a Project (except feasibility report) nor its affiliates shall be allowed to participate in the tendering process unless it is the sole Licensor/Licensor nominated agent/ vendor.



2.5 Pursuant to qualification criteria set forth in the Tender Document, the Bidder shall furnish all necessary supporting documentary evidence to establish Bidder's claim of meeting qualification criteria.

2.6 Power of Attorney:

Power of Attorney (POA) to be issued by the bidder in favour of the authorised employee(s), in respect of the particular tender, for purpose of signing the documents including bid, all subsequent communications, agreements, documents etc. pertaining to the tender and act and take any and all decision on behalf of the bidder. Any consequence resulting due to such signing shall be binding on the Bidder.

- I) In case of a Single Bidder, the Power of Attorney shall be issued as per the constitution of the bidder as below:
- In case of Proprietorship:** by Proprietor
  - In case of Partnership:** by all Partners or Managing Partner
  - In case of Limited Liability Partnership:** by any bidder's employee authorized in terms of Deed of LLP
  - In case of Public / Limited Company:** PoA in favour of authorized employee(s) by Board of Directors through Board Resolution or by the designated officer authorized by Board to do so. Such Board Resolution should be duly countersigned by Company Secretary / MD / CMD / CEO.
- II) In case of a Consortium, Power of Attorney shall be issued both by Leader as well as Consortium Member(s) of the Consortium as per procedure defined herein above in favour of employee of leader of Consortium.

The authorized employee(s) of the Bidder shall be signing the Bid and any consequence resulting due to such signing shall be binding on the Bidder.

The Power of Attorney should be valid till award of contract / order to successful bidder.

### **3 BID FROM "CONSORTIUM"/"JOINT VENTURE" – NOT APPLICABLE**

### **4 ONE BID PER BIDDER**

4.1 A Bidder shall submit only 'one [01] Bid' in the same Bidding Process either as single entity or as a member of any consortium (wherever consortium bid is allowed). A Bidder who submits or participates in more than 'one [01] Bid' will cause all the proposals in which the Bidder has participated to be disqualified.

4.2 More than one bid means bid(s) by bidder(s) having same Proprietor / Partners / Limited Liability Partner in any other Bidder (s). Further, more than one bids shall also include two or more bidders having common power of attorney holder.

Failure to comply this clause during tendering process will disqualify all such bidders from process of evaluation of bids.

4.3 Alternative Bids shall not be considered.

4.4 The provisions mentioned at sl. no. 4.1 and 4.2 shall not be applicable wherein bidders are quoting for different Items / Sections / Parts / Groups/ SOR items of the same tender which specifies evaluation on Items / Sections / Parts / Groups/ SOR items basis.

### **5 COST OF BIDDING**

5.1 The Bidder shall bear all costs associated with the preparation and submission of the Bid including but not limited to Documentation Charges, Bank charges, all courier charges, translation charges, authentication charges and any associated charges including taxes &



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duties thereon. Further, GAIL will in no case, be responsible or liable for these costs, regardless of the outcome of the bidding process.

**6 SITE VISIT**

- 6.1 The Bidder is advised to visit and examine the site and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for the required supply/job. The costs of visiting the site shall be borne by the Bidder.
  - 6.2 The Bidder or any of its personnel or agents shall be granted permission by the Purchaser to enter upon its premises and land for the purpose of such visits, but only upon the express conditions that the Bidder, its personnel and agents will release and indemnify the Purchaser and its personnel, agents from and against all liabilities in respect thereof, and will be responsible for death or injury, loss or damage to property, and any other loss, damage, costs, and expenses incurred as a result of inspection.
  - 6.3 The Bidder shall not be entitled to hold any claim against GAIL for non-compliance due to lack of any kind of pre-requisite information as it is the sole responsibility of the Bidder to obtain all the necessary information with regard to site, surrounding, working conditions, weather etc. on its own before submission of the Bid.
-



## [B] – TENDER DOCUMENT

### **7 CONTENTS OF TENDER DOCUMENT**

7.1 The contents of Tender Document are those stated below, and should be read in conjunction with any 'Addendum / Corrigendum and Clarification(s) ' issued in accordance with "ITB: Clause- 8 & 9":

- Section-I : Invitation for Bid [IFB]\*
- Section-II : Bid Evaluation Criteria [BEC] & Evaluation Methodology
- Section-III : Instructions to Bidders [ITB], Annexures & Forms & Format \*\*
- Section-IV : General Conditions of Contract [GCC]-Goods\*\*\*
- Section-V : Special Conditions of Contract [SCC]
- Section-VI : Technical Specifications , Drawing (wherever applicable) and scope for incidental services (wherever applicable)
- Section-VII : Price Schedule/ Schedule of Rates

\*Request for Quotation', wherever applicable, shall also form part of the Bidding Document.

\*\* The subject tender is based on standard formats and applicability of some specific clauses may be seen in Annexure-IV i.e. BDS (Bidding Data Sheet)

\*\*\*General Conditions of Contract - Goods is available on GAIL's Tender website (<http://gailtenders.in/Gailtenders/gccs.asp>). Further, Hindi version of GCC is available on GAIL's tender website ([www.gailtenders.in](http://www.gailtenders.in)) for reference. However, in case of any discrepancy in English & its Hindi translation, for interpretation and legal aspects, the English version shall prevail.

7.2 The Bidder is expected to examine all instructions, forms, terms & conditions of the Tender Document. The RFQ & IFB together with all its attachments thereto, shall be considered to be read, understood and accepted by the Bidders. Failure to furnish all information required by the Tender Document or submission of a Bid not substantially responsive to the Tender Document in every respect will be at Bidder's risk and may result in the rejection of his Bid.

### **8 CLARIFICATION OF TENDER DOCUMENT**

8.1 A prospective Bidder requiring any clarification(s) of the Tender Document may notify GAIL in writing or by email in the format "F-11" at GAIL's mailing address indicated in the IFB/BDS no later than 02 (two) days prior to pre-bid meeting (in cases where pre-bid meeting is scheduled) or 05 (five) days prior to the bid closing date in cases where pre-bid meeting is not held. GAIL reserves the right to ignore the bidders request for clarification if received after the aforesaid period. GAIL may respond in writing to the request for clarification. GAIL's response including an explanation of the query, but without identifying the source of the query will be uploaded on Websites as mentioned at clause no. 2.0 (F) of IFB.

8.2 Any clarification or information required by the Bidder but same not received by the Purchaser as per instructions at clause 8.1 above is liable to be considered as "no clarification / information required".

### **9 AMENDMENT OF TENDER DOCUMENT**

9.1 At any time prior to the 'Due Date & Time of Bid Submission', Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder(s), modify the Tender Document by addenda/ corrigendum.

9.2 Any addendum/ corrigendum thus issued shall be integral part of the Tender Document and shall be hosted on the websites as provided at clause no. 2.0 (F) of IFB. Bidders have to take into account all such addendum/ corrigendum before submitting their Bid.



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9.3 The Purchaser, if consider necessary, may extend the bid due date in order to allow the Bidders a reasonable time to furnish their most competitive bid taking into account the addenda/ corrigendum issued thereof.

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**[C] – PREPARATION OF BID**

**10 LANGUAGE OF BID:**

The bid prepared by the Bidder and all correspondence, drawing(s), document(s), certificate(s) etc. relating to the Bid exchanged by Bidder and GAIL shall be written in English language only. In case a document, certificate, printed literature etc. furnished by the Bidder in a language other than English, the same should be accompanied by an English translation duly authenticated by the Chamber of Commerce of Bidders Country, in which case, for the purpose of interpretation of the Bid, the English translation shall govern.

**11. DOCUMENTS COMPRISING THE BID**

11.1 Bidders are requested to refer instructions for participating in e-Tendering, Ready Reckoner for Bidders and FAQs available in e-Portal and bids submitted manually shall be rejected. All pages of the Bid must be digitally signed by the "authorized signatory" of the Bidder holding Power of Attorney. The Bid must be submitted on GAIL's e-portal (<https://etender.gail.co.in>) as follows:-:

**11.1.1 PART-I: "TECHNO-COMMERCIAL / UN-PRICED BID"**

Comprising all the below mentioned documents should be uploaded in the private area earmarked (Tender Document) in the GAIL's e-portal::

- (a) 'Covering Letter' on Bidder's 'Letter head' clearly specifying the enclosed contents with index.
- (b) 'Bidder's General Information', as per 'Form F-1'.
- (c) Copy of Price Schedule/ Schedule of Rate (SOR) with prices blanked out but mentioning "Quoted" / "Not Quoted" (as applicable) written against each item, in support of having submitted prices in the Priced Bid/SOR strictly in the format provided in the Tender Document.
- (d) 'Letter of Authority' on the Letter Head, as per 'Form F-3'
- (e) 'Agreed Terms and Conditions', as per 'Form F-5'
- (f) Duly certified / attested documents in accordance with the "Bid Evaluation Criteria [BEC]", Section II of Tender Document.
- (g) Copy of Power of Attorney /copy of Board Resolution, in favour of the authorized signatory of the Bid, as per clause no.2.6 of ITB.
- (h) Any other information/details required as per Tender Document
- (i) Copy of EMD, as per Clause 16 of ITB
- (j) All other forms and Formats including Annexures.
- (k) Copy of Integrity Pact as per Form F-13
- (l) Tender Document, its Corrigendum/Amendment/Clarification(s) digitally signed by the Authorized Signatory holding POA.
- (m) Additional document specified in BDS, SCC, Scope of Supply or mentioned elsewhere in the Tender Document.

Further, –Bidders must submit the original "Bid Security / EMD", Power of Attorney, Integrity Pact and any other documents specified in the Tender Document to the address mentioned in IFB, in a sealed envelope, super scribing the details of Tender Document (i.e. tender number & tender for) within 7 days from the Bid Due Date.

Bidders are required to submit the EMD in original by Bid Due Date and Time or upload a scanned copy of the same in the Part-I of the Bid. If the Bidder is unable to submit EMD in original by Bid Due Date and Time, the Bidder is required to upload a scanned copy of the EMD in Part-I of Bid, provided the original EMD, copy of which has been uploaded, is



received within 7 days from the Bid Due Date, failing which the Bid will be rejected irrespective of their status/ranking in tendering process and notwithstanding the fact that a copy of EMD was earlier uploaded by the Bidder.

### 11.1.2 PART-II: Price Bid

Part-II of the Bid shall contain Price Bid only. The Prices are to be submitted strictly in the Price Schedule/ Schedule of Rate (SOR) format of the Tender Document as per instructions mentioned hereunder and to be digitally signed and uploaded in SOR attachment in GAIL's e-Portal. GAIL shall not be responsible for any failure on the part of the bidder to follow the instructions given in the Note below.

Note:

- i) Bidders are advised NOT to mention Rebate/Discount separately, either in the SOR format or anywhere else in the Bid. In case Bidder(s) intend to offer any Rebate/Discount, they should include the same in the item rate(s) itself under the "Price Schedule/ Schedule of Rates (SOR)" and indicate the discounted unit rate(s) only.
- ii) If any unconditional rebate has been offered in the quoted rate the same shall be considered in arriving at evaluated price. However, no cognizance shall be taken for any conditional discount for the purpose of evaluation of the Bid.
- iii) In case, it is observed that any of the Bidder(s) has/have offered *suo-moto* Discount/Rebate after opening of unpriced bid but before opening of price bid, such discount /rebate(s) shall not be considered for evaluation. However, in the event of the Bidder emerging as the lowest evaluated Bidder without considering the discount/rebate(s), then such discount/ rebate(s) offered by the Bidder shall be considered for Award and the same will be conclusive and binding on the Bidder.
- iv) In the event as a result of techno-commercial discussions or pursuant to seeking clarifications / confirmations from Bidder, while evaluating the un-priced part of the Bid, any of the bidders offers upward revised prices; such Bidder(s) will be requested to withdraw the revised prices failing which the bid will not be considered for further evaluation.

11.2 In case of bids invited under Single Bid System (clause no. 2.0(C) of IFB refers), all the documents as specified at Clause 11.1.1 & 11.1.2 of ITB can be submitted in single envelope /folder, as per instructions of Tender Document..

## 12 **BID PRICES**

12.1 Bidders shall indicate the following in the Price Schedule/SOR format:-

- A) Ex-works Price including packing and forwarding charges (such price to include all costs as well as duties and taxes paid or payable on components and raw materials incorporated or to be incorporated in the goods).
- B) The Bidder shall indicate breakup of the quantum of imports involved for import of necessary raw materials and components giving CIF value of Import and included in bid price (wherever specified in BDS). Essentiality certificate / [Letter](#) may be provided by the Purchaser for Project imports (wherever applicable).
- C) Inland transportation upto Delivery Location and other costs incidental to delivery. The material is required to be delivered through a registered common carrier as per section 3 of Carriage by the Road Act 2007. Also, GAIL reserves the right to transport the material with it's own transporter.
- D) GST (CGST & SGST/UTGST or IGST) on the finished goods as well as on inland transportation,





- E) Charges for incidental services and GST (CGST & SGST/UTGST or IGST) on these services as per the Price Schedule/ Schedule of Rates.
- 12.2 In case of import of raw material and components incorporated or to be incorporated in the finished goods (clause no. 12.1 (C) refers), the Bidder shall provide description of such material, quantity, rate, value, Import Duty considered etc. as per proforma provided in Price Schedule/ SOR.
- 12.3 It shall be the endeavour of the Purchaser to arrange transit insurance (refer BDS for details).
- 12.4 Prices must be filled exactly in the format for "Price Schedule/ Schedule of Rates [SOR]" enclosed as part of Tender Document. If quoted in separate typed sheets and any variation in item description, unit, quantity, any conditions of SOR etc. is noticed, the Bid is liable to be rejected.
- 12.5 The delivery basis of the goods is mentioned in BDS. If the Goods are dispatched through dedicated full truck load, date of receipt of Goods by Purchaser at its designated site(s) /Store shall be considered as the date of delivery. Similarly, in case of break-bulk dispatches, the date of LR/GR shall be considered as date of delivery. The delivery terms [other than those mentioned in BDS] shall be interpreted as per INCOTERMS®2010 or its latest version.
- 12.6 All duties, taxes and other levies (if any) payable by the Seller under the Contract or for any other cause, except GST (CGST & SGST/UTGST or IGST) on finished product & on the incidental services, shall be included in the rates / prices and the total bid-price submitted by the Bidder. The quoted rate of GST (CGST & SGST/UTGST or IGST) on finished product & on the incidental services shall be indicated in Agreed Terms & Conditions and the bid prices. Bidders are required to quote the prices after carefully reading the provisions mentioned in tender document including SCC, GCC, Scope of Work, etc.
- 12.7 Prices quoted by the Bidder, shall remain firm and fixed and valid until completion of the Contract and will not be subject to variation on any account, whatsoever; until any price escalation/variation is allowed elsewhere in the Tender Document.
- 12.8 The Bidder shall quote the rates in 'figures' & 'words', as per Price Schedule /SOR format provided in the Tender Document. There should not be any discrepancy between the prices indicated in figures and in words. In case of any discrepancy, the same shall be dealt as per clause no. 30 of ITB.
- 12.9 Further, Bidder shall also mention the Harmonized System Nomenclature (HSN) at the designated place in Price Schedule.

### 13 **GST (CGST & SGST/ UTGST or IGST)**

- 13.1 Within the contractual delivery period, the statutory variation in applicable GST (CGST & SGST/UTGST or IGST) on supply and on incidental services, shall be to GAIL's account. Beyond the contractual delivery period, in case GAIL is not entitled for input tax credit of GST (CGST & SGST/UTGST or IGST), then any increase in the rate of GST (CGST & SGST/UTGST or IGST) beyond the contractual delivery period shall be to Supplier's account whereas any decrease in the rate GST (CGST & SGST/UTGST or IGST) shall be passed on to the Purchaser. Beyond the contractual delivery period, in case GAIL is entitled for input tax credit of GST (CGST & SGST/UTGST or IGST), then statutory variation in applicable GST (CGST & SGST/UTGST or IGST) on supply and on incidental services, shall be to GAIL's account. The base date for the purpose of applying statutory variation shall be the Bid Due Date.
- 13.2 In case of statutory variation(s) in the taxes & duties mentioned at clause no. 13.1 above, the Supplier shall submit a copy of the 'Government Notification' to evidence the rate as applicable on the Bid Due Date and on the date of revision. Claim for payment of Statutory



- variation should be raised preferably along with the e-Invoice/Invoice. Any claim for arrears on account of statutory variation shall be submitted to Purchaser within two [02] months from the date of issue of such 'Government Notification', otherwise such claim may not be entertained.
- 13.3 With respect to clause no. 12.1 (C) and 12.2, the statutory variation in Import Duty (except component (s) for which input tax credit is available) on CIF value indicated, within contractual delivery period shall be to Purchaser's account against submission of the documentary evidence. However, any increase in the rate of Import Duty beyond the contractual delivery / completion period shall be to Bidder's account. In case of wrong classification, no variation including statutory variation of Import Duty will be payable to Supplier and any penalty due to the same shall be to Supplier's account. Any decrease in the rate of Import Duty shall be passed on to the Purchaser. Statutory variation on account of Import Duty will be allowed only on component for which input tax credit is not available.
- 13.4 **New Taxes & duties:** Any new taxes & duties, if imposed by the State/ Central Govt. of India on the finished goods after the due date of bid submission but before the Contractual Delivery/Completion Date, shall be reimbursed to the Supplier on submission of copy of notification(s) issued from State/ Central Govt. Authorities along with documentary evidence for proof of payment of such taxes & duties, but only after ascertaining its applicability with respect to the Contract.
- 13.5 Deemed Export benefits are not applicable and Bidder should furnish prices without considering the same.
- 13.6 **Regarding Reconciliation between GSTR 2A and Input Tax Credit**  
Supplier shall ensure timely submission of correct e-invoice /invoice(s), as per GST rules/regulation, with all required supporting document(s) within a period specified in Contract to enable GAIL to avail input credit of GST (CGST & SGST/UTGST or IGST). Further, returns and details required to be filled under GST laws & rules should be timely filed by Supplier of Goods / Services with requisite details.  
If input tax credit is not available to GAIL for any reason not attributable to GAIL, then GAIL shall not be obligated or liable to pay or reimburse GST (CGST & SGST/UTGST or IGST) claimed in the e-invoice/invoice(s) and shall be entitled to deduct / setoff / recover such GST amount (CGST & SGST/UTGST or IGST) or Input Tax Credit amount together with penalties and interest, if any, against any amounts paid or becomes payable by GAIL in future to the Supplier/Contractor under this contract or under any other contract.  
In case CBIC (Central Board of Indirect Taxes and Customs)/ any tax authority / any equivalent government agency brings to the notice of GAIL that the Supplier has not remitted the amount towards GST (CGST & SGST/UTGST or IGST) collected from GAIL to the government exchequer, then, that Supplier shall be put under Holiday list of GAIL for period of six months after following the due procedure. This action will be in addition to the right of recovery of financial implication arising on GAIL.
- 13.7 The supplier shall mention the particulars of GAIL (India) Limited, (place specified in BDS) on the e-Invoice/Invoice-. Besides, if any other particulars of GAIL are required to be mentioned, under GST rules/ regulations on the date of dispatch, the same shall also be mentioned on the e-Invoice/Invoice.
- 13.8 GAIL will prefer to deal with registered supplier of goods/ services under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, there prices will be loaded with applicable **GST (CGST & SGST/UTGST or IGST)** during evaluation of bid (if applicable as per Govt. Act/ Law in vogue). Where GAIL is entitled for input credit of **GST (CGST & SGST/UTGST or IGST)**, the same will be considered for evaluation of bid as per evaluation methodology of tender document. Further, an unregistered bidder is required to mention its Income Tax PAN in bid document.



13.9 In case the GST rating of vendor on the GST portal / Govt. official website is negative / black listed, then the bids may be rejected by GAIL. Further, in case rating of bidder is negative / black listed after award of work for supply of goods / services, then GAIL shall not be obligated or liable to pay or reimburse **GST (CGST & SGST/UTGST or IGST)** to such vendor and shall also be entitled to deduct / recover such **GST (CGST & SGST/UTGST or IGST)** along with all penalties / interest, if any, incurred by GAIL.

**13.10 Anti-profiteering clause**

As per Clause 171 of GST Act, it is mandatory to pass on the benefit due to reduction in rate of tax or from input tax credit to the consumer by way of commensurate reduction in prices. The Service Provider may note the above and quote their prices accordingly.

13.11 GST (CGST & SGST/UTGST or IGST) is implemented w.e.f. 01.07.2017 which subsumed various indirect taxes and duties applicable before 01.07.2017. Accordingly, the provisions of General Condition of Contract relating to taxes and duties which are subsumed in GST are modified to aforesaid provisions mentioned in clause no. 12 and 13 of ITB.

13.12 GST, as quoted by the bidder, shall be deemed as final and binding for the purpose of bid evaluation (applicable for tenders where bidder quotes the GST rates). In case a bidder enters “zero/blank” GST or an erroneous GST, the bid evaluation for finalizing the L1 bidder will be done considering the quoted GST rate. No request for change in GST will be entertained after submission of bids.

In cases where the successful bidder quotes a wrong GST rate, for releasing the order, the following methodology will be followed:

- In case the actual GST rate applicable is lower than the quoted GST rate, the actual GST rate will be added to the quoted basic prices. The final cash outflow will be based on actual GST rate.
- In case the actual GST rate applicable is more than the quoted GST rate, the basic prices quoted will be reduced proportionately, keeping the final cash outflow the same as the overall quoted amount.

Based on the Total Cash Outflow calculated as above, GAIL shall place orders.

13.13 Wherever TDS under GST Laws has been deducted from the e-Invoices/invoices raised / payments made to the vendors, as per the provisions of the GST law / Rules, Vendors should accept the corresponding GST-TDS amount populated in the relevant screen on GST common portal ([www.gst.gov.in](http://www.gst.gov.in)). Further, Vendors should also download the GST TDS certificate from GST common portal (reference path: Services > User Services > View/Download Certificates option).

**13.14 E-Invoicing and TCS in tender document:**

**1. Provision w.r.t. E- Invoicing requirement as per GST laws**

**(a) Provision to be included in tender for Procurement of Goods/ Works/ Services/ Consultancy Services [under clause relating to “Taxes & Duties”/ “GST (CGST & SGST/ UTGST or IGST)” of Model ITBs]**

Supplier / Service Provider / Contractor/ Consultant (s) who is required to comply with the requirements of E-invoice for B2B transactions as per the requirement of GST Law will ensure the compliance of requirement of E Invoicing under GST law. If the invoice issued without following this process, such invoice can-not be processed for payment by GAIL as no ITC is allowed on such invoices.

Therefore, all the payments to such supplier / service provider / contractor/ consultant who is liable to comply with e-invoice as per GST Laws shall be made against the proper e-



invoice(s) only. Further, returns and details required to be filled under GST laws & rules against such e-invoices should be timely filed by Supplier of Goods / Services with requisite details.

If input tax credit is not available to GAIL for any reason attributable to supplier / service provider / contractor/ consultant (both for E-invoicing cases and non-E-invoicing cases), then GAIL shall not be obligated or liable to pay or reimburse GST (CGST & SGST/UTGST or IGST) claimed in the invoice(s) and shall be entitled to deduct / setoff / recover such GST amount (CGST & SGST/UTGST or IGST) or Input Tax Credit amount together with penalties and interest, if any, by adjusting against any amounts paid or becomes payable in future to the supplier / service provider / contractor/ consultant under this contract or under any other contract.

**To ensure compliance, undertaking in requisite format is to be submitted by Supplier/Contractor/ Service Provider/ Consultant as per format enclosed at Annexure-1 along with documents for release of payment.**

**(b) Provision to be included in Agreed Terms and Condition Format**

- Whether bidder is liable to raise E-Invoice as per GST Act
- If yes, bidder will raise E-Invoice and confirm compliance to provision of tender in this regard.

**2. Provision w.r.t. TCS on Sale of Goods under section 206C(1H) of Income Tax Act (Applicable only in case of procurement of Goods)**

**(a) Provision to be included in tender for Procurement of Goods [as a new provision after last clause of Model ITBs]**

As per section 206C(1H) of the Income Tax Act, 1961 inserted by Finance Act 2020, a seller (as defined under the said section), who receives any amount as consideration for sale of any goods to a buyer (as defined under the provision) of the value or aggregate of such value exceeding fifty lakh rupees in any previous year, shall levy at the time of sale, TCS for a sum equal to % as defined (Presently 0.1 per cent) of the sale consideration exceeding fifty lakh rupees (or limit as specified in the Act) and deposit the same with Government on receipt/collection of consideration from GAIL.

GAIL will avail TCS credit and adjust such TCS credit against its income tax liability on the basis of TCS certificate to be issued by seller to GAIL.

**(b) Confirmation w.r.t. TCS in Agreed Terms and Conditions Format:**

- i. Whether bidder as a seller is liable to levy TCS on sale of goods as defined under the said provision of Income Tax.
- ii. If yes, bidder as a seller will raise proper tax invoice on sale of goods to GAIL showing TCS component.
- iii. Bidder as a seller will comply with all the statutory requirements of TCS regarding deposit of TCS with Government on receipt/collection of consideration from GAIL and issue of TCS certificate to GAIL timely.



If GAIL is unable to avail the benefit of TCS Credit on such amount collected by the Supplier, for any reason attributable to Supplier, then GAIL shall be entitled to deduct / recover such amount together with penalties and interest, if any, by adjusting any amounts to be paid or becomes payable in future to the Supplier under this contract or under any other contract.

**14 BID CURRENCIES:**

Bidders must submit Bid in Indian Rupees only.

**15 BID VALIDITY:**

- 15.1 Bid shall be kept valid for period specified in BDS from the final 'Bid Due Date'. A Bid valid for a shorter period may be rejected by GAIL as 'non-responsive'.
- 15.2 In exceptional circumstances, prior to expiry of the original 'Bid Validity Period', the Purchaser may request the Bidder to extend the 'Period of Bid Validity' for a specified additional period. The request and the responses thereto shall be made in writing or by email. A Bidder may refuse the request without forfeiture of his 'Bid Security'. A Bidder agreeing to the request will not be required or permitted to modify his Bid, but will be required to extend the validity of its 'Bid Security' for the period of the extension and in accordance with "ITB: Clause-16" in all respects.

**16 EARNEST MONEY DEPOSIT (EMD)**

- 16.1 Bid must be accompanied with earnest money (i.e Earnest Money Deposit (EMD) also known as Bid Security) in the form of 'Demand Draft' / 'Banker's Cheque' [in favour of GAIL (India) Limited payable at place mentioned in BDS] or 'Bank Guarantee' strictly as per the format given in form F-2 of the Tender Document. Bidder shall ensure that EMD submitted in the form of 'Bank Guarantee' should have a validity of at least 'two [02] months' beyond the validity of the Bid. EMD submitted in the form of 'Demand Draft' or 'Banker's Cheque' should be valid for three months.
- Bid not accompanied with EMD, or EMD not in requisite format shall be liable for rejection. The EMD shall be submitted in Indian Rupees only.
- 16.2 The bidder can also submit the EMD through online banking transaction i.e. IMPS/NEFT/RTGS etc. For this purpose, the details of GAIL's Bank Account are mentioned under BDS. While remitting, the bidder must indicate EMD and tender/E-tender no. under remarks. Bidders shall be required to submit/ upload the successful transaction details along-with their bid/e-bid in addition to forwarding the details to dealing officer through email/letter with tender reference number immediately after remittance of EMD. In absence of submitting/ uploading the remittance details, the bid is likely to be considered as bid not accompanied with EMD. Further, in case of the online transaction, submission of EMD in original is not applicable.
- 16.3 GAIL shall not be liable to pay any documentation charges, Bank charges, commission, interest etc. on the amount of EMD. In case EMD is in the form of a 'Bank Guarantee', the same shall be from any Indian scheduled Bank or a branch of an International Bank situated in India and registered with 'Reserve Bank of India' as Scheduled Foreign Bank. However, in case of 'Bank Guarantee' from Banks other than the Nationalized Indian Banks, the Bank must be commercial Bank having net worth in excess of Rs. 100 Crores [Rupees One Hundred Crores] and a declaration to this effect should be made by such commercial Bank either in the 'Bank Guarantee' itself or separately on its letterhead.



- 16.4 Any Bid not secured in accordance with “ITB: Clause-16.1, 16.2 & Clause-16.3” may be rejected by GAIL as non-responsive.
- 16.5 Unsuccessful Bidder’s EMD will be discharged/ returned as promptly as possible, but not later than ‘thirty [30] days’ after finalization of tendering process.
- 16.6 The successful Bidder’s EMD will be discharged upon the Bidder’s acknowledging the ‘Award’ and signing the ‘Agreement’ (if applicable) and furnishing the ‘Contract Performance Security (CPS)/ Security Deposit’ pursuant to clause no. 38 of ITB.
- 16.7 Notwithstanding anything contained herein, the EMD may also be forfeited in any of the following cases:
- (a) If a Bidder withdraws his Bid during the ‘Period of Bid Validity’
  - (b) If a Bidder has indulged in corrupt/fraudulent /collusive/coercive practice
  - (c) If the Bidder modifies Bid during the period of bid validity (after Due Date and Time for Bid Submission).
  - (d) Violates any other condition, mentioned elsewhere in the Tender Document, which may lead to forfeiture of EMD.
  - (e) In the case of a successful Bidder, if the Bidder fails to:
    - (i) acknowledge receipt of the “Notification of Award” / Fax of Acceptance[FOA]”,
    - (ii) furnish “Contract Performance Security / Security Deposit”, in accordance with “ITB: Clause-38”
    - (iii) accept ‘arithmetical corrections’ as per provision of the clause 30 of ITB.
- 16.8 In case EMD is in the form of ‘Bank Guarantee’ the same must indicate the Tender Document No. and the name of Tender Document for which the Bidder is quoting. This is essential to have proper correlation at a later date.
- 16.9 MSEs (Micro & Small Enterprises) are exempted from submission of EMD in accordance with the provisions of PPP-2012 and Clause 40 of ITB. However, Traders/Dealers/ Distributors /Stockiest /Wholesaler are not entitled for exemption of EMD. The Government Departments/PSUs/ Startups are exempted from the payment of EMD.
- 16.10 In case of forfeiture of EMD/ Bid Security, the forfeited amount will be considered inclusive of tax and tax invoice will be issued by GAIL. The forfeiture amount will be subject to final decision of GAIL based on other terms and conditions of order.
- 16.11 EMD/Bid Bond will not be accepted in case the same has reference of ‘remitter’/’financer’ other than bidder on the aforementioned financial instrument of EMD/ Bid Bond submitted by the bidder and bid of such bidder will be summarily rejected.

## **17 PRE-BID MEETING**

- 17.1 The Bidder(s) or his designated representative are invited to attend a “Pre-Bid Meeting” which will be held at Date, Time & Venue as specified in IFB. It is expected that a Bidder shall not depute more than 02 representatives for the meeting.
- 17.2 Purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage and give hands-on demonstration of e-tendering process. The Bidder must submit their queries / clarifications to GAIL in the format “F-11”, as mentioned at clause no. 8.0 of ITB.
- 17.3 The text of the questions raised and the responses that may become necessary as a result of the Pre-Bid Meeting, will be prepared in the form of Addendum / Corrigendum /Clarification to the Tender Document and will be uploaded on websites of GAIL, Govt. and GAIL’s e-Portal (in case of e-tendering) and not through the minutes of the Pre-Bid Meeting.
- 17.4 Non-attendance of the Pre-Bid Meeting will not be a cause for disqualification of Bidder.



## **18 FORMAT AND SIGNING OF BID**

- 18.1 The original and all copies of the Bid shall be typed or written in indelible ink [in the case of copies, photocopies are also acceptable] and shall be signed by a person(s) duly authorized to sign on behalf of the Bidder (as per POA). The name and position held by person signing, must be typed or printed below the signature. All pages of the Bid except for unamended printed literature where entry(s) or amendment(s) has been made, shall be initialed by the person or persons signing the Bid.
- 18.2 The Bid shall contain no alterations, omissions, or additions, unless such corrections are initialed by the person(s) signing the Bid.
- 18.3 Digitally signed documents to be uploaded as detailed in addendum to ITB.

## **19 ZERO DEVIATION AND REJECTION CRITERIA**

- 19.1 **ZERO DEVIATION:** Deviation to terms and conditions of Tender Document may lead to rejection of Bid. GAIL will accept Bid based on terms & conditions of Tender Document only. Bidder may note, GAIL will determine the substantial responsiveness of each bid to the Tender Document pursuant to provision contained in clause 29 of ITB. For purpose of this, a substantially responsive bid is one which conforms to all terms and conditions of the Tender Document without deviation(s) or exception n(s). GAIL's determination of a Bid's responsiveness is based on the content of the Bid itself without recourse to extrinsic evidence. GAIL reserves the right to raise technical and/or commercial query(ies) to the Bidder(s), if required. The response(s) to the same shall be in writing, and no change in the price(s) or substance of the Bid shall be sought, offered or permitted. The substance of the Bid includes but not limited to prices, completion/delivery period, scope, technical specifications etc. Bidder is requested not to take any deviation(s)/exception(s) to the terms & conditions of Tender Document, and submit all requisite documents as mentioned in this Tender Document, failing which their Bid will be liable for rejection. If a Bidder does not reply to the queries in the permitted time frame then its Bid shall be evaluated based on the documents available in the Bid.
- 19.2 **REJECTION CRITERIA:** Notwithstanding the above, deviation to the following clauses of Tender Document shall lead to summarily rejection of Bid:
- (a) Firm Price
  - (b) Earnest Money Deposit
  - (c) Specifications
  - (d) Schedule of Rates / Price Schedule / Price Basis
  - (e) Delivery Period / Period of Contract/ Completion schedule
  - (f) Period of Validity of Bid
  - (g) Price Reduction Schedule
  - (h) Contract Performance Security / Security Deposit
  - (i) Warranty/ Guarantee
  - (j) Arbitration / Resolution of Dispute/Jurisdiction of Court
  - (k) Force Majeure & Applicable Laws
  - (l) Integrity Pact
  - (m) Any other condition specifically mentioned in the Tender Document elsewhere that non-compliance of the clause lead to rejection of Bid

Note: Further, it is once again reminded not to mention any condition in the Bid which is contradictory to the terms & conditions of Tender Document.

## **20 E-PAYMENT**



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GAIL (India) Limited has initiated payments electronically to Suppliers / Contractors electronically through '**e-banking**'.

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**[D] – SUBMISSION OF BIDS**

**21 SUBMISSION, SEALING AND MARKING OF BID**

- 21.1 Bid shall be submitted through e-tender mode in the manner specified in Tender Document. No Manual/ Hard Copy (Original) Bid shall be acceptable.
- 21.2 EMD /physical documents shall be addressed to the owner at address specified in IFB.
- 21.3 Bids submitted under the name of AGENT/ CONSULTANT/ REPRESENTATIVE /RETAINER/ ASSOCIATE etc. on behalf of a Bidder /Affiliate shall not be accepted.

**22 DEADLINE FOR SUBMISSION OF BID**

- 22.1 the Bid must be uploaded on GAIL's e-Portal not later than the Bid Due Date & Time specified in IFB of the Tender Documents.
- 22.2 GAIL may, in exceptional circumstances and at its discretion, extend the Due Date & Time for Bid submission through a Corrigendum as per clause no. 8.0 and/or 9.0 of ITB. In that case all rights and obligations of GAIL and the Bidder, previously subject to the original Due Date & Time will thereafter be subject to the Due Date & Time as extended. Such Corrigendum for extension of Due Date & Time of Bid submission will be uploaded on websites of GAIL and Govt. and GAIL's e-Portal.

**23 LATE BID**

- 23.1 Any Bid received after the Bid Due Date & Time of tenders will be treated as late bids. However, e-tendering system of GAIL shall close immediately after the Due Date & Time of Bid submission and no bids can be submitted thereafter. In case the EMD /physical documents have been received but the Bid is not submitted by the bidder in the e-Portal, such EMD/ physical documents shall be returned immediately.
- 23.2 EMD /physical documents received to address other than one specifically stipulated in the Tender Document will not be considered for evaluation/opening/award if not received to the specified destination within stipulated date & time.

**24 MODIFICATION AND WITHDRAWAL OF BID**

- 24.1 The Bidder may withdraw or modify its Bid after bid submission but before the Bid Due Date & Time. No bid shall be modified/ withdrawn after the Bid Due Date & Time.
- 24.3 Any withdrawal/ modification/substitution of Bid in the interval between the Bid Due Date & Time and the expiration of the period of bid validity specified by the Bidder in their Bid shall result in the Bidder's forfeiture of EMD pursuant to clause 16 of ITB and rejection of Bid.
- 24.4 The latest Bid submitted by the Bidder before Bid Due Date & Time shall be considered for evaluation and all other Bid(s) shall be considered to be unconditionally withdrawn.
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**[E] BID OPENING AND EVALUATION:**

**25 PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

GAIL reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids, at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder(s) or any obligations to inform the affected Bidder(s) of the ground for GAIL's action. However, Bidder if so desire may seek the reason (in writing) for rejection of their Bid to which GAIL shall respond quickly.

**26 BID OPENING**

**26.1 Unpriced Bid Opening:**

GAIL will open bids, in the presence of Bidders' designated representatives who choose to attend, at date, time and location stipulated in the BDS. The Bidders' representatives, who are present shall sign a Bid Opening Register evidencing their attendance.

**26.2 Priced Bid Opening:**

26.2.1 GAIL will open the price bids of those Bidders who meet the qualification requirement and whose bid is determined to be technically and commercially responsive. Bidders selected for opening of their price bid shall be informed about the date & time of price bid opening. Bidders may depute their authorized representative to witness the price bid opening. The Bidders' representatives, who are present shall sign a Price Bid Opening Register evidencing their attendance and may be required to be present even on a short notice.

26.2.2 The price bids of those Bidders who were not found to be techno-commercially responsive shall not be opened.

26.3 In case of Bids invited under the Single Bid System, Bid shall be opened on the Due Date & Time of Bid Opening as specified in the Tender Document.

**27 CONFIDENTIALITY**

Information relating to the examination, clarification, evaluation and comparison of Bids, and recommendations for the award of a Contract, shall not be disclosed to Bidder(s) or any other persons not officially concerned with such process.

**28 CONTACTING THE PURCHASER**

28.1 From the time of Bid opening to the time of placement of order, if any Bidder wishes to contact the Purchaser on any matter related to the Bid, it should do so in writing.

28.2 Any effort by a Bidder to influence the Purchaser in the Purchaser's processing of Bid(s) including 'Bid Evaluation', 'Bid Comparison', or 'Contract Award' decisions may result in the rejection of the Bidder's Bid and action shall be initiated as per the GAIL's procedure in this regard.

**29 EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS**

29.1 The purchaser's determination of a bid's responsiveness is based on the content of the bid only. Prior to the detailed evaluation of Bids, the Purchaser will determine whether each Bid:-

- (a) meets the "Bid Evaluation Criteria" of the Tender Document;
- (b) has been properly signed;
- (c) is accompanied by the required EMD;
- (d) is substantially responsive to the requirements of the Tender Document; and
- (e) provides any clarification and/or substantiation that the Purchaser may require to determine responsiveness pursuant to "ITB: Clause-29.2"



- 29.2 A substantially responsive Bid is one which conforms to all the terms & conditions, specifications etc. of the Tender Document without any material deviation or reservation or omission, for this purpose Purchaser defines the foregoing terms below:-
- a) "Deviation" is departure from the requirement specified in the Tender Documents.
  - b) "Reservation" is the setting of limiting condition(s) or withholding from complete acceptance of the requirement in the Tender Documents.
  - c) "Omission" is the failure to submit part or all of the information or documentation required in the Tender Document.
- 29.3 A material deviation, reservation or omission is one that,
- a) If accepted would,
    - i) affect in any substantial way the scope, quality or performance of the job as specified in Tender Document.
    - ii) limit, in any substantial way, inconsistent with the Tender Document, the Purchaser's rights or the Bidder's obligation under the proposed Contract.
  - b) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 29.4 The Purchaser shall examine all aspects of the Bid to confirm that all requirements have been met without any material deviation, reservation or omission.
- 29.5 If a Bid is not substantially responsive, it may be rejected by the Purchaser and may not subsequently be made responsive by correction or withdrawal of the of material deviation, reservation or omission.

### **30 CORRECTION OF ERRORS**

- 30.1 Bids determined to be substantially responsive will be checked by the Purchaser for any arithmetic errors. Errors in Price Schedule/SOR will be corrected by the Purchaser as follows:
- (i) When there is a difference between the rates in figures and words, the rate which corresponds to the amount worked out by the Bidder (i.e. by multiplying the quantity and rate) shall be taken as correct.
  - (ii) When the rate quoted by the Bidder in figures and words tallies but the amount is incorrect, the rate quoted by the contractor shall be taken as correct and not the amount. The amount shall be re-calculated/ corrected accordingly.
  - (iii) When it is not possible to ascertain the correct rate, in the manner prescribed above, the rate as quoted in words shall be adopted and the amount worked out, for comparison purposes
- 30.2 The amount stated in the Bid will be adjusted by the Purchaser in accordance with the above procedure for the correction of errors. If the Bidder does not accept the corrected amount of Bid, its Bid will be rejected, and the EMD shall be forfeited.

### **31 CONVERSION TO SINGLE CURRENCY FOR COMPARISON OF BIDS**

Not Applicable. All bids submitted must be in the currency specified at clause 14 of ITB.

### **32 EVALUATION AND COMPARISON OF BIDS**

Bid shall be evaluated as per Evaluation Methodology mentioned in Section-II of Tender Document.

In case of a tie at the lowest bid (L1) position between two or more startup/non-startup bidders, the order/LOA will be placed on the bidder who has higher/ highest turnover in last audited financial year.

In case there is a tie at the lowest bid (L1) position between only startup bidders and none of them has past turnover, the order/LOA will be placed on the startup who is registered earlier with Department of Industrial Promotion and Policy.



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**33 QUANTITY VARIATION**

- 33.1 Where nature of items is such that the items cannot be supplied in exact quantity of the Purchase Order as in case of cables/ steel/ chemicals etc., quantity tolerance upto  $\pm 5\%$  may be allowed, if there is no specific quantity variation/tolerance criteria in SCC. For such tolerance, separate amendment to Purchase Order would not be necessary.
- 33.2 The Purchaser reserves the right to delete the requirement of any one or more items of Tender Document without assigning any reason.

**34 PURCHASE PREFERENCE**

Purchase preference to Central Government Public Sector Undertaking, Micro & Small Enterprises (MSEs) and Domestically Manufactured Electronic Products / Telecom Products etc. shall be allowed as per Government instructions in vogue, as applicable from time to time.

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### **[F] – AWARD OF CONTRACT**

#### **35 AWARD**

Subject to “ITB: Clause-29.0”, GAIL will place order to the successful Bidder whose Bid has been determined to be substantially responsive and has been determined as the lowest provided that Bidder, is determined to be qualified to satisfactorily perform the Contract.

***“GAIL intent to place the order/contract directly on the address from where Goods are produced/dispatched OR Services are rendered. In case, bidder wants order/ contract at some other address or supply of Goods/ Services from multiple locations, bidder is required to provide in their bid, the address on which order is to be placed”.***

GAIL will place the Purchase Order/Contract directly on the successful bidder from whom the bid has been received & evaluated and will not place order on other entities such as subsidiary, business associate or partner, dealer/distributor etc. of the Bidder.

#### **36 NOTIFICATION OF AWARD / FAX OF ACCEPTANCE [FOA]**

- 36.1 Prior to the expiry of ‘Period of Bid Validity’, Notification of Award for acceptance of the Bid will be intimated to the successful Bidder by GAIL either by ~~Fax~~ /E - mail /Letter or like means defined as the “Fax of Acceptance (FOA)”. The Contract shall enter into force on the date of FOA and the same shall be binding on GAIL and successful Bidder (i.e. Supplier/Seller). ~~The~~ Notification of Award/FOA will constitute the formation of a Contract. The detailed Purchase Order /Contract shall be issued thereafter incorporating terms & conditions of Tender Document, Corrigendum, Clarification(s), Bid and agreed variation(s)/acceptable deviation(s), if any. GAIL may choose to issue Notification of Award in form of detailed Purchase Order without issuing FOA and in such case the Contract shall enter into force on the date of detailed Purchase Order only.
- 36.2 Contract/ Delivery/Completion Period shall commence from the date of Notification of Award/FOA or as mentioned therein.
- 36.3 Upon the successful Bidder’s / Supplier’s furnishing of ‘Contract Performance Security / Security Deposit’, pursuant to “ITB: Clause-38”, GAIL will promptly discharge his EMD, pursuant to “ITB: Clause-16”.
- 36.4 The order value is subject to Price Reduction Schedule (PRS) clause.

#### **37.0 DISPATCH SCHEDULE**

- 37.1 If Purchase Order issued based on FOT (Free on Truck) / FOR (Free on Rail) project site basis, materials shall be delivered at the destination on freight prepaid & door delivery basis and for the cases where order(s) are finalized on Ex-Works basis the transportation will be arranged by supplier(s) / GAIL on 'freight to pay' basis and the freight will be paid at the destination.

Seller shall submit the following details of goods/cargo within 15 days from Notification of Award to the designated authority as per Purchase Order:

- (i) Shipments Schedule
  - (ii) Dimension details of packages
  - (iii) Detailed technical write-up along with Catalogue (if applicable)
  - (iv) Any other document/details, if mentioned in Purchase Order
- 37.2 The consignment should be handed over to transporter with E-way bill, wherever required as per law/act. In case such e-way bill is required to be issued by GAIL, the concerned designated order issuing authority may be contacted in this regard. It will be the responsibility of the supplier to ensure the compliance of the provisions relating to E-Way



bill before dispatch of the consignment and any financial implication arising due to non-compliance in this regard will be to the account of the supplier.

- 37.3 It shall be responsibility of the seller to send intimation immediately on dispatch of the material so that necessary arrangements can be made at site. Delays on account of the same shall solely be attributable to the Supplier.
- 37.4 Wherever, part shipment is allowed (refer BDS), the Supplier is allowed to make part shipment. However, until specified elsewhere in Tender Document, Payment for such part supplied Goods shall be made after supply of complete quantity of respective item.

**38 CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT -[CPS/SD]**

- 38.1 Within 30 days of the receipt of the notification of award/ FOA from GAIL, the successful Bidder shall furnish the Contract Performance Security/Security Deposit (CPS) in accordance with of General Conditions of the Contract. The CPS shall be in the form of either Banker's Cheque or Demand Draft or Bank Guarantee or Letter of Credit and shall be in the currency of the Contract. However, CPS shall not be applicable in cases wherein the individual order value as specified in Notification of Award is less than INR 5 Lakh (exclusive GST).
- 38.2 The CPS shall be for an amount as specified in BDS towards faithful performance of the contractual obligations and performance of equipment/material. For the purpose of CPS, Contract/Order Value shall be exclusive of **GST (CGST & SGST/UTGST or IGST)**. Bank Guarantee towards CPS shall be from any Indian scheduled bank or a branch of an International bank situated in India and registered with Reserve bank of India as scheduled foreign bank. However, in case of bank guarantees from banks other than the Nationalized Indian banks, the bank must be a commercial bank having net worth in excess of Rs 100 crores and a declaration to this effect should be made by such commercial bank either in the Bank Guarantee itself or separately on its letterhead. This bank guarantee shall be valid for a period as three months beyond the Warranty/ Guarantee Period specified in Tender Document.
- 38.3 Failure of the successful Bidder to comply with the requirements of this article shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD.
- 38.4 Further, Ministry of Finance (MOF) Department of financial service has issued direction for submission of Bank Guarantee through online vide letter ref number F.No.7/112/2011-BOA dated 17<sup>th</sup> July 2012. The successful bidder can submit CPS online through issuing bank to GAIL directly as per the above direction including its revisions, if any. In such cases confirmation will not be sought from issuing banker by GAIL.
- 38.5 The successful bidder can also submit the SD/CPBG through online banking transaction i.e. IMPS/NEFT/RTGS/SWIFT etc. For this purpose, the details of GAIL's Bank Account is mentioned in BDS. Further, in case a successful Bidder is willing to furnish SD/CPS through SWIFT, the details may be obtained from Purchase Officer immediately after receipt of FOA.  
While remitting such online transaction, the bidder must indicate "Security Deposit/ Contract Performance Guarantee against FOA/DLOA/PO no. \_\_\_\_\_ (contractor/ vendor to specify the FOA/DLOA/PO No.)" under remarks column of such transaction on respective bank portal. The contractor/vendor shall be required to submit the successful transaction details to the dealing officer immediately through email/letter and necessarily within 30 days from the date of Fax of Acceptance.
- 38.6 In case of forfeiture of Contract Performance Security/ Security Deposit in terms of GCC, the forfeited amount will be considered inclusive of tax and tax invoice will be issued by GAIL. The forfeiture amount will be subject to final decision of GAIL based on other terms and conditions of order.



38.7 CPS/Security Deposit will not be accepted in case the same has reference of 'remitter'/'financer' other than bidder on the aforementioned financial instrument of CPS/Security Deposit submitted by the Supplier.

**39 PROCEDURE FOR ACTION IN CASE CORRUPT/ FRAUDULENT /COLLUSIVE/ COERCIVE PRACTICES**

39.1 Procedure for action in case Corrupt/ Fraudulent/Collusive/Coercive Practices is enclosed at Annexure-I.

39.2 The Fraud Prevision Policy document is available on GAIL's website ([www.gailonline.com](http://www.gailonline.com)).

39.3 Name and contact details of nodal officer are as under:

**Shri Rajeev Mehrotra**

**Tel: 0120-2515353/54/55 Extn. 2104**

**e-Mail: [rmehrotra@gail.co.in](mailto:rmehrotra@gail.co.in)**

**39.4 NON-APPLICABILITY OF ARBITRATION CLAUSE IN CASE OF BANNING OF VENDORS/ SUPPLIERS / CONTRACTORS/BIDDERS/ CONSULTANTS INDULGED IN FRAUDULENT/ COERCIVE PRACTICES**

Notwithstanding anything contained contrary in GCC or elsewhere in the Purchase Order, in case it is found that the Bidder/ Supplier indulged in fraudulent/ coercive practices at the time of bidding, during execution of the Contract and/or on other grounds as mentioned in GAIL's "Procedure for action in case Corrupt/ Fraudulent/ Collusive/Coercive Practices" (Annexure-I), the Bidder/Supplier shall be banned (in terms of aforesaid procedure) from the date of issuance of such order by GAIL (India) Ltd., to such Bidder/Supplier.

The Bidder /Supplier / understands and agrees that in such cases where Bidder /Supplier has been banned (in terms of aforesaid procedure) from the date of issuance of such order by GAIL, such decision of GAIL shall be final and binding on the Bidder /Supplier and the 'Arbitration Clause' mentioned in the GCC or elsewhere in the Purchase Order shall not be applicable for any consequential issue /dispute arising in the matter.

**40 PUBLIC PROCUREMENT POLICY FOR MICRO AND SMALL ENTERPRISES (MSE)**

40.1 Following provision has been incorporated for Micro and Small Enterprises (MSE), in line with notification of Government of India, vide Gazette of India No. 503 dated 26.03.2012 proclaiming the Public Procurement Policy on procurement of goods and services from MSEs.

- i) Issue of tender document to MSEs free of cost.
- ii) Exemption to MSEs from payment of EMD.
- iii) In Tender, participating Micro and Small Enterprises quoting price within price band of L1 + 15% shall also be allowed to supply a portion of requirement by bringing down their prices to L1 price in a situation where L1 price is from someone other than a micro and small enterprises and such micro and small enterprises shall be allowed to supply upto 25% of the total tendered value. In case of more than one such Micro and Small Enterprises, the supply shall be shared proportionately (to tendered quantity). Further, out of above 25%, 4% shall be reserved for MSEs owned by SC/ST entrepreneurs. Further, 3% shall be reserved for MSEs owned by women within above 25% reservation. The respective quota(s) shall be transferred to other MSEs in case of non-availability of MSEs owned by SC/ST entrepreneurs / MSEs owned by Women.

The quoted prices against various items shall remain valid in case of splitting of quantities of the items above.



In case tendered item is non-splitable or non-dividable (specified in Bid Data Sheet), MSE quoting price within price band L1 (other than MSE) + 15% , may be awarded for full/ complete supply of total tendered value subject to matching of L1 price.

40.2 The MSE(s) owned by SC/ST Entrepreneurs shall mean:-

- a) In case of proprietary MSE, Proprietor(s) shall be SC/ST.
- b) In case of partnership MSE, the SC/ST partners shall be holding atleast 51% share in the unit
- c) In case of private Limited Companies, at least 51% share is held by SC/ST. If the MSE is owned by SC/ST Entrepreneurs, the bidder shall furnish appropriate documentary evidence in this regard.

The MSE(s) owned by Women shall mean:-

- a) In case of proprietary MSE, Proprietor(s) shall be Women.
- b) In case of partnership MSE, the Women partners shall be holding atleast 51% share in the unit
- c) In case of private Limited Companies, at least 51% share is held by Women. If the MSE is owned by Women Entrepreneurs, the bidder shall furnish appropriate documentary evidence in this regard.

40.3 In case Bidder is a Micro or Small Enterprise under the Micro, Small and Medium Enterprises Development Act, 2006, the Bidder shall submit the following :

- a. Ministry of MSME vide Gazette Notification No. CG-DL-E-26062020-220191 dated 26.06.2020 had notified certain criteria for classifying the Enterprises as Micro, Small and Medium Enterprises, and specified form and procedure for filing the Memorandum (Udyam Registration) w.e.f. 01.07.2020 (for complete details of Policy, refer website of Ministry of MSME, i.e. <https://msme.gov.in/>). Accordingly, Micro and Small Enterprises (MSEs) shall be required to submit Udyam Registration Certificate for availing benefits under Public Procurement Policy for MSEs-2012. An Enterprise registered prior to 30.06.2020 and who are not re-registered with Udyam Registration, shall continue to be valid for a period up to 31.03.2021. Such Enterprise shall submit EM Part-II or Udyog Aadhaar Memorandum (UAM) for availing the benefits of PPP-2012.
- b. If the MSE is owned by SC/ST Entrepreneurs, the Bidder shall furnish appropriate documentary evidence in this regard.

The above document(s) submitted by the Bidder shall be duly certified by the Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's company/firm) and notary public with legible stamp.

If the bidder does not provide the above confirmation or appropriate document or any evidence, then it will be presumed that they do not qualify for any preference admissible in the Public Procurement Policy (PPP) 2012.

The Public Procurement Policy for MSEs is meant for procurement of only goods produced & Services rendered by MSEs. The benefit of policy are not extended to the traders/dealers/ Distributors/Stockiest/Wholesalers.

40.4 If against an order placed by GAIL, successful Bidder(s) (other than Micro/Small Enterprise) is procuring material/services from their sub-vendor who is a Micro or Small Enterprise registered with District Industries Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of Micro, Small and Medium Enterprises with prior consent in writing from GAIL, the details like Name, Registration No., Address, Contact No. details of





material & value of procurement made, etc. of such Enterprises shall be furnished by the successful Bidder at the time of submission of invoice/Bill.

- 40.5 Further, MSEs who are availing the benefits of the Public Procurement Policy (PPP) 2012 get themselves registered with MSME Data Bank being operated by NSIC, under SME Division, M/o MSME, in order to create proper data base of MSEs which are making supplies to CPSUs.
- 40.6 NSIC has initiated a scheme of “Consortia and Tender Marketing Scheme” under which they are assisting the Micro & Small enterprises to market their products and services through tender participation on behalf of the individual unit or through consortia.

Accordingly, if the MSEs or the consortia, on whose behalf the bid is submitted by NSIC, is meeting the BEC and other terms and conditions of tender their bid will be considered for further evaluation.

Further, in such cases a declaration is to be submitted by MSE/ consortia on their letter head (s) that all the terms and conditions of tender document shall be acceptable to them.

- 40.7 It may be noted that Government of India has implemented Trade Receivable Discounting System (TreDS) to address challenges faced by MSMEs in delayed payments (after receipt/acceptance of Material/Services) from Government buyers leading to shortfall of Working Capital. TreDS is an online electronic institutional mechanism for facilitating the financing of trade receivables of MSMEs through multiple financiers. GAIL is already registered on the following TreDS platform:

- M/s Receivable Exchange of India (RXIL), Mumbai
- M/s Mynd Solutions Private Limited (Mynd), New Delhi
- M/s A. TREDS (Invoicemart), Mumbai

MSME Bidders are required to register on the TreDS platform. The MSME vendors can avail the TReDS facility, if they want to.

#### **41 PACKING INSTRUCTIONS**

- 41.1 Packing shall be strong and sturdy such that it can withstand loading/unloading & pushing by mechanical devices. All packaging shall be done in such a manner as to reduce volume and weight as much as possible without jeopardizing the safety of the material. All packing materials shall be new.
- 41.2 Fragile articles should have special packing materials depending on type of materials.
- 41.3 All soft and delicate surfaces on equipment/material should be carefully protected / painted with suitable coating and wrapped to prevent rusting and damage. All mechanical and electrical equipment and other heavy articles should be securely fastened to the bottom of the case, to avoid damage.
- 41.4 Attachments and spare parts of equipment and all small pieces shall be packed separately in wooden cases with adequate protection inside the case and sent along with main equipment. Each item shall be tagged so as to identify it with the main equipment and part number and reference number shall be indicated.
- 41.5 All protrusions shall be suitably protected and openings shall be blocked by wooden/steel covers as may be required.
- 41.6 Detailed case wise packing list in water proof envelope shall be inserted in each package together with equipment/material. One copy of ‘Detailed Packing List’ shall be fastened outside of the package in waterproof envelope and covered by metal cover.
- 41.7 Each package shall be marked on three sides with proper paints/indelible waterproof ink as follows:

PURCHASER:

DESTINATION:

Purchase Order No.....



Net Wt..... Kgs,  
 Gross Wt..... Kgs.  
 Dimensions.....X.....X.....CM.  
 Package No. (Sl. No. of total packages).....  
 Seller's Name.....

- 41.8 Permits are to be obtained separately for entry/use of vehicles/trailers etc. inside the plant. The following requirements are to be met to obtain vehicle permit:-
- Vehicle/Equipment etc. should be brought to site in good conditions.
  - Valid Road Tax Certificate, fitness certificate and insurance policy from Competent Authority
  - Valid operating/driving license of driver/operator
  - Any other requirement mentioned elsewhere in Tender Document

#### **42 VENDOR PERFORMANCE EVALUATION**

The procedure for evaluation of performance of Supplier containing provisions for putting a Bidder / Supplier on suspension and/or holiday list (as the case may be) is enclosed as Annexure II to ITB herewith.

#### **43 MENTIONING OF PAN NO. IN INVOICE/BILL**

As per CBDT Notification No. 95/2015 dated 30.12.2015, mentioning of PAN no. is mandatory for transactions related to procurement of goods / services/ exceeding Rs. 2 Lacs per transaction or as amended from time to time.-

Accordingly, Supplier should mention their PAN no. in their invoice/ bill for any transaction exceeding Rs. 2 lakhs. As provided in the notification, in case Supplier do not have PAN no., they have to submit declaration in Form 60 along with invoice/ bill for each transaction.

Payment of Supplier shall be processed only after fulfilment of above requirement.

#### **44 DISPUTE RESOLUTION MECHANISM**

##### **44.1 QUARTERLY CLOSURE OF THE CONTRACT AND SAMADHAN MECHANISM**

During execution of orders, various issues may arise. In order to timely detect and to address the contractual issue(s) during the execution of contracts, GAIL has introduced a mechanism of Quarterly Closure of the contract, under which all the related issues /disputes will be monitored and addressed on quarterly basis for resolution. Vendor/ Supplier/ Contractor/Consultant (hereinafter referred 'Vendor') should first refer any issues/disputes to Engineer-in-Charge (EIC) for LOA/contracts/ Dealing C&P Executive for Purchase Orders and co-operate them for smooth execution of the contract and to timely address the issues, if any. For applicability of 'Quarterly Closure', please refer BDS.

In case issue is not resolved by above, Supplier may submit their issue(s) to Vendor Grievance Portal "Samadhan", which will be addressed by GAIL within 15 days. The Samadhi Portal is available at <https://gailebank.gail.co.in/grievance/welcome.aspx>.

Accordingly, the methodology for resolution of issue(s)/ grievance (s) of Vendor shall be as under:

- Any issue should be first referred to EIC (for contracts)/ Dealing C&P Executive (for Purchase Orders).
- In case issue is not resolved, Vendor may submit their issue/ grievance through online Vendor Grievance Portal-"Samadhan".



- (iii) In case, Vendor is not satisfied, there is a provision of escalation of issue to higher authority in GAIL. -This option is available two times to vendor.
- (iv) Further, issue(s) can only be submitted upto 1 month after closure of respective Order/ LOA/Contract.
- (v) Vendor should refer their issue/ grievance through above mode only. Issue/ grievance received through any other mode shall not be entertained.

#### 44.2 **CONCILIATION AND ARBITRATION**

##### **1.0 CONCILIATION**

GAIL (India) Limited has framed the Conciliation Rules 2010 in conformity with Part – III of the Arbitration and Conciliation Act 1996 as amended from time to time for speedier, cost effective and amicable settlement of disputes through conciliation. All issue(s)/dispute(s) arising under the Contract, which cannot be mutually resolved within a reasonable time [as per clause no. 44.1](#), may be referred for conciliation in accordance with GAIL Conciliation Rules 2010 as amended from time to time A copy of the said rules have been made available on GAIL's web site i.e. [www.gailonline.com](http://www.gailonline.com).

Where invitation for Conciliation has been accepted by the other party, the Parties shall attempt to settle such dispute(s) amicably under Part-III of the Arbitration and Conciliation Act, 1996 and GAIL (India) Limited Conciliation Rules, 2010. It would be only after exhausting the option of Conciliation as an Alternate Dispute Resolution Mechanism that the Parties hereto shall invoke Arbitration Clause. For the purpose of this clause, the option of 'Conciliation' shall be deemed to have been exhausted, even in case of rejection of 'Conciliation' by any of the Parties.

##### **2.0 ARBITRATION**

All issue(s)/dispute(s) excluding the matters that have been specified as excepted matters and listed at clause no. 2.6 and which cannot be resolved through Conciliation, such issue(s)/dispute(s) shall be referred to arbitration for adjudication by Sole Arbitrator.

The party invoking the Arbitration shall have the option to either opt for Ad-hoc Arbitration as provided at Clause 2.1 below or Institutionalized Arbitration as provided at Clause 2.2 below, the remaining clauses from 2.3 to 2.7 shall apply to both Ad-hoc and Institutional Arbitration:-

2.1 On invocation of the Arbitration clause by either party, GAIL shall suggest a panel of three independent and distinguished persons (Retd Supreme Court & High Court Judges only) to the other party from the Panel of Arbitrators maintained by 'Delhi International Arbitration Centre (DIAC) to select any one among them to act as the Sole Arbitrator. In the event of failure of the other party to select the Sole Arbitrator within 30 days from the receipt of the communication from GAIL suggesting the panel of arbitrators, the right of selection of the sole arbitrator by the other party shall stand forfeited and GAIL shall appoint the Sole Arbitrator from the suggested panel of three Arbitrators for adjudication of dispute(s). The decision of GAIL on the appointment of the sole arbitrator shall be final and binding on the other party. The fees payable to Sole Arbitrator shall be governed by the fee Schedule of 'Delhi International Arbitration Centre'.

OR

2.2 If a dispute arises out of or in connection with this contract, the party invoking the Arbitration shall submit that dispute to any one of the Arbitral Institutions i.e ICADR/ICA/DIAC/SFCA and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole



Arbitrator who shall necessarily be a Retd Supreme Court/High Court Judge to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to a specific Arbitral institution for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.

- 2.3 The cost of arbitration proceedings shall be shared equally by the parties.
- 2.4 The Arbitration proceedings shall be in English language and the seat, venue and place of Arbitration shall be New Delhi, India only.
- 2.5 Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matter relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at New Delhi.
- 2.6 List of Excepted matters:
- Dispute(s)/issue(s) involving claims below Rs 25 lakhs and above Rs 25 crores.
  - Dispute(s)/issue(s) relating to indulgence of Contractor/Vendor/Bidder in corrupt/fraudulent/collusive/coercive practices and/or the same is under investigation by CBI or Vigilance or any other investigating agency or Government.
  - Dispute(s)/issue(s) wherein the decision of Engineer-In-Charge/owner/GAIL has been made final and binding in terms of the Contract.
- 2.7. Disputes involving claims below Rs 25 Lakhs and above Rs. 25 crores:- Parties mutually agree that dispute(s)/issue(s) involving claims below Rs 25 Lakhs and above Rs 25 crores shall not be subject matter of Arbitration and are subject to the exclusive jurisdiction of the Court(s) situated at New Delhi.

### 3. GOVERNING LAW AND JURISDICTION:

The Contract shall be governed by and construed in accordance with the laws in force in India. The Parties hereby submit to the exclusive jurisdiction of the Courts situated at New Delhi for adjudication of disputes, injunctive reliefs, actions and proceedings, if any, arising out of this Contract.

## **45 DISPUTES BETWEEN CPSE'S/GOVERNMENT DEPARTMENT'S/ ORGANIZATIONS**

Subject to conciliation as provided above, in the event of any dispute (other than those related to taxation matters) or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs/ Port Trusts) inter-se and also between CPSEs and Government Departments/ Organizations, such dispute or difference shall be taken up by either party for resolution only through AMRCD as mentioned in OPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018.

Any party aggrieved with the decision of the Committee at the First level (tier) may prefer an appeal before the Cabinet Secretary at the Second level (tier) within 15 days from the date of



receipt of decision of the Committee at First level, through its administrative Ministry/Department, whose decision will be final and binding on all concerned.

The above provisions mentioned at clause no.44 & 45 shall supersede provisions relating to Conciliation, Arbitration, Governing Law & Jurisdiction and Disputes between CPSE's/ Government Department's/ Organizations mentioned in General Conditions of Contract (GCC) and elsewhere in tender document.

**46 REPEAT ORDER**

PURCHASER reserves the right, within 6 months of order to place repeat order upto 50% of the original ordered quantity (s) without any change in unit price or other terms and conditions.

**47 PROMOTION OF PAYMENT THROUGH CARDS AND DIGITAL MEANS**

To promote cashless transactions, the onward payments by Contractors to their employees, service providers, sub-contractors and suppliers may be made through Cards and Digital means to the extent possible.

**48 PROVISIONS FOR STARTPUS (AS DEFINED IN GAZETTE NOTIFICATION NO. D.L-33004/99 DATED 18.02.2016 AND 23.05.2017 OF MINISTRY OF COMMERCE AND INDUSTRY AND AS AMENDED FROM TIME TO TIME) (FOR APPLICABILITY REFER BDS)**

As mentioned in Section-II, Prior turnover and prior experience shall not be required for all Startups [whether Micro & Small Enterprises (MSEs) or otherwise] subject to their meeting the quality and technical specifications specified in tender document.

Further, the Startups are also exempted from submission of EMDs.

For availing the relaxation, bidder is required to submit requisite certificate towards Startup enterprise registration issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry and the certificate should be certified by the Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's company/firm) and notary public with legible stamp.

The relaxation of prior experience and prior turnover to Startups [whether Micro & Small Enterprises (MSEs) or otherwise] is to be given to the specific goods/ job domains wherein they are registered for.

Since certificate of DPIIT towards recognition do not specify the goods/ job domain, startups are required to submit the documents for the same including the application submitted to DPIIT.

Further, above document should also be certified by the Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's company/firm) and notary public with legible stamp.

If a Startup [whether Micro & Small Enterprises (MSEs) or otherwise] gets qualified without turnover and experience criteria specified in tender and emerges lowest bidder, the order on such Startup shall be placed for entire tendered quantity.

However, before supplying the total quantity, the startup enterprise shall first demonstrate its performance by supplying 10% of total ordered quantity (rounded off to the next higher digit in terms of Unit of Measurement (UoM), wherever required) and only after successful execution of this quantity the balance 90% quantity will be cleared for supply. In case, the demonstration of performance fails, the entire order will be canceled without any financial implication on either side.



**49 GUIDELINES FOR PROVISION REGARDING INVOICE FOR REDUCED VALUE OR CREDIT NOTE TOWARDS PRS**

PRS is the reduction in the consideration / contract value for the goods / services covered under this contract. In case of delay in supply/ execution of contract, supplier should raise invoice for reduced value as per Price Reduction Schedule Clause (PRS clause). If supplier has raised the invoice for full value, then supplier should issue Credit Note towards the applicable PRS amount with applicable taxes.

In such cases if supplier fails to submit the invoice with reduced value or does not issue credit note as mentioned above, GAIL will release the payment to supplier after giving effect of the PRS clause with corresponding reduction of taxes charged on vendor's invoice, to avoid delay in delivery/collection of material.<sup>22</sup>

In case any financial implication arises on GAIL due to issuance of invoice without reduction in price or non-issuance of Credit Note, the same shall be to the account of supplier. GAIL shall be entitled to deduct / setoff / recover such GST amount (CGST & SGST/UTGST or IGST) together with penalties and interest, if any, against any amounts paid or becomes payable by GAIL in future to the Supplier under this contract or under any other contract.

**50 UNIQUE DOCUMENT IDENTIFICATION NUMBER BY PRACTICING CHARTERED ACCOUNTANTS**

Practicing Chartered Accountants shall generate Unique Document Identification Number (UDIN) for all certificates issued by them as per provisions of Tender Document.

However, UDIN may not be required for documents being attested by Chartered Accountants in terms of provisions of Tender Document.

**51. PROVISION FOR PROCUREMENT FROM A BIDDER WHICH SHARES A LAND BORDER WITH INDIA**

1. Order (Public Procurement No. 1) dated 23.07.2020, Order (Public Procurement No. 2) dated 23.07.2020 and Order (Public Procurement No. 3) dated 24.07.2020, Department of Expenditure, Ministry of Finance, Govt. of India refers. The same are available at website <https://doe.gov.in/procurement-policy-divisions>.
2. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. For details of competent authority refer to Annexure I of Order (Public Procurement No. 1) dated 23.07.2020.

Further the above will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given in the website of the Ministry of External Affairs, Govt. of India

3. "Bidder" (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) for purpose of this provision means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in



any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

4. "Bidder from a country which shares a land border with India" for the purpose of this:
- An entity incorporated, established or registered in such a country; or
  - A subsidiary of an entity incorporated, established or registered in such a country; or
  - An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - An entity whose beneficial owner is situated in such a country; or
  - An Indian (or other) agent of such an entity; or
  - A natural person who is a citizen of such a country; or
  - A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
5. "Beneficial owner" for the purpose of above (4) will be as under:
- In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.  
Explanation—
    - "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
    - "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
  - In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
  - In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  - Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;



- v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
6. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons
7. **SUBMISSION OF CERTIFICATE IN BIDS:**
- Bidder shall submit a certificate in this regard as Form-I.  
If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate rejection of the bid/termination and further action as per "Procedure for Action in case of Corrupt/Fraudulent/ Collusive / Coercive Practices" of tender document.
8. The registration, wherever applicable, should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.
9. **PROVISION TO BE IN WORKS CONTRACTS, INCLUDING TURNKEY CONTRACTS:**
- The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in Para 4 herein above. A Certificate to this regard is to be submitted by bidder is placed at Form-II





**Form-I**

**UNDERTAKING ON LETTERHEAD**

To,

M/s GAIL (INDIA) LIMITED  
\_\_\_\_\_

SUB:

TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder which shares a land border with India, we certify that, bidder M/s \_\_\_\_\_ (*Name of Bidder*) is :

(i) Not from such a country [     ]

(ii) If from such a country, has been registered [     ]

with the Competent Authority.  
(Evidence of valid registration by the  
Competent Authority shall be attached)

*(Bidder is to tick appropriate option ( ✓ or X) above).*

We hereby certify that bidder M/s \_\_\_\_\_ (*Name of Bidder*) fulfills all requirements in this regard and is eligible to be considered against the tender.

Place:

[Signature of Authorized Signatory of Bidder]

Date:

Name:

Designation:

Seal:



**Form-II**

**CERTIFICATE FOR TENDERS FOR WORKS INVOLVING POSSIBILITY OF  
SUB-CONTRACTING**

To,

M/s GAIL (INDIA) LIMITED  
\_\_\_\_\_

SUB:  
TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; we certify that, bidder M/s\_\_\_\_\_ (*Name of Bidder*) is:

- (i) not from such a country [     ]
- (ii) if from such a country, has been registered [     ]  
with the Competent Authority.  
(Evidence of valid registration by the  
Competent Authority shall be attached)

*(Bidder is to tick appropriate option ( ✓ or X) above).*

We further certify that bidder M/s\_\_\_\_\_ (*Name of Bidder*) will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

We hereby certify that bidder M/s\_\_\_\_\_ (*Name of Bidder*) fulfills all requirements in this regard and is eligible to be considered.

Place: [Signature of Authorized Signatory of Bidder]  
Date: Name:  
Designation:  
Seal:



**Appendix-I**

**CERTIFICATE FOR TENDERS FOR TRANSITIONAL CASES**

To,

M/s GAIL (INDIA) LIMITED

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SUB:

TENDER NO:

Dear Sir,

We have read the clause regarding Provisions on Procurement from a Bidder of a country which shares a land border with India; we hereby certify that bidder M/s \_\_\_\_\_ (Name of Bidder) is not from such a country and is eligible to be considered.

Place:

Date:

[Signature of Authorized Signatory of Bidder]

Name:

Designation:

Seal:

|



## Annexure-I

### PROCEDURE FOR ACTION IN CASE CORRUPT/FRAUDULENT/COLLUSIVE/COERCIVE PRACTICES

#### A Definitions:

- A.1 “Corrupt Practice” means the offering, giving, receiving or soliciting, directly or indirectly, anything of value to improperly influence the actions in selection process or in contract execution.  
“Corrupt Practice” also includes any omission for misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided.
- A.2 “Fraudulent Practice” means and include any act or omission committed by a agency or with his connivance or by his agent by misrepresenting/ submitting false documents and/ or false information or concealment of facts or to deceive in order to influence a selection process or during execution of contract/ order.
- A.3 “Collusive Practice amongst bidders (prior to or after bid submission)” means a scheme or arrangement designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- A.4 “Coercive practice” means impairing or harming or threatening to impair or harm directly or indirectly, any agency or its property to influence the improperly actions of an agency, obstruction of any investigation or auditing of a procurement process.
- A.5 “Vendor/Supplier/Contractor/Consultant/Bidder” is herein after referred as “Agency”
- A.6 “Appellate Authority” shall mean Committee of Directors consisting of Director (Finance) and Director (BD) for works centers under Director (Projects). For all other cases committee of Directors shall consist of Director (Finance) & Director (Projects).
- A.7 “Competent Authority” shall mean the authority, who is competent to take final decision for Suspension of business dealing with an Agency/ (ies) and Banning of business dealings with Agency/ (ies) and shall be the “Director” concerned.
- A.8 “Allied Agency” shall mean all the concerns within the sphere of effective influence of banned/ suspended agencies. In determining this, the following factors may be taken into consideration:
- (a) Whether the management is common;
  - (b) Majority interest in the management is held by the partners or directors of banned/ suspended firm.
  - (c) substantial or majority shares are owned by banned/ suspended agency and by virtue of this it has a controlling voice.
- A.9 “Investigating Agency” shall mean any department or unit of GAIL investigating into the conduct of Agency/ party and shall include the Vigilance Department of the GAIL, Central Bureau of Investigation, State Police or any other agency set up by the Central or state government having power to investigate.

#### B Actions against bidder(s) indulging in corrupt /fraudulent/ collusive/ coercive practice

##### B.1 Irregularities noticed during the evaluation of the bids :

If it is observed during bidding process/ bids evaluation stage that a bidder has indulged in corrupt/fraudulent /collusive/coercive practice, the bid of such Bidder (s) shall be rejected and its Earnest Money Deposit (EMD) shall be forfeited.

Further, such agency shall be banned for future business with GAIL for a period specified in para B 2.2 below from the date of issue of banning order.

##### B.2 Irregularities noticed after award of contract

###### (i) During execution of contract:

If an agency, is found to have indulged in corrupt/fraudulent/ collusive/coercive practices, during execution of contract, the agency shall be banned for future business with GAIL for a period specified in para B 2.2 below from the date of issue of banning order.

The concerned order (s)/ contract(s) where corrupt/fraudulent/collusive practices is observed, shall be suspended with immediate effect by Engineer-in-Charge (EIC)/ Employer whereby the supply/ work/ service and payment etc. will be suspended. The action shall be initiated for putting the agency on banning.

After conclusion of process, the order (s)/ contract (s) where it is concluded that such irregularities have been committed shall be terminated and Contract cum Performance Bank Guarantee (CPBG)/ Contract Performance Security (CPS) submitted by agency against such order (s)/ contract (s) shall also be forfeited. The amount that may have become due to the contractor on account of work already



executed by him shall be payable to the contractor and this amount shall be subject to adjustment against any amounts due from the contractor under the terms of the contract.  
No risk and cost provision will be enforced in such cases.

(i). **After execution of contract and during Defect liability period (DLP)/ Warranty/Guarantee Period:**

If an agency is found to have indulged in corrupt/fraudulent/ collusive/coercive practices, after execution of contract and during DLP/ Warranty/Guarantee Period, the agency shall be banned for future business with GAIL for a period specified in para B 2.2 below from the date of issue of banning order.

Further, the Contract cum Performance Bank Guarantee (CPBG)/Contract Performance Security (CPS) submitted by agency against such order (s)/ contract (s) shall be forfeited.

(ii). **After expiry of Defect liability period (DLP)/ Warranty/Guarantee Period**

If an agency is found to have indulged in corrupt/fraudulent/ collusive/coercive practices, after expiry of Defect liability period (DLP)/ Warranty/Guarantee Period, the agency shall be banned for future business with GAIL for a period specified in para B 2.2 below from the date of issue of banning order.

### B.2.2 Period of Banning

The period of banning of agencies indulged in Corrupt/ Fraudulent/ Collusive/Coercive Practices shall be as under and to be reckoned from the date of banning order:

S. No.	Description	Period of banning from the date of issuance of Banning order
1	Misrepresentation/False information other than pertaining to BEC of tender but having impact on the selection process. For example, if an agency confirms not being in holiday/ banning list of PSUs/ Govt. Dept., liquidation, bankruptcy & etc. and subsequently it is found otherwise, such acts shall be considered in this category.	02 years
2	Corrupt/Fraudulent (pertaining to BEC of tender) /Collusive/Coercive Practices	03 years
2.1	If an agency again commits Corrupt/Fraudulent (pertaining to BEC of tender) /Collusive/ Coercive Practices in subsequent cases after their banning, such situation of repeated offense to be dealt with more severity and following shall be the period of banning:  (v) Repeated once  (vi) Repeated twice or more	7 years (in addition to the period already served)  15 years (in addition to the period already served)
3	Indulged in unauthorized disposal of materials provided by GAIL	7 years
4	If act of vendor/ contractor is a threat to the National Security	15 years

### C Effect of banning on other ongoing contracts/ tenders

C.1 If an agency is put on Banning, such agency should not be considered in ongoing tenders/future tenders.



- C.2 However, if such an agency is already executing other order (s)/ contract (s) where no corrupt/fraudulent/collusive/coercive practice is found, the agency should be allowed to continue till its completion without any further increase in scope except those incidental to original scope mentioned in the contract.
- C.3 If an agency is put on the Banning List during tendering and no irregularity is found in the case under process:
- C.3.1 after issue of the enquiry /bid/tender but before opening of Technical bid, the bid submitted by the agency shall be ignored.
- C.3.2 after opening Technical bid but before opening the Price bid, the Price bid of the agency shall not be opened and BG/EMD submitted by the agency shall be returned to the agency.
- C.3.3 after opening of price, BG/EMD made by the agency shall be returned; the offer of the agency shall be ignored & will not be further evaluated. If the agency is put on banning list for fraud/ mis-appropriation of facts committed in the same tender/other tender where errant agency emerges as the lowest (L1), then such tender shall also be cancelled and re-invited.

## **D. Procedure for Suspension of Bidder**

### **D.1 Initiation of Suspension**

Action for suspension business dealing with any agency/(ies) shall be initiated by Corporate C&P Department when

- (i) Corporate Vigilance Department based on the fact of the case gathered during investigation by them recommend for specific immediate action against the agency.
- (ii) Corporate Vigilance Department based on the input from Investigating agency, forward for specific immediate action against the agency.
- (iii) Non performance of Vendor/Supplier/Contractor/Consultant leading to termination of Contract/ Order.

### **D.2 Suspension Procedure:**

- D.2.1 The order of suspension would operate initially for a period not more than six months and is to be communicated to the agency and also to Corporate Vigilance Department. Period of suspension can be extended with the approval of the Competent Authority by one month at a time with a ceiling of six months pending a conclusive decision to put the agency on banning list.
- D.2.2 During the period of suspension, no new business dealing may be held with the agency.
- D.2.3 Period of suspension shall be accounted for in the final order passed for banning of business with the agency.
- D.2.4 The decision regarding suspension of business dealings should also be communicated to the agency.
- D.2.5 If a prima-facie, case is made out that the agency is guilty on the grounds which can result in banning of business dealings, proposal for issuance of suspension order and show cause notice shall be put up to the Competent Authority. The suspension order and show cause notice must include that (i) the agency is put on suspension list and (ii) why action should not be taken for banning the agency for future business from GAIL.
- The competent authority to approve the suspension will be same as that for according approval for banning.

### **D 3 Effect of Suspension of business:**

Effect of suspension on other on-going/future tenders will be as under:

- D.3.1 No enquiry/bid/tender shall be entertained from an agency as long as the name of agency appears in the Suspension List.
- D.3.2 If an agency is put on the Suspension List during tendering:
- D.3.2.1 after issue of the enquiry /bid/tender but before opening of Technical bid, the bid submitted by the agency shall be ignored.
- D.3.2.2 after opening Technical bid but before opening the Price bid, the Price bid of the agency shall not be opened and BG/EMD submitted by the agency shall be returned to the agency.
- D.3.2.3 after opening of price, BG/EMD made by the agency shall be returned; the offer of the agency shall be ignored & will not be further evaluated. If the agency is put on Suspension list for fraud/ mis-appropriation of facts conducted in the same tender/other tender where errant agency emerges as the lowest (L1), then such tender shall also be cancelled and re-invited.
- D.3.3 The existing contract (s)/ order (s) under execution shall continue.



D.3.4 Tenders invited for procurement of goods, works and services shall have provision that the bidder shall submit a undertaking to the effect that (i) neither the bidder themselves nor their allied agency/(ies) are on banning list of GAIL or the Ministry of Petroleum and Natural Gas and (ii) bidder is not banned by any Government department/ Public Sector.

**F. Appeal against the Decision of the Competent Authority:**

F.1 The agency may file an appeal against the order of the Competent Authority for putting the agency on banning list. The appeal shall be filed to Appellate Authority. Such an appeal shall be preferred within one month from the of receipt of banning order.

F.2 Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the party as well as the Competent Authority.

F.3 Appeal process may be completed within 45 days of filing of appeal with the Appellate Authority.

G. Wherever there is contradiction with respect to terms of 'Integrity pact' , GCC and 'Procedure for action in case of Corrupt/Fraudulent/ Collusive/Coercive Practice', the provisions of 'Procedure for action in case of Corrupt/Fraudulent/ Collusive/Coercive Practice' shall prevail.



**PROCEDURE FOR EVALUATION OF PERFORMANCE OF VENDORS/ SUPPLIERS/ CONTRACTORS/ CONSULTANTS**

**1.0 GENERAL**

A system for evaluation of Vendors/ Suppliers/Contractors/ Consultants and their performance is a key process and important to support an effective purchasing & contracting function of an organization. Performance of all participating Vendors/ Suppliers/Contractors/ Consultants need to be closely monitored to ensure timely receipt of supplies from a Vendor, completion of an assignment by a Consultant or complete execution of order by a contractor within scheduled completion period. For timely execution of projects and meeting the operation & maintenance requirement of operating plants, it is necessary to monitor the execution of order or contracts right from the award stage to completion stage and take corrective measures in time.

**2.0 OBJECTIVE**

The objective of Evaluation of Performance aims to recognize, and develop reliable Vendors/ Suppliers/Contractors/ Consultants so that they consistently meet or exceed expectations and requirements. The purpose of this procedure is to put in place a system to monitor performance of Vendors/ Suppliers/Contractors/ Consultants associated with GAIL so as to ensure timely completion of various projects, timely receipt of supplies including completion of works & services for operation and maintenance of operating plants and quality standards in all respects.

**3.0 METHODOLOGY**

i) Preparation of Performance Rating Data Sheet

Performance rating data Sheet for each and every Vendor/ Supplier/Contractor/Consultant for all orders/Contracts with a value of Rs. 50 Lakhs and above is recommended to be drawn up. Further, Performance rating data Sheet for orders/contracts of Vendor/Supplier/Contractor/ Consultant who are on watch list/holiday list/ banning list shall be prepared irrespective of order/ contract value. These data sheets are to be separately prepared for orders/ contracts related to Projects and O&M. Format, Parameters, Process, responsibility for preparation of Performance Rating Data Sheet are separately mentioned.

ii) Measurement of Performance

Based on the parameters defined in Data Sheet, Performance of concerned Vendor/ Supplier/Contractor/ Consultant would be computed and graded accordingly. The measurement of the performance of the Party would be its ability to achieve the minimum scoring of 60% points in the given parameters.

iii) Initiation of Measures:

Depending upon the Grading of Performance, corrective measures would be initiated by taking up the matter with concerned Vendor/ Supplier/Contractor/ Consultant. Response of Vendor/ Supplier/Contractor/ Consultant would be considered before deciding further course of action.

iv) Implementation of Corrective Measures:

Based on the response of Vendor/ Supplier/Contractor/ Consultant, concerned Engineer-in-Charge for the Projects and/or OIC in case of O&M would recommend for continuation or discontinuation of such party from the business of GAIL.

v) Orders/contracts placed on Proprietary/OEM basis for O&M will be evaluated and, if required, corrective action will be taken for improvement in future.

**4.0 EXCLUSIONS:**

The following would be excluded from the scope of evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants :

- i) Orders/Contracts below the value of Rs. 50 Lakhs if Vendor/ Supplier/Contractor/ Consultant is not on watch list/ holiday list/ banning list.
- ii) Orders for Misc./Administrative items/ Non stock Non valued items (PO with material code ending with 9).

However, concerned Engineer-in-Charge /OICs will continue to monitor such cases so as to minimize the impact on Projects/O&M plants due to non performance of Vendors/ Suppliers/Contractors/ Consultants in all such cases.





## 5.0 PROCESS OF EVALUATION OF PERFORMANCE OF VENDORS/ SUPPLIERS/ CONTRACTORS/ CONSULTANTS

### 5.1 FOR PROJECTS

- i) Evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants in case of PROJECTS shall be done immediately with commissioning of any Project.
- ii) On commissioning of any Project, EIC (Engineer-in-charge)/ Project-in-charge shall prepare a Performance Rating Data Sheet (Format at Annexure-1) for all Orders and Contracts.
- iii) Depending upon the Performance Rating, following action shall be initiated by Engineer-in-charge/Project-in-charge:

Sl.No.	Performance Rating	Action
1	POOR	Seek explanation for Poor performance
2	FAIR	Seek explanation for Fair performance
3	GOOD	Letter to the concerned for improving performance in future
4	VERY GOOD	No further action

- iv) Reply from concerned Vendor/ Supplier/Contractor/ Consultant shall be examined. In case of satisfactory reply, Performance Rating data Sheet to be closed with a letter to the concerned for improving performance in future.
- v) When no reply is received or reasons indicated are unsatisfactory, the following actions need to be taken:

- A) Where performance rating is "POOR" (as per Performance Rating carried out after execution of Order/ Contract and where no reply/ unsatisfactory reply is received from party against the letter seeking the explanation from Vendor/Supplier/Contractor/ Consultant along with sharing the performance rating)

Recommend such defaulting Vendor/Supplier/Contractor/ Consultant for the following action:

- (a) **First such instance: Advisory notice (Yellow Card)** shall be issued and Vendor/Supplier/Contractor/ Consultant shall be put on watch list for a period of Three (3) Years.  
Such vendor will be allowed to participate in all other tenders and to execute other ongoing order/ contract (s) or new contract/ order (s).

The Yellow card will be automatically revoked after a period of three years unless the same is converted into Red Card due to subsequence instances of poor/ non-performance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant.

- (b) **Second such instance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant**

- (i) Poor Performance due to reasons other than Quality: **Putting on Holiday for a period of One Year**
- (ii) Poor Performance on account of Quality (if any mark obtained against Quality parameter is less than 30): **Putting on Holiday for a period of Two Years**
- (c) Subsequent instances (**more than two**) in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Putting on Holiday for a period of Three Years**

- B) Where Poor/Non-Performance leading to termination of contract or Offloading of contract due to poor performance attributable to Vendor/Supplier/ Contractor/Consultant (under clause no. 32 (C) of GCC-Works)



- (a) **First instance: Advisory notice (Yellow Card)** shall be issued and Vendor/Supplier/Contractor /Consultant shall be put on watch list for a period of Three (3) Years.  
Further such vendor will not be allowed to participate in the re-tender of the same supply/work/services of that location which has terminated / offloaded. Moreover, it will be ensured that all other action as per provision of contract including forfeiture of Contract Performance Security (CPS) etc. are undertaken.  
However, such vendor will be allowed to participate in all other tenders and to execute other ongoing order/ contract (s) or new contract/ order (s).  
The Yellow card will be automatically revoked after a period of three years unless the same is converted into Red Card due to subsequence instances of poor/ non-performance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant.
- (b) **Second instances** in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Holiday (Red Card)** for period of One Year and they shall also to be considered for Suspension.
- (c) **Subsequent instances (more than two)** in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Holiday (Red Card) for period of Three Years and they shall also to be considered for Suspension.**
- (C) Where Performance rating is “FAIR”:  
Issuance of warning to such defaulting Vendor/ Supplier/Contractor/ Consultant to improve their performance.

## 5.2 FOR CONSULTANCY JOBS

Monitoring and Evaluation of consultancy jobs will be carried out in the same way as described in para 5.1 for Projects.

## 5.3 FOR OPERATION & MAINTENANCE

- i) Evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants in case of Operation and Maintenance shall be done immediately after execution of order/ contract.
- ii) After execution of orders a Performance Rating Data Sheet (Format at Annexure-2) shall be prepared for Orders by Site C&P and for Contracts/Services by respective Engineer-In-Charge.
- iii) Depending upon Performance Rating, following action shall be initiated by EIC:

Sl. No.	Performance Rating	Action
1	<b>POOR</b>	Seek explanation for Poor performance
2.	<b>FAIR</b>	Seek explanation for Fair performance
3	<b>GOOD</b>	Letter to the concerned for improving performance in future.
4	<b>VERY GOOD</b>	No further action

- iv) Reply from concerned Vendor/ Supplier/Contractor/ Consultant shall be examined. In case of satisfactory reply, Performance Rating data Sheet to be closed with a letter to the concerned for improving performance in future.
- v) When no reply is received or reasons indicated are unsatisfactory, the following actions need to be taken:
  - A) Where performance rating is “POOR” (as per Performance Rating carried out after execution of Order/ Contract and where no reply/ unsatisfactory reply is received from party against the letter seeking the explanation from Vendor/Supplier/Contractor/ Consultant along with sharing the performance rating)

Recommend such defaulting Vendor/Supplier/Contractor/ Consultant for the following action:



- (a) **First such instance: Advisory notice (Yellow Card)** shall be issued and Vendor/Supplier/Contractor/ Consultant shall be put on watch list for a period of Three (3) Years.  
Such vendor will be allowed to participate in all other tenders and to execute other ongoing order/ contract (s) or new contract/ order (s).  
The Yellow card will be automatically revoked after a period of three years unless the same is converted into Red Card due to subsequence instances of poor/ non-performance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant.
- (b) **Second such instance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant**
- (i) Poor Performance due to reasons other than Quality: **Putting on Holiday for a period of One Year**
- (ii) Poor Performance on account of Quality (if any mark obtained against Quality parameter is less than 30): **Putting on Holiday for a period of Two Years**
- (c) Subsequent instances (**more than two**) in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Putting on Holiday for a period of Three Years**
- B) **Where Poor/Non-Performance leading to termination of contract or Offloading of contract due to poor performance attributable to Vendor/Supplier/ Contractor/Consultant (under clause no. 32 (C) of GCC-Works)**
- (a) **First instance: Advisory notice (Yellow Card)** shall be issued and Vendor/Supplier/Contractor /Consultant shall be put on watch list for a period of Three (3) Years.  
Further such vendor will not be allowed to participate in the re-tender of the same supply/work/services of that location which has terminated / offloaded. Moreover, it will be ensured that all other action as per provision of contract including forfeiture of Contract Performance Security (CPS) etc. are undertaken.  
However, such vendor will be allowed to participate in all other tenders and to execute other ongoing order/ contract (s) or new contract/ order (s).  
The Yellow card will be automatically revoked after a period of three years unless the same is converted into Red Card due to subsequence instances of poor/ non-performance in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant.
- (b) **Second instances** in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Holiday (Red Card)** for period of One Year and they shall also be considered for Suspension.
- (c) **Subsequent instances (more than two)** in other ongoing order (s)/ contract (s) or new order (s) /contact (s) on such Vendor/ Supplier/ Contractor/ Consultant: **Holiday (Red Card) for period of Three Years and they shall also be considered for Suspension.**
- (C) **Where Performance rating is “FAIR”**  
Issuance of warning to such defaulting Vendors/Contractors/Consultants to improve their performance.

## 6.0 **REVIEW & RESTORATION OF PARITES PUT ON HOLIDAY**

- 6.1 An order for Holiday passed for a certain specified period shall deemed to have been automatically revoked on the expiry of that specified period and it will not be necessary to issue a specific formal order of revocation.

Further, in case Vendor/ Supplier/Contractor/ Consultant is put on holiday due to quality, and new order is placed on bidder after restoration of Vendor/ Supplier/Contractor/ Consultant, such order will be properly monitored during execution stage by the concerned site.

## 7.0 **EFFECT OF HOLIDAY**



- 7.1 If a Vendor/ Supplier/Contractor/ Consultant is put on Holiday, such Vendor/ Supplier/Contractor/ Consultant shall not be considered in ongoing tenders/future tenders.
- 7.2 However, if such Vendor/ Supplier/Contractor/ Consultant is already executing any other order/ contract and their performance is satisfactory in terms of the relevant contract, should be allowed to continue till its completion without any further increase in scope except those incidental to original scope mentioned in the contract. In such a case CPBG will not be forfeited and payment will be made as per provisions of concerned contract. However, this would be without prejudice to other terms and conditions of the contract.
- 7.3. Effect on other ongoing tendering:
- 7.3.1 after issue of the enquiry /bid/tender but before opening of Technical bid, the bid submitted by the party shall be ignored.
- 7.3.2 after opening Technical bid but before opening the Price bid, the Price bid of the party shall not be opened and BG/EMD submitted by the party shall be returned to the party.
- 7.3.3 after opening of price, BG/EMD made by the party shall be returned; the offer of the party shall be ignored & will not be further evaluated. If errant party emerges as the lowest (L1), then such tender shall also be cancelled and re-invited.
- 8.0 While putting the Vendor/ Supplier/Contractor/ Consultant on holiday as per the procedure, the holding company, subsidiary, joint venture, sister concerns, group division of the errant Vendor/ Supplier/Contractor/ Consultant shall not be considered for putting on holiday list. Any bidder, put on holiday, will not be allowed to bid through consortium route also in new tender during the period of holiday.
- 9.0 If an unsuccessful bidder makes any vexatious, frivolous or malicious complaint against the tender process with the intention of delaying or defeating any procurement or causing loss to GAIL or any other bidder, such bidder will be put on holiday for a period of six months, if such complaint is proved to be vexatious, frivolous or malicious, after following the due procedure.

**10. APPEAL AGAINST THE DECISION OF THE COMPETENT AUTHORITY:**

- (a) The party may file an appeal against the order of the Competent Authority for putting the party on Holiday list. The appeal shall be filed to Appellate Authority. Such an appeal shall be preferred within one month from the of receipt of Holiday order.
- (b) Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the party as well as the Competent Authority.
- (c) Appeal process may be completed within 45 days of filing of appeal with the Appellate Authority.
- (d) "Appellate Authority" shall mean Committee of Directors consisting of Director (Finance) and Director (BD) for works centers under Director (Projects). For all other cases committee of Directors shall consist of Director (Finance) & Director (Projects).

**11. ERRANT BIDDER**

In case after price bid opening the lowest evaluated bidder (L1) is not awarded the job for any mistake committed by him in bidding or withdrawal of bid or modification of bid or varying any term in regard thereof leading to re-tendering, GAIL shall forfeit EMD paid by the bidder and such bidders shall be debarred from participation in re-tendering of the same job(s)/item(s).

Further, such bidder will be put on holiday for a period of six months after following the due procedure.

12. In case CBIC (Central Board of Indirect Taxes and Customs)/ any tax authority / any equivalent government agency brings to the notice of GAIL that the Supplier has not remitted the amount towards GST (CGST & SGST/UTGST or IGST) collected from GAIL to the government exchequer, then, that Supplier shall be put under Holiday list of GAIL for period of six months after following the due procedure. This action will be in addition to the right of recovery of financial implication arising on GAIL.



Annexure-1

**GAIL (India) Limited**  
**PERFORMANCE RATING DATA SHEET**  
**(FOR PROJECTS/ CONSULTANCY JOBS)**

- i) Project/Work Centre :  
 ii) Order/ Contract No. & date :  
 iii) Brief description of Items :  
 Works/Assignment  
 iv) Order/Contract value (Rs.) :  
 v) Name of Vendor/Supplier/ :  
 Contractor/ Consultant  
 vi) Contracted delivery/ :  
 Completion Schedule  
 vii) Actual delivery/ :  
 Completion date

Performance Parameter	Delivery/ Completion Performance	Quality Performance	Reliability Performance#	Total
Maximum Marks	40	40	20	100
Marks Allotted				

Note:

Remarks (if any)

PERFORMANCE RATING (\*\*)

Note :

- (#) Vendor/Supplier/Contractor/Consultant who seek repeated financial assistance or deviation beyond contract payment term or seeking direct payment to the sub-vendor/sub-contractor due to financial constraints, then '0' marks should be allotted against Reliability Performance.  
 (\*) Allocation of marks should be as per enclosed instructions  
 (\*\*) Performance rating shall be classified as under :

Sl. No.	Range (Marks)	Rating
1	60 & below	POOR
2	61-75	FAIR
3	76-90	GOOD
4	More than 90	VERY GOOD

Signature of  
Authorised Signatory:

Name:

Designation:

**Instructions for allocation of marks**

1. Marks are to be allocated as under :

**1.1 DELIVERY/ COMPLETION PERFORMANCE 40 Marks**

Delivery Period/ Completion Schedule	Delay in Weeks	Marks
a) Upto 3 months	Before CDD	40
	Delay upto 4 weeks	35
	” 8 weeks	30
	” 10 weeks	25
	” 12 weeks	20
	” 16 weeks	15
	More than 16 weeks	0
b) Above 3 months	Before CDD	40
	Delay upto 4 weeks	35
	” 8 weeks	30
	” 10 weeks	25



” 16 weeks	20
” 20 weeks	15
” 24 weeks	10
More than 24 weeks	0

**1.2 QUALITY PERFORMANCE 40 Marks**

For Normal Cases : No Defects/ No Deviation/ No failure: 40 marks

i) Rejection/Defects	Marks to be allocated on prorata basis for acceptable quantity as compared to total quantity for normal cases	10 marks
ii) When quality failure endanger system integration and safety of the system	Failure of severe nature - Moderate nature - low severe nature	0 marks 5 marks 10-25 marks
iii) Number of deviations	1. No deviation 2. No. of deviations $\leq 2$ 3. No. of deviations $> 2$	5 marks 2 marks 0 marks

**1.3 RELIABILITY PERFORMANCE 20 Marks**

<b>A.</b>	<b>FOR WORKS/CONTRACTS</b>	
i)	Submission of order acceptance, agreement, PBG, Drawings and other documents within time	4 marks
ii)	Mobilization of resources as per Contract and in time	4 marks
iii)	Liquidation of Check-list points	4 marks
iv)	Compliance to statutory and HS&E requirements or Reliability of Estimates/Design/Drawing etc. in case of Consultancy jobs	4 marks
v)	Timely submission of estimates and other documents for Extra, Substituted & AHR items	4 marks
<b>B.</b>	<b>FOR SUPPLIES</b>	
i)	Submission of order acceptance, PBG, Drawings and other documents within time	5 marks
ii)	Attending complaints and requests for after sales service/ warranty repairs and/ or query/ advice (upto the evaluation period).	5 marks
iii)	Response to various correspondence and conformance to standards like ISO	5 marks
iv)	Submission of all required documents including Test Certificates at the time of supply	5 marks



Annexure-2

**GAIL (India) Limited**  
**PERFORMANCE RATING DATA SHEET**  
**(FOR O&M)**

- i) Location :
- ii) Order/ Contract No. & date :
- iii) Brief description of Items :  
Works/Assignment
- iv) Order/Contract value (Rs.) :
- v) Name of Vendor/Supplier/ Contractor/ Consultant :
- vi) Contracted delivery/ Completion Schedule :
- vii) Actual delivery/ Completion date :

Performance Parameter	Delivery Performance	Quality Performance	Reliability Performance#	Total
Maximum Marks	40	40	20	100
Marks Allocated (*)				

Remarks (if any)

PERFORMANCE RATING (\*\*)

Note :

- (#) Vendor/Supplier/Contractor/Consultant who seek repeated financial assistance or deviation beyond contract payment term or seeking direct payment to the sub-vendor/sub-contractor due to financial constraints, then '0' marks should be allotted against Reliability Performance
- (\*) Allocation of marks should be as per enclosed instructions
- (\*\*) Performance rating shall be classified as under :

Sl. No.	Range (Marks)	Rating
1	60 & below	POOR
2	61-75	FAIR
3	76-90	GOOD
4	More than 90	VERY GOOD

Signature of  
Authorised Signatory:

Name:

Designation:

**Instructions for allocation of marks (For O&M)**

1. Marks are to be allocated as under :

**1.1 DELIVERY/ COMPLETION PERFORMANCE 40 Marks**

Delivery Period/ Completion Schedule	Delay in Weeks	Marks
a) Upto 3 months	Before CDD	40
	Delay upto 4 weeks	35
	"    8 weeks	30
	"    10 weeks	25
	"    12 weeks	20
	"    16 weeks	15
	More than 16 weeks	0
b) Above 3 months	Before CDD	40
	Delay upto 4 weeks	35
	"    8 weeks	30
	"    10 weeks	25
	"    16 weeks	20
	"    20 weeks	15



” 24 weeks 10  
More than 24 weeks 0

**1.2 QUALITY PERFORMANCE 40 Marks**

For Normal Cases : No Defects/ No Deviation/ No failure: 40 marks

- |                                                                               |                                                                                                               |                                   |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------|
| i) Rejection/Defects                                                          | Marks to be allocated on prorata basis for acceptable quantity as compared to total quantity for normal cases | 10 marks                          |
| ii) When quality failure endanger system integration and safety of the system | Failure of severe nature<br>- Moderate nature<br>- low severe nature                                          | 0 marks<br>5 marks<br>10-25 marks |
| iii) Number of deviations                                                     | 1. No deviation<br>2. No. of deviations $\leq 2$<br>3. No. of deviations $> 2$                                | 5 marks<br>2 marks<br>0 marks     |

**1.3 RELIABILITY PERFORMANCE 20 Marks**

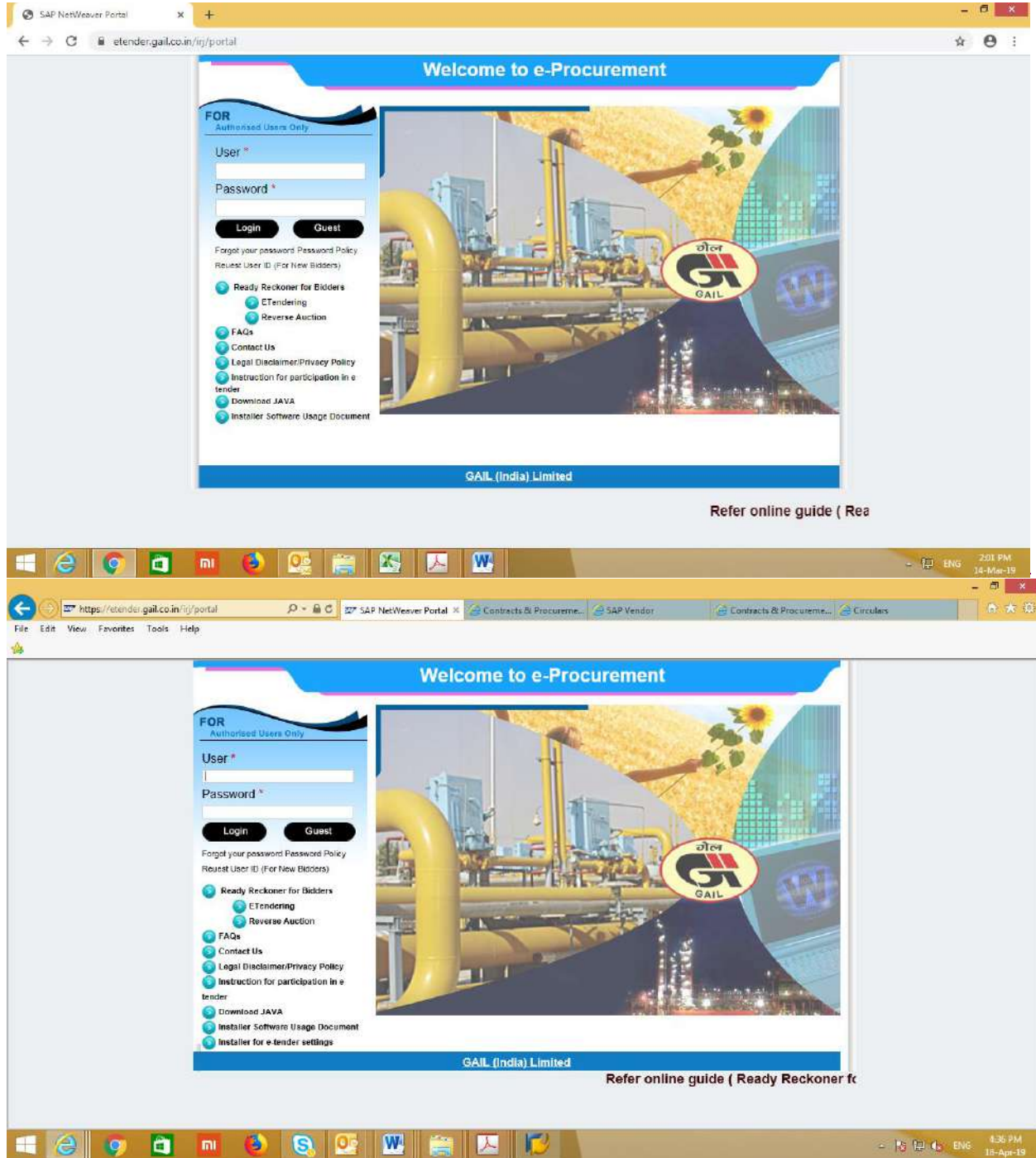
<b>A.</b>	<b>FOR WORKS/CONTRACTS</b>	
i)	Submission of order acceptance, agreement, PBG, Drawings and other documents within time	4 marks
ii)	Mobilization of resources as per Contract and in time	4 marks
iii)	Liquidation of Check-list points	4 marks
iv)	Compliance to statutory and HS&E requirements  or  Reliability of Estimates/Design/Drawing etc. in case of Consultancy jobs	4 marks
v)	Timely submission of estimates and other documents for Extra, Substituted & AHR items	4 marks
<b>B.</b>	<b>FOR SUPPLIES</b>	
i)	Submission of order acceptance, PBG, Drawings and other documents within time	5 marks
ii)	Attending complaints and requests for after sales service/ warranty repairs and/ or query/ advice (upto the evaluation period).	5 marks
iii)	Response to various correspondence and conformance to standards like ISO	5 marks
iv)	Submission of all required documents including Test Certificates at the time of supply	5 marks





**ADDENDUM TO INSTRUCTIONS TO BIDDERS  
(INSTRUCTIONS FOR PARTICIPATION IN E-TENDER)**

Available on GAIL's e-tender website (<https://etender.gail.co.in>)



Ready Reckoner for Bidders, Frequently Asked Questions, Contact details, Instructions for participation in e-tender and An Auto Installer for PC/Browser Setting etc. are available in above home page of GAIL's e-tender portal.



Note:

An Auto Installer for PC/Browser Setting(IE) enabling GAIL e-tender/Reverse Auction for bidders was developed by GAIL.

The same is available on GAIL e-tender portal under link “Installer for e-tender settings”. The user can download the auto installer by navigating the link and the moment they install on their PC auto settings take place enabling the PC and browser(IE) for GAIL e-tender and Reverse Auction. The usage document of the installer is also kept under link “Installer software usage document”.

This will save time and effort for Vendors/bidders as well as GAIL e-tender support team and will give bidders a hassle-free e-bidding experience in GAIL.

**ANNEXURE-IV****BIDDING DATA SHEET (BDS)****ITB (SECTION-III) TO BE READ IN CONJUNCTION WITH THE FOLLOWING:**

ITB clause	Description				
<b>A. GENERAL</b>					
1.1	The Purchaser is: GAIL (India) Limited The consignee details for the goods: REFER SCC, SOW & SOR.				
1.2	The Invitation for Bid/ Tender is for: DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 25 KWP (11 NO.), GRID TIED AND RPR, ROOF TOP SOLAR PLANT & 3 KWP (1 NO.) UNDER GAIL NCR JURISDICTION				
<b>B. TENDER DOCUMENT</b>					
8.1	For <b><u>clarification purposes</u></b> only, the communication address is:  ATTENTION: <ul style="list-style-type: none"> <li>• MR. JASPREET SINGH SETHI, SR. MANAGER (C&amp;P): <a href="mailto:JASPREET.SINGH@GAIL.CO.IN">JASPREET.SINGH@GAIL.CO.IN</a></li> <li>• MR. KANWAL NAIN, MANAGER (C&amp;P) <a href="mailto:KANWAL.NAIN@GAIL.CO.IN">KANWAL.NAIN@GAIL.CO.IN</a></li> <li>• MR. RAJEEV MEHROTRA, GEN. MANAGER (C&amp;P) <a href="mailto:RMEHROTRA@GAIL.CO.IN">RMEHROTRA@GAIL.CO.IN</a></li> </ul> ADDRESS: GAIL (INDIA) LIMITED B 35/36 INFOHUB BUILDING SECTOR-1, NOIDA-201301				
<b>C. PREPARATION OF BID</b>					
11.1.1 (m)	Additional documents to be submitted by the Bidder with its Part-I (Techno-commercial/ Unpriced bid): REFER SCC & SOW				
12 & 13	Additional Provision for Price Schedule/ Schedule of Rate/ Bid Price are as under: AS PER BID DOCUMENT  Whether GAIL will be able to avail input tax credit in the instant tender <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">✓</td> </tr> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">X</td> </tr> </table>	YES	✓	NO	X
YES	✓				
NO	X				
12.1	Whether Bidder shall indicate breakup of the quantum of imports involved for import of necessary raw materials and components giving CIF value of Import in applicable currency considered and included in bid price <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">✓</td> </tr> </table>	YES	X	NO	✓
YES	X				
NO	✓				



	Whether the Tendered items are of Project Procurement:	
	YES	X
	NO	✓
<b>12.3</b>	Transit Insurance shall be arranged by :-	
	GAIL	✓
	SUPPLIER	X
	Details of Transit Insurance Policy shall be shared along with PO.	
<b>12.5</b>	Delivery basis shall be	
	FOT/FOR Site(s), which are mentioned in SCC & SoW	✓
	EX-WORKS/FOT Dispatch point	X
<b>13.7 and 13.8</b>	Details of Buyer:	
	Consignee	GAIL (INDIA) LIMITED [REFER SCC, SOW & SOR]
	PAN No.	AAACG1209J
	GST No.	SHALL BE INTIMATED ALONG WITH PO
	GAIL Bank details	STATE BANK OF INDIA SECTOR 2, NOIDA (U.P) ACCOUNT NO- 32811491987 IFSC CODE -SBIN0005936
<b>14</b>	The currency of the Bid shall be INR	
<b>15</b>	The bid validity period shall be 3 MONTHS from final Bid Due Date'.	
<b>16.1</b>	In case 'Earnest Money / Bid Security' is in the form of 'Demand Draft' or 'Banker's Cheque', the same should be favor of GAIL (India) Limited, payable at NOIDA	
<b>16.9 &amp; 38.5</b>	<p>GAIL's Bank a/c details: STATE BANK OF INDIA SECTOR 2, NOIDA (U.P) ACCOUNT NO- 32811491987 IFSC CODE -SBIN0005936</p> <p>Bidder to mention reference no. "EMD/....." in narration while remitting bid security /EMD amount in GAIL's Bank Account.</p> <p style="text-align: center;">AND</p> <p>Successful Bidder to mention reference no. "CPS/FOA/PO No....." in narration while remitting CPS amount in GAIL's Bank Account.</p>	
<b>D. SUBMISSION AND OPENING OF BIDS</b>		
<b>22</b>	The E-Tender No. of this bidding process is: <b>8000017462</b>	



22.2	<p>For submission of physical document as per clause no. 4.0 of IFB, the Owner's address is :</p> <p>MR. JASPREET SINGH SETHI, SR. MANAGER (C&amp;P): GAIL (INDIA) LIMITED B 35/36 INFOHUB BUILDING SECTOR-1, NOIDA-201301</p>				
26	<p><b>The bid opening shall take place at:</b> GAIL (India) Limited, B 35/36 Infohub Building Sector-1, Noida-201301 Country: India</p>				
<b>E. EVALUATION, AND COMPARISON OF BIDS</b>					
32	Evaluation Methodology is mentioned in Section-II.				
<b>F. AWARD OF CONTRACT</b>					
36	<p>The following designated authority shall be contacted after receipt of Notification of Award for all contractual matters:</p> <p>ENGINEER-IN-CHARGE/ SITE-IN-CHARGE (DETAILS OF WHOM SHALL BE MENTIONED IN PO)</p>				
37.4	<p>Whether part shipment is allowed:</p> <table border="1"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">✓</td> </tr> </table>	YES	X	NO	✓
YES	X				
NO	✓				
38	<p>Contract Performance Security (CPS)/ Security Deposit</p> <table border="1"> <tr> <td style="text-align: center;">APPLICABLE</td> <td style="text-align: center;">✓</td> </tr> <tr> <td style="text-align: center;">NOT APPLICABLE</td> <td style="text-align: center;">X</td> </tr> </table> <p><i>SD / CPBG @ 10% of Total Order / Contract value in case contract period is less than one year or 10% of Annualized Order / Contract value in case contract period is more than one year.</i></p> <p style="text-align: center;"><b>OR</b></p> <p><i>Initial security deposit (ISD) @ 2.5% of Total Order / Contract value in case contract period is less than one year or 2.5% of Annualized Order / Contract value in case contract period is more than one year within 30 days of FOA/notification of award and deduction @ 7.5% of the RA bill subsequently from RA bills till the total amount of security deposit (including ISD and deducted amount) reaches 10% of Total Order / Contract value in case contract period is less than one year or 10% of Annualized Order / Contract value in case contract period is more than one year</i></p>	APPLICABLE	✓	NOT APPLICABLE	X
APPLICABLE	✓				
NOT APPLICABLE	X				
40	<p>Whether tendered item is split-able or divisible :</p> <table border="1"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">X</td> </tr> </table>	YES	X		
YES	X				



	NO	✓	
<b>44.1</b>	Quarterly Closure of Contract		
	APPLICABLE	✓	
	NOT APPLICABLE	X	
<b>48</b>	Applicability of provisions relating to Startups:		
	APPLICABLE	✓	
	NOT APPLICABLE	X	



**LIST OF FORMS & FORMATS**

<b>Form No.</b>	<b>Description</b>
F-1	BIDDER'S GENERAL INFORMATION
F-2	PROFORMA OF "BANK GUARANTEE" FOR "EARNEST MONEY DEPOSIT / BID SECURITY"
F-3	LETTER OF AUTHORITY
F-4	PROFORMA OF "BANK GUARANTEE" FOR "CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT"
F-5	AGREED TERMS & CONDITIONS
F-6	ACKNOWLEDGEMENT CUM CONSENT LETTER
F-7	BIDDER'S EXPERIENCE
F-8	CHECK LIST
F-9	FORMAT FOR CERTIFICATE FROM BANK IF BIDDER'S WORKING CAPITAL IS INADEQUATE
F-10	FORMAT FOR CHARTERED ACCOUNTANT CERTIFICATE FOR FINANCIAL CAPABILITY OF THE BIDDER
F-11	BIDDER'S QUERIES FOR PRE BID MEETING
F-12	E-BANKING MANDATE FORM
F-13	INTEGRITY PACT
F-14	FREQUENTLY ASKED QUESTIONS (FAQs)

**F-1****BIDDER'S GENERAL INFORMATION**

To,  
M/s GAIL (INDIA) LIMITED

TENDER NO:

1	Bidder Name	M/s.....
2	Status of Firm	Proprietorship Firm/Partnership firm/ Limited Liability Partnership (LLP) firm/ Public Limited/ Pvt. Limited/ Govt. Dept. / PSU/ Others  If Others Specify: _____  [Enclose relevant certificates / partnership deed/certificate of Registration, as applicable]
3a	Name of Proprietor/ Partners/ Directors of the firm/company [As per cl.no.4.0 of Section-III of Tender Document]	1. 2. 3.
3b	Name of Power of Attorney holders of bidder	
4	Number of Years in Operation	
5	Address of Registered Office:  *In case of Partnership firm, provide current address of the firm for ordering purpose.	City: District: State: PIN/ZIP:
6	Bidder's address where order/contract is to be placed *	City: District: State: PIN/ZIP:
7	Address from where Goods/ Services are to be dispatched/ provided along with GST no.  (In case supply of Goods / Services are from multiple locations, addresses and GST no. of all such locations are to be provided).	City: District: State: PIN/ZIP: GST No.:
8	Telephone Number & Contact Information address where order is to	_____ (Country Code) (Area Code) (Telephone





	be placed	No.) Mobile No. : ..... e-mail ID: .....
9	Website	
10	Fax Number:	(Country Code) (Area Code) (Telephone No.)
11	ISO Certification, if any	[If yes, please furnish details]
12	PAN No.	[Enclose copy of PAN Card]
13	GST No. (refer sl. no. 7 above)	[Enclose copy of GST Registration Certificate]
14	Whether Micro or Small Enterprise	Yes / No <i>(If Yes, Bidder to submit requisite documents as specified in ITB: Clause No. 40)</i>
	Whether MSE is owned by SC/ST Entrepreneur(s)	Yes / No <i>(If Yes, Bidder to submit requisite documents as specified in ITB: Clause No. 40)</i>
	Whether MSE is owned by Women	Yes / No <i>(If Yes, Bidder to submit requisite documents as specified in ITB: Clause No. 40)</i>
	Whether payment is required through TReDS	Yes / No <i>If Yes, please provide the name of portal</i> .....

Note: \*-GAIL intent to place the order/contract directly on the address from where Goods are produced/dispatched OR Services are rendered. In case, bidder wants order/ contract at some other address or supply of Goods/ Services from multiple locations, bidder is required -to provide the address on which order is to be placed at sl.no.6 above.

Place: [Signature of Authorized Signatory of Bidder]  
Date: Name:  
Designation:  
Seal:



**FORMAT F-2**  
**PROFORMA OF "BANK GUARANTEE" FOR "EARNEST MONEY DEPOSIT/  
 BID SECURITY"**

(To be stamped in accordance with the Stamp Act)

To, M/s GAIL (India) Limited  _____	<b>Bank Guarantee No.</b>	
	<b>Date of BG</b>	
	<b>BG Valid up to (Expiry date)</b>	
	<b>Claim period up to (indicate date of expiry of claim period which includes minimum three months from the expiry date)</b>	
	<b>Stamp Sl. No./e-Stamp Certificate No.</b>	

**Dear Sir(s),**

In accordance with Tender Document under your reference No \_\_\_\_\_ M/s.

\_\_\_\_\_ having their Registered / Head Office at \_\_\_\_\_ (hereinafter called the Tenderer/Bidder), wish to participate in the said tender for

As an irrevocable Bank Guarantee against Earnest Money Deposit for the amount of \_\_\_\_\_ is required to be submitted by the bidder as a condition precedent for participation in the said Tender Document which amount is liable to be forfeited on the happening of any contingencies mentioned in the Tender Document.

We, the \_\_\_\_\_ Bank at \_\_\_\_\_ having our Head Office \_\_\_\_\_ (Local Address) guarantee and undertake to pay immediately on demand without any recourse to the Bidder by GAIL (India) Ltd., the amount \_\_\_\_\_ without any reservation, protest, demur and recourse. Any such demand made by GAIL (India) Ltd., shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This guarantee shall be irrevocable and shall remain valid up to \_\_\_\_\_ [this date should be two (02) months beyond the validity of the bid]. If any further extension of this guarantee is required, the same shall be extended to such required period on receiving instructions from Bidder M/s. \_\_\_\_\_ on whose behalf this guarantee is issued.

Notwithstanding anything contained herein:

a) The Bank's liability under this Guarantee shall not exceed (currency in figures) . . . . . (currency in words only) . . . . .

b) This Guarantee shall remain in force upto \_\_\_\_\_ (this expiry date of BG should be two months beyond the validity of bid) and any extension(s) thereof; and



c) The Bank shall be released and discharged from all liability under this Guarantee unless a written claim or demand is issued to the Bank on or before the midnight of .....(indicate date of expiry of claim period which includes minimum three months from the expiry of this Bank Guarantee) and if extended, the date of expiry of the last extension of this Guarantee. If a claim has been received by us within the said date, all the rights of GAIL under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ at \_\_\_\_\_.

WITNESS:

(SIGNATURE)  
(NAME)

(SIGNATURE)  
(NAME)

Designation with Bank Stamp

E-Mail ID:

Telephone/Mobile No. :

Attorney as per

Power of Attorney No. \_\_\_\_\_

Date: \_\_\_\_\_

(OFFICIAL ADDRESS)

**INSTRUCTIONS FOR FURNISHING "BID SECURITY DEPOSIT/ EARNEST MONEY" BY "BANK GUARANTEE"**

1. The Bank Guarantee by Bidders will be given on non-judicial stamp paper as per "Stamp Duty" applicable. The non-judicial stamp paper should be in the name of the issuing Bank.
2. The expiry date should be arrived at in accordance with "ITB: Clause-16.1".
3. The Bank Guarantee by bidders will be given from Bank as specified in "ITB: Clause-16.3".
4. A letter from the issuing Bank of the requisite Bank Guarantee confirming that said Bank Guarantee / all future communication relating to the Bank Guarantee shall be forwarded to the Purchaser at its address as mentioned at "ITB".
5. Bidder must indicate the full postal address of the Bank along with the Bank's E-mail / Fax / Phone from where the Bank Guarantee has been issued at sl.no.2 of Form F-5.
6. If a Bank Guarantee is issued by a commercial Bank, then a letter to be submitted to Purchaser confirming its net worth is more than ———Rs. 1,000,000,000.00 [Rupees One Hundred Crores] or equivalent alongwith documentary evidence or in the Bank Guarantee itself.



**F-3**

**LETTER OF AUTHORITY**

[Pro forma for Letter of Authority for Attending 'Pre-Bid Meetings' /'Un-priced Bid Opening' / 'Price Bid Opening']

Ref:  
To,  
M/s GAIL (INDIA) LIMITED

Date:

SUB:  
TENDER NO:

**Dear Sir,**

I/We, \_\_\_\_\_ hereby authorize the following representative(s) for attending 'Pre-Bid Meeting', 'Un-priced Bid Opening', 'Price Bid Opening' against the above Tender Document:

[1] Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_  
Phone/Cell:  
Fax:  
E-mail: ..... @ .....

[2] Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_  
Phone/Cell:  
Fax:  
E-mail: ..... @ .....

We confirm that we shall be bound by all commitments made by aforementioned authorised representative(s).

Place: [Signature of Authorized Signatory of Bidder]  
Date: Name:  
Designation:  
Seal:

Note: This "Letter of Authority" should be on the "**letterhead**" of the Firm / Bidder and should be signed by a person competent and having the 'Power of Attorney' to bind the Bidder. Not more than 'two [02] persons per Bidder' are permitted to attend "Techno-commercial / Un-priced" & "Price Bid" Openings. Bidders authorized representative is required to carry a copy of this authority letter while attending the un-priced and priced bid opening, the same shall be submitted to GAIL.



**F-4**  
**PROFORMA OF "BANK GUARANTEE" FOR "CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT"**  
**(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

To, M/s GAIL (India) Limited  _____	<b>Bank Guarantee No.</b>	
	<b>Date of BG</b>	
	<b>BG Valid up to (Expiry date)</b>	
	<b>Claim period up to (indicate date of expiry of claim period which includes minimum three months from the expiry date)</b>	
	<b>Stamp Sl. No./e-Stamp Certificate No.</b>	

**Dear Sir(s),**

M/s. \_\_\_\_\_ having registered office at \_\_\_\_\_ (herein after called the "contractor/supplier" which expression shall wherever the context so require include its successors and assignees) have been placed/ awarded the job/work of \_\_\_\_\_ vide PO/LOA /FOA No. \_\_\_\_\_ dated \_\_\_\_\_ for GAIL (India) Limited having registered office at 16, Bhikaiji Cama Place, R.K. Puram, New Delhi (herein after called the "GAIL" which expression shall wherever the context so require include its successors and assignees).

The Contract conditions provide that the SUPPLIER/CONTRACTOR shall pay a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) as full Contract Performance Guarantee in the form therein mentioned. The form of payment of Contract Performance Guarantee includes guarantee executed by Nationalized Bank/Scheduled Commercial Bank, undertaking full responsibility to indemnify GAIL (INDIA) LIMITED, in case of default.

The said M/s. \_\_\_\_\_ has approached us and at their request and in consideration of the premises we having our office at \_\_\_\_\_ have agreed to give such guarantee as hereinafter mentioned.

1. We \_\_\_\_\_ hereby undertake to give the irrevocable & unconditional guarantee to you that if default shall be made by M/s. \_\_\_\_\_ in performing any of the terms and conditions of the tender/order/contract or in payment of any money payable to GAIL (INDIA) LIMITED we shall on first demand pay without demur, contest, protest and/ or without any recourse to the contractor to GAIL in such manner as GAIL may direct the said amount of Rupees \_\_\_\_\_ only or such portion thereof not exceeding the said sum as you may require from time to time.
2. You will have the full liberty without reference to us and without affecting this guarantee, postpone for any time or from time to time the exercise of any of the powers and rights conferred on you under the order/contract with the said \_\_\_\_\_ M/s. \_\_\_\_\_ and to enforce or to forbear from endorsing any powers or rights or by reason of time being given to the said M/s. \_\_\_\_\_ and such postponement forbearance would not have the effect of releasing the bank from its obligation under this debt.



3. Your right to recover the said sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) from us in manner aforesaid is absolute & unequivocal and will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. \_\_\_\_\_ and/or that any dispute or disputes are pending before any officer, tribunal or court or arbitrator or any other authority/forum and any demand made by you in the bank shall be conclusive and binding. The bank shall not be released of its obligations under these presents by any exercise by you of its liberty with reference to matter aforesaid or any of their or by reason or any other act of omission or commission on your part or any other indulgence shown by you or by any other matter or changed what so ever which under law would, but for this provision, have the effect of releasing the bank.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up dissolution or changes of constitution or insolvency of the said supplier/contractor but shall in all respects and for all purposes be binding and operative until payment of all money due to you in respect of such liabilities is paid.
5. The bank undertakes not to revoke this guarantee during its currency without your previous consent and further agrees that the guarantee shall continue to be enforceable until it is discharged by GAIL in writing. However, if for any reason, the supplier/contractor is unable to complete the supply/work within the period stipulated in the order/contract and in case of extension of the date of delivery/completion resulting extension of defect liability period/guarantee period of the supplier/contractor fails to perform the supply/work fully, the bank hereby agrees to further extend this guarantee at the instance of the supplier/contractor till such time as may be determined by GAIL. If any further extension of this guarantee is required, the same shall be extended to such required period on receiving instruction from M/s. \_\_\_\_\_ (contractor) on whose behalf this guarantee is issued.
6. Bank also agrees that GAIL at its option shall be entitled to enforce this Guarantee against the bank (as principal debtor) in the first instant, without proceeding against the supplier/contractor and notwithstanding any security or other guarantee that GAIL may have in relation to the supplier's/contractor's liabilities.
7. The amount under the Bank Guarantee is payable forthwith without any delay by Bank upon the written demand raised by GAIL. Any dispute arising out of or in relation to the said Bank Guarantee shall be subject to the exclusive jurisdiction of courts at New Delhi.
8. Therefore, we hereby affirm that we are guarantors and responsible to you on behalf of the Supplier/Contractor up to a total amount of \_\_\_\_\_ (amount of guarantees in words and figures) and we undertake to pay you, upon your first written demand declaring the Supplier/Contractor to be in default under the order/contract and without caveat or argument, any sum or sums within the limits of (amounts of guarantee) as aforesaid, without your needing to prove or show grounds or reasons for your demand or the sum specified therein.
9. We have power to issue this guarantee in your favor under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney, dated \_\_\_\_\_ granted to him by the Bank.

Notwithstanding anything contained herein:

- a) The Bank's liability under this Guarantee shall not exceed (currency in figures) . . . . .  
 . . . . . (currency in words only) . . . . .



- b) This Guarantee shall remain in force upto \_\_\_\_\_ (this date should be expiry date of defect liability period of the Contract) and any extension(s) thereof; and
- c) The Bank shall be released and discharged from all liability under this Guarantee unless a written claim or demand is issued to the Bank on or before the midnight of .....(indicate date of expiry of claim period which includes minimum three months from the expiry of this Bank Guarantee) and if extended, the date of expiry of the last extension of this Guarantee. If a claim has been received by us within the said date, all the rights of GAIL under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

Yours faithfully,

Bank by its Constituted Attorney

Signature of a person duly  
Authorized to sign on behalf of the Bank

**INSTRUCTIONS FOR FURNISHING**  
**"CONTRACT PERFORMANCE SECURITY / SECURITY DEPOSIT" BY "BANK**  
**GUARANTEE"**

1. The Bank Guarantee by successful Bidder(s) will be given on non-judicial stamp paper as per 'stamp duty' applicable. The non-judicial stamp paper should be in name of the issuing bank.
2. The Bank Guarantee by Bidders will be given from bank as specified in cl.no. 38.2 of ITB [Section-III] of Tender Document.
3. A letter from the issuing bank of the requisite Bank Guarantee confirming that said Bank Guarantee and all future communication relating to the Bank Guarantee shall be forwarded to Purchaser.
4. If a Bank Guarantee is issued by a commercial bank, then a letter to Purchaser and copy to Consultant (if applicable) confirming its net worth is more than Rs. 100,00,00,000.00 [Rupees One Hundred Crores] or its equivalent in foreign currency alongwith documentary evidence or in the Bank Guarantee itself.
5. Supplier shall submit attached cover letter (Annexure) while submitting Contract Performance Security / Security Deposit.



Annexure

**MATTER TO BE MENTIONED IN COVERING LETTER TO BE SUBMITTED BY  
VENDOR ALONG WITH BANK GUARANTEE**

1	BANK GUARANTEE NO	:					
2	VENDOR NAME / VENDOR CODE	:	<table border="1"> <tr> <td>NAME</td> <td></td> </tr> <tr> <td>VENDOR CODE</td> <td></td> </tr> </table>	NAME		VENDOR CODE	
NAME							
VENDOR CODE							
3	BANK GUARANTEE AMOUNT	:					
4	PURCHASE ORDER/ LOA NO	:					
5	NATURE OF BANK GUARANTEE (Please Tick (√) Whichever is Applicable)	:	<table border="1"> <tr> <td>PERFORMANCE BANK GUARANTEE</td> <td>SECURITY DEPOSIT</td> <td>EMD</td> <td>ADVANCE</td> </tr> </table>	PERFORMANCE BANK GUARANTEE	SECURITY DEPOSIT	EMD	ADVANCE
PERFORMANCE BANK GUARANTEE	SECURITY DEPOSIT	EMD	ADVANCE				
6	BG ISSUED BANK DETAILS	:					
	(A) EMAIL ID	:					
	(B) ADDRESS	:					
	(C) PHONE NO/ MOBILE NO.	:					





**F-5**  
**AGREED TERMS & CONDITIONS**

To,

M/s GAIL (INDIA) LIMITED

SUB:

TENDER NO:

This Format duly filled in, signed & stamped must form part of Bidder's Bid and must be submitted in Part –I (Un-priced Bid). Clauses confirmed hereunder need not be repeated in the Bid.

Sl.	DESCRIPTION	BIDDER'S CONFIRMATION
1.	Bidder's name, and address	Bidder's name : Address:
2.	Bidder furnishes EMD/Bid Security details as under : a) EMD/ Bid Security No. & date b) Value c) Validity d) Bank Address/e-mail ID/Mobile no. [in case of BG]	
3.	Bidder confirms that the currency of quoted prices is in Indian Rupees.	
4.	Bidder confirms that quoted prices will remain firm and fixed (except where price escalation/variation is allowed in the Tender) till complete execution of the order.	
5.	Bidder confirms that quoted prices are strictly as per Price Schedule format of the Tender Document.	
6.	Bidder specify the Dispatch Point[Location, Dist. & State from where material will be dispatched]:	
7.	Bidder confirms acceptance of relevant Terms of Payment specified in the Bid Document.	
8.	Bidder confirms that Contract Performance Security/ Security Deposit (CPS) will be furnished as per Bid Document within 30 days of FOA in case of successful bidder.	
9.	Bidder confirms that CPS shall be from any Indian scheduled bank or a branch of an International bank situated in India and registered with Reserve bank of India as scheduled foreign bank. However, in case of bank guarantees from banks other than the Nationalised Indian banks, the bank must be a commercial bank having net worth in excess of Rs 100 crores and a declaration to this effect shall be made by such commercial bank either in the Bank Guarantee itself or separately on its letterhead.	
10.	Bidder confirms acceptance to Delivery/–Completion Period as per Bid Document and the same shall be reckoned from the date of Fax of Acceptance (FOA).	
11.	(i) Bidder confirms acceptance of Price Reduction Schedule	



Sl.	DESCRIPTION	BIDDER'S CONFIRMATION		
	(PRS) for delay in delivery as specified in Bid Document. (ii) In case of delay, the bills shall be submitted after reducing the price reduction due to delay (refer PRS Clause).			
12.	a) Bidder confirms acceptance of all terms and conditions of Bid Document (all sections & enclosures). b) Bidder confirms that printed terms and conditions of Bidder are not applicable.			
13.	Bidder confirms that their offer is valid for period specified in BDS from the final 'Bid Due Date'.			
14.	Bidder confirms that (i) none of Directors (in Board of Director) of bidder is a relative of any Director (in Board of Director) of Owner or (ii) the bidder is not a firm in which any Director (in Board of Director) of Owner/ GAIL or their relative is a partner.	Confirmed		
		Not confirmed		
15.	Bidder confirms that all correspondence must be in ENGLISH language only.			
16.	Bidder confirms that all Bank charges associated with Bidder's Bank shall be borne by Bidder.			
17.	Bidder confirms that the quoted prices is in compliance with the Section 171 of CGST Act/ SGST Act as mentioned as clause no. 13.10 of ITB (Anti-profiteering clause)			
18.	Bidder confirms that they have quoted rate of applicable GST (CGST & SGST/ UTGST or IGST ) in Price Schedule of Price Bid.	Confirmed		
19.	Whether in the instant tender items are covered in reverse charge rule of GST (CGST & SGST/UTGST or IGST).	Yes/ No		
		In case of Yes, please specify GST (CGST & SGST/UTGST or IGST) payable by: GAIL:.....% Bidder:.....%		
20.	Bidder confirms that they have mentioned Harmonized System Nomenclature (HSN) in Price Schedule of Price Bid.	Confirmed		
21.	Bidder confirms that (i) any variation in GST at the time of supplies for any reasons, other than statutory, including variations due to turnover, shall be borne by them and (ii) any error of interpretation of applicability of rate of GST (CGST & SGST/ UTGST or IGST-) on components of an item and/or various items of tender by them shall be to bidder's account.			
22.	<b>Part Order:</b>  (a) Bidder confirms acceptance to Part Order. (b) Bidder confirms that any charges quoted extra as lumpsum shall be applicable prorata on value basis in the event of part order.			



Sl.	DESCRIPTION	BIDDER'S CONFIRMATION
23.	<p><b>Testing and Inspection charges:</b></p> <p>Bidder confirms that goods and services are subject to stage-wise and final Inspection by Owner / Owner's Authorized representative. Travel, Living and Personnel expenses of Owner / Authorized representative shall be borne by Owner / authorized representative.</p>	
24.	<p><u>No Deviation Confirmation:</u></p> <p>It may be note that any 'deviation / exception' in any form may result in rejection of Bid. Therefore, Bidder confirms that they have not taken any 'exception / deviation' anywhere in the Bid. In case any 'deviation / exception' is mentioned or noticed, Bidder's Bid may be rejected.</p>	
25.	<p>If the Bidder becomes a successful Bidder pursuant to the provisions of the Tender Document, the following Confirmation shall be automatically become enforceable:</p> <p>"Bidder agrees and acknowledges that the Employer is entering into the Contract/Agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood &amp; agreed that the Government of India is not a party to the Contract/Agreement and has no liabilities, obligations or rights thereunder. It is expressly understood and agreed that the Purchaser is authorized to enter into Contract/Agreement, solely on its own behalf under the applicable laws of India. Bidder expressly agrees, acknowledges and understands that the Purchaser is not an agent, representative or delegate of the Government of India. It is further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Agreement. Accordingly, Bidder hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, VIP claims or counter claims against the Government of India arising out of the Agreement and covenants not to sue to Government of India as to any manner, claim, cause of action or things whatsoever arising of or under the Agreement."</p>	
26.	<p>Bidder hereby confirms that they are not on 'Holiday' by GAIL or Public Sector Project Management Consultant (like EIL, Mecon only due to "poor performance" or "corrupt and fraudulent practices") or banned by Government department/ Public Sector on due date of submission of bid.</p> <p>Further, Bidder confirms that neither they nor their allied agency/(ies) (as defined in the Procedure for Action in case of Corrupt/ Fraudulent/ Collusive/ Coercive Practices) are on banning list of GAIL or the Ministry of Petroleum and Natural Gas.</p>	
27.	<p>As per requirement of tender, bidder (having status as Pvt. Ltd. or Limited company) must upload bid duly digitally signed on e-</p>	



Sl.	DESCRIPTION	BIDDER'S CONFIRMATION
	portal through class-3B digital signature (DS). In case, class of DS or name of employee or name of employer is not visible in the digitally signed documents, the bid digitally signed as submitted by the person shall be binding on the bidder.	
28.	The contents of this Tender Document have not been modified or altered by Bidder. In case, it is found that the tender document has been modified / altered by the bidder, the bid submitted by them shall be liable for rejection.	
29.	<p><b>Import Content:</b> If bidder's offer is based on certain imported raw materials required for equipment / materials offered, bidder specify the following:</p> <p>(a) Bidder confirms that quoted prices are based on Merit rate of customs duty, applicable Cess and IGST as applicable. For project procurement (if specified in BDS) the quoted prices may be based on Project rate of Import Duty, in such case, bidder indicates Project Rate of Import Duty considered and included.</p> <p>(b) Owner's responsibility is only limited to furnishing of the necessary Certificate to obtain Essentiality Certificate from bidder's Administrative Ministry for availing the Project rate of Import Duty by the Bidder.</p> <p>(c) Bidder indicates Merit rate of Import duty considered and included in the quoted price (as per 'a' above).</p> <p>(d) Bidder indicates brief description / specification with itemized CIF value and country of origin of imported material.</p> <p>(e) Bidder indicates classification with tariff no. under which Vendor intends to import.</p> <p>(f) Bidder confirms that prices shall be firm on account of variation in foreign exchange rate.</p> <p>(g) Owner shall not provide any import licence.</p> <p>(h) Bidder confirms that quoted prices are after considering the input tax credit of IGST paid by the Supplier for import content.</p> <p>(i) Any upward variation due to change in Import Duty Classifications shall be absorbed by the Bidder. However, any reduction in Import Duty due to change in classification shall be passed over to Owner.</p> <p>(j) Statutory variations, if any, in the rate of Import duty upto maximum period of the contractual delivery period shall be to Owner's account. If bidder has considered Import Duty other than Merit Rate of Import Duty then Statutory variation on the Import Duty shall be payable extra on the Merit rate of Import Duty or the rate of Import Duty considered by the bidder, whichever is lower. Owner will not pay any variation on account of IGST.</p> <p>(k) The CIF Value(s) indicated by the bidder shall be deemed to be the maximum value(s) for the purpose of payment of variation in Import duty and/or other statutory variations, if any, thereon.</p> <p>(l) Variation in price due to change in Import duty rate will be dealt with separately after receipt of equipment at site, against</p>	Not Applicable



Sl.	DESCRIPTION	BIDDER'S CONFIRMATION
	documentary evidence.	
30.	Bidder confirms that they have read and understood the General Conditions of Contract – Goods available on GAIL's Tender website ( <a href="http://gailtenders.in/Gailtenders/gccs.asp">http://gailtenders.in/Gailtenders/gccs.asp</a> ) & no 'exception / deviation' anywhere has been taken in the same and that they shall abide by provisions of relevant GCC-Goods.	
31.	Bidder certifies that they would adhere to the Fraud Prevention Policy of GAIL [available on GAIL's website ( <a href="http://www.gailonline.com">www.gailonline.com</a> )] and shall not indulge themselves or allow others (working in GAIL) to indulge in fraudulent activities and that they would immediately apprise GAIL of the fraud/suspected fraud as soon as it comes to their notice. Concealment of facts regarding their involvement in fraudulent activities in connection with the business transaction(s) of GAIL is liable to be treated as crime and dealt with by the procedures of GAIL as applicable from time to time.	
32.	Whether Bidder is Startups or not	Yes / No <i>(If Yes, Bidder to submit requisite documents as specified in ITB: Clause No. 49)</i>
	In case of Start-up confirm the following: (i) Upto ten years from the date of its incorporation/ registration and (ii) If its turnover for any financial years since incorporation/ registration has not exceed Rs. 100 Crores.	
33.	Confirm that, in case of contradiction between the confirmations provided in this format and terms & conditions mentioned elsewhere in the offer, the confirmations given in this format shall prevail.	

Place:

[Signature of Authorized Signatory of Bidder]

Date:

Name:

Designation:

Seal:



**F-6**  
**ACKNOWLEDGEMENT CUM CONSENT LETTER**

**(On receipt of Tender Document/information regarding the tender, Bidder shall acknowledge the receipt and confirm his intention to bid or reason for non-participation against the enquiry /tender through e-mail/fax to Purchase Officer in GAIL who issued the Tender Document, by filling up the Format)**

To,

M/s GAIL (INDIA) LIMITED

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SUB:

TENDER NO:

Dear Sir,

We hereby acknowledge receipt of a complete set of Tender Document along with enclosures for subject item/job and/or the information regarding the subject tender.

- We intend to bid as requested for the subject item/job and furnish following details with respect to our quoting office:

Postal Address with Pin Code: .....

Telephone Number : .....

Fax Number : .....

Contact Person : .....

E-mail Address : .....

Mobile No. : .....

Date : .....

Seal/Stamp : .....

- We are unable to bid for the reason given below:

Reasons for non-submission of bid:

---

Agency's Name : .....

Signature : .....

Name : .....

Designation : .....

Date : .....

Seal/Stamp : .....



**F-7**  
**BIDDER'S EXPERIENCE**

To,

M/s GAIL (INDIA) LIMITED  
\_\_\_\_\_

SUB:

TENDER NO:

Sl. No	Description of the Supply/ Services	PO/ Contr-act No. and date	Full Address & phone nos. of Client.	Postal & nos. of	Value of Contract/ Order (Specify Currency Amount)	Date of Commence ment	Scheduled Completion/ Delivery Period (Months)	Date of Actual Compl- etion	Reasons for delay in execu- tion, if any
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	

Place:

Date:

[Signature of Authorized Signatory of Bidder]

Name:

Designation:

Seal:



**F-8**  
**CHECK LIST**

Bidders are requested to duly fill in the checklist. This checklist gives only certain important items to facilitate the Bidder to make sure that the necessary data/information as called for in the Tender Document has been submitted by them along with their offer/Bid. This, however, does not relieve the Bidder of his responsibilities to make sure that his Bid is otherwise complete in all respects.

Please ensure compliance and tick (√) against following points:

S. No.	DESCRIPTION	CHECK BOX	REFERENCE PAGE NO. OF THE BID SUBMITTED
1.0	Confirm that the following details have been submitted in the Un-priced part of the Bid		
i	Covering Letter, Letter of Submission		
ii	Copy of Bid Security		
iii	Digitally signed Tender Document along with drawings and addendum (if any)		
iv	Power of Attorney in the name of person signing the bid.		
v	Details and documentary proof required against BEC Criteria of Tender Document.		
vi	Confirm submission of documents alongwith unpriced bid as per tender requirement.		
2.0	Confirm that all forms duly filled in are enclosed with the bid duly signed by authorised person(s)		
3.0	Confirm that the price part as per Price Schedule format uploaded in e-portal.		
4.0	Confirm that annual reports & duly filled in Form F-9, if applicable and Form F-10 are enclosed in the offer for financial assessment (where financial criteria of BEC is applicable).		

Place:

[Signature of Authorized Signatory of Bidder]

Date:

Name:

Designation:





**F-9**  
**FORMAT FOR CERTIFICATE FROM BANK**  
**IF BIDDER'S WORKING CAPITAL IS INADEQUATE/NEGATIVE**

(To be provided on Bank's letter head)

Date:

To,  
M/s. GAIL (India) Limited

-----  
-----  
-----

Dear Sir,

This is to certify that M/s ..... (name of the Bidder with address) (hereinafter referred to as Customer) is an existing Customer of our Bank.

The Customer has informed that they wish to bid for GAIL's Tender No. .... dated ..... for .....(Name of the supply/work/services/consultancy) and as per the terms of the said Tender Document they have to furnish a certificate from their Bank confirming the availability of line of credit.

Accordingly M/s ..... (name of the Bank with address) confirms availability of line of credit to M/s ..... (name of the Bidder) for at least an amount of Rs. \_\_\_\_\_

It is also confirmed that the net worth of the Bank is more than Rs. 100 Crores (or Equivalent USD) and the undersigned is authorized to issue this certificate.

Yours truly

for ..... (Name & address of Bank)

(Authorized signatory)

Name of the signatory :

Designation :

Stamp

**F-10**

Page 1 of 2

**FORMAT FOR CHARTERED ACCOUNTANT CERTIFICATE/ CERTIFIED PUBLIC  
ACCOUNTANT (CPA) FOR FINANCIAL CAPABILITY OF THE BIDDER**

We have verified the Audited Financial Statements and other relevant records of M/s..... (Name of the bidder) and certify the following:

**A. AUDITED ANNUAL TURNOVER\* OF PRECEDING THREE FINANCIAL YEARS:**

Year	Amount (Currency)
Year 1:	
Year 2:	
Year 3:	

**B. NET WORTH\* AS PER AUDITED FINANCIAL STATEMENT OF PRECEDING FINANCIAL YEAR:**

Description	Year _____
	Amount (Currency)
1. Net Worth	

**C. WORKING CAPITAL\* AS PER AUDITED FINANCIAL STATEMENT OF PRECEDING FINANCIAL YEAR:**

Description	Year _____
	Amount (Currency)
1. Current Assets	
2. Current Liabilities	
3. Working Capital (Current Assets-Current liabilities)	

**\*Refer Instructions on page 2 of 2**

Notes:

- (i) It is further certified that the above mentioned applicable figures are matching with the returns filed with Registrar of Companies (ROC).
- (ii) We confirm that above figures are after referring instructions at page 2 of 2 of Format F-10.
- (iii) Practicing Chartered Accountants shall generate Unique Document Identification Number (UDIN) for all certificates issued by them

Name of Audit Firm:  
Chartered Accountant/CPA  
Date:

[Signature of Authorized Signatory]  
Name:  
Designation:  
Seal:  
Membership No.:



UDIN:

Page 2 of 2

**Instructions for Format F-10:**

1. The Separate Pro-forma shall be used for each member in case of JV/ Consortium.
2. The financial year would be the same as one normally followed by the bidder for its Annual Report.
3. The bidder shall provide the audited annual financial statements as required for this Tender document. Failure to do so would result in the Proposal being considered as non-responsive.
4. For the purpose of this Tender document:
  - (i) **Annual Turnover** shall be “Sale Value/ Operating Income”
  - (ii) **Working Capital** shall be “Current Assets less Current liabilities” and
  - (iii) **Net Worth** shall be Paid up share capital plus Free Reserves & Surplus less accumulated losses, deferred expenditure and miscellaneous expenditure not written off, if any.
5. **Above figures shall be calculated after considering the qualification, if any, made by the statutory auditor on the audited financial statements of the bidder including quantified financial implication.**
6. This certificate is to be submitted on the letter head of Chartered Accountant/CPA.

TENDER NO.: GAIL/NCR/C&P/P09/2K20-21/8000017462



F-11

**BIDDER'S QUERIES FOR PRE BID MEETING**

To,  
M/s GAIL (INDIA) LIMITED  
Sub :  
Tender No :

SL. NO.	REFERENCE OF TENDER DOCUMENT				BIDDER'S QUERY	GAIL'S REPLY
	SEC. NO.	Page No.	Clause No.	Subject		

**NOTE: The Pre-Bid Queries may be sent by fax / e-mail before due date for receipt of Bidder's queries in terms of Clause No. 8.1 of ITB.**

SIGNATURE OF AUTHORISED REPRESENTATIVE OF BIDDER: \_\_\_\_\_

NAME OF BIDDER : \_\_\_\_\_



**F-12**

**E-Banking Mandate Form**

**(APPLICABLE ONLY IN CASE BIDDER'S BANK ACCOUNT IS NOT MAPPED  
IN GAIL)**

(To be issued on vendors letter head)

1. Vendor/customer Name :
2. Vendor/customer Code:
3. Vendor /customer Address:
4. Vendor/customer e-mail id:
5. Particulars of bank account
  - a) Name of Bank
  - b) Name of branch
  - c) Branch code:
  - d) Address:
  - e) Telephone number:
  - f) Type of account (current/saving etc.)
  - g) Account Number:
  - h) RTGS IFSC code of the bank branch
  - i) NEFT IFSC code of the bank branch
  - j) 9 digit MICR code

I/We hereby authorize GAIL(India) Limited to release any amount due to me/us in the bank account as mentioned above. I/We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, we would not hold the GAIL (India) Limited responsible.

(Signature of vendor/customer)

**BANK CERTIFICATE**

We certify that ----- has an Account no. ----- with us and we confirm that the details given above are correct as per our records.

Bank stamp

Date

(Signature of authorized officer of bank)



**F-13**

**INTEGRITY PACT**

**INTRODUCTION:**

GAIL as one of its endeavour to maintain and foster most ethical and corruption free business environment, have decided to adopt the Integrity Pact, a tool developed by the Transparency International, to ensure that all activities and transactions between the Company (GAIL) and its Counterparties (Bidders, Contractors, Vendors, Suppliers, Service Providers/Consultants etc.) are handled in a fair and transparent manner, completely free of corruption. Accordingly, an MOU on Integrity Pact has been signed on 23.07.2007 by GAIL with Transparency International India.

Considering the above, the details mentioned at attached Annexure-1 are applicable as stated in Instruction to Bidders of Bid Document in addition to the existing stipulation regarding Corrupt and Fraudulent Practices.

The attached copy of the Integrity Pact at Annexure- 2 shall be included in the Bid submitted by the bidder (to be executed by the bidder). In case a bidder does not sign the Integrity Pact, his bid shall be liable for rejection.



**ANNEXURE-1**

**Bidder is required to sign the Integrity Pact with GAIL as per format & terms and conditions enclosed with tender. In case a bidder does not sign the Integrity Pact, his bid shall be liable for rejection.**

**I COMMITMENTS AND OBLIGATIONS OF THE “COUNTERPARTY”**

- a) The Counterparty, directly or indirectly (through agent, consultant, advisor, etc.), shall not pay any bribe/ influence or give undue/ unlawful benefit to anyone to gain undue advantage in dealing with GAIL.
- b) The Counterparty will not engage in collusion of any kind including price fixation etc. with other Counterparts.
- c) The counterparty will not pass GAIL’s confidential information to any third party unless specifically authorized by GAIL in writing.
- d) The Counterparties shall promote and observe best ethical practices within their respective organizations.
- e) The Counterparty shall inform the Independent External Monitor.
  - i) If it received any demand, directly or indirectly, for a bribe/ favour or any illegal gratification/ payment / benefit;
  - ii) If it comes to know of any unethical or illegal payment / benefit;
  - iii) If it makes any payment to any GAIL associate.
- f) The Counterparty shall not make any false or misleading allegations against GAIL or its associates.

**II VIOLATIONS & CONSEQUENCES:**

- a) If a Counterparty commits a violation of its Commitments and Obligations under the Integrity Pact Programme during bidding process, their entire Earnest Money Deposit/ Bid Security, would be forfeited and in addition, they would be banned from the GAIL business in future as per Section 3.
- b) In case of violation of the Integrity pact by Counterparty after award of the Contract, GAIL shall be entitled to terminate the Contract. Further, GAIL would forfeit the security deposits/ Contract Performance Bank Guarantee.
- c) In case it is found that the Counterparty has made any frivolous, untrue and misleading allegations against GAIL or its associates, GAIL reserves its right to initiate criminal proceedings against the violating Counterparty and may also impose exemplary cost for the same



**INDEPENDENT EXTERNAL MONITORS (IEMS)**

Presently the panel consisting of the following Independent External Monitors (IEMs) have been appointed by GAIL, in terms of Integrity Pact(IP) which forms part of GAIL Tenders / Contracts.

- i) Shri Ajit Mohan Sharan (e-Mail ID : [ams057@gmail.com](mailto:ams057@gmail.com))
- ii) Shri Sanjeev Behari (e-Mail ID : [saloni\\_behari@yahoo.co.in](mailto:saloni_behari@yahoo.co.in))
- iii) Dr. Meeran Chadha Borwankar (e-Mail ID: [mcborwankar@gmail.com](mailto:mcborwankar@gmail.com))

This panel is authorised to examine / consider all references made to it under this tender. The bidder(s) , in case of any dispute(s) / complaint(s) pertaining to this tender may raise the issue either with the designated tender issuing officer or Nodal Officer (presently Shailendra Chaurasia, DGM (C&P)- e-Mail [skchaurasia@gail.co.in](mailto:skchaurasia@gail.co.in)) in GAIL or directly with the IEMs on the panel or IEM c/o Chief Vigilance Officer, GAIL ( India) Limited, GAIL Bhawan, 16, Bhikaiji Cama Place, R.K. Puram, New Delhi – 110066.





ANNEXURE-2

**INTEGRITY PACT**

(To be executed on plain paper)

Between **GAIL (India) Limited**, a Government of India Public Sector, (here-in-after referred to as “Principal”).

**AND**

\_\_\_\_\_ (here-in-after referred to as “The Bidder/ Contractor”).

(Principal and the Bidder / Contractor are here-in-after are referred to individually as “Party” or collectively as “Parties”).

**PREAMBLE**

The Principal intends to award under laid down organizational procedures, contract/s for \_\_\_\_\_. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal will appoint Independent External Monitor (s) (in consultation with Central Vigilance Commission) who will monitor the tender process, the execution of the contract etc. for compliance with the principles mentioned above.

**Section 1 – Commitments of the Principal**

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following Principles in this regard:-
  - i) No employee of the Principal, either in person or through family members, including relatives, will in connection with the tender for or the execution of a contract, demand or accept a promise for or accept for him/herself or for a third person, any material or immaterial benefit to which he/she is not legally entitled.
  - ii) The Principal shall, during the tender process treat all Bidders with equity. The Principal undertakes and ensures that before and during the tender process shall provide and share the same information to all Bidders and will not provide to any Bidder confidential / additional information through which one particular Bidder could take an advantage in relation to the tender process or the contract execution.



- iii) In case, any misconduct on the part of any official (s) is reported by the BIDDER to the PRINCIPAL with full and verifiable facts and the same is prima facie found to be correct by the PRINCIPAL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the PRINCIPAL and such person shall be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by the PRINCIPAL the proceedings under the contract would not be stalled.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

**Section 2 – Commitments and Undertakings by the Bidder/Contractor**

1. The Bidder / Contractor commits and undertakes to take all measures necessary to prevent malpractices & corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution till the validity of Integrity Pact:
- i) The Bidder / Contractor undertakes not to, directly or through any other person or firm offer, promise or give or influence to any employee of the Principal associated with the tender process or the execution of the contract or to any other person on their behalf any material or immaterial benefit to which he / she is not legally entitled in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract till the validity of Integrity Pact.
- ii) The Bidder / Contractor undertakes not to enter into any undisclosed agreement or understanding, whether formal or informal with other Bidders. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other action to restrict competitiveness or to introduce cartelization in the bidding process.
- iii) The Bidder / Contractor undertakes not to commit any offence under the relevant Anti-corruption Laws of India. Further, the Bidder / Contractor will not use improperly any information or document provided by the Principal as part of the business relationship regarding plans, technical proposals and business details, including information contained or transmitted electronically for the purposes of competition or personal gain and will not pass the information/document so acquired on to others.



- 
- iv) The Bidder / Contractor will, when presenting his bid undertakes to disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- v) The bidder (s)/ Contractor (s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the bidder (s)/ contractor (s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
- vi) Bidder(s) / Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.
2. The Bidder/ Contractor shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
3. The Bidder/Contractor commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
4. The Bidder/Contractor shall not lend to or borrow any money from or enter into any monetary dealing or transactions, directly or indirectly, with any employee of the Principal.
5. In case of any allegation of violation of any provision (s) of this pact or payment of commission, the Principal or its agencies shall be entitled to examine all the documents including the book of accounts of the Bidder and the Bidder shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.
6. The Bidder/ Contractor will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of contract.
7. The Bidder/ Contractor will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

**Section 3 – Disqualification from tender process and exclusion  
from future contracts**

1. If it is found that the Bidder / Contractor or any one employed by it has committed a transgression through a violation of any provisions of Section 2 so as to put his reliability or credibility into question, the Principal shall be entitled to disqualify such Bidder / Contractor from the tender including banning such Bidder / Contractor from entering



into any GAIL's future contract/ tender processes **for a period specified in GAIL's "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices"** and also to terminate the contract, if already signed, on that ground as per provision of GAIL's "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices". Further, the period of banning shall be as per GAIL's policy and the decision of the Principal in this regard will be final and binding on the Bidder/ Contractor.

2. A transgression is considered to have occurred if the Principal after due consideration of the available evidence, concludes that there is a transgression of the provisions of the Pact.
3. The Bidder with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
4. Principal is entitled to recover all sums paid by Bidder/ contractor to any middleman or agent or broker with a view to securing the contract.

In cases where irrevocable Letters of credit has to be established in respect of any contract signed by the Principal with the Bidder, the same shall not be opened.

Principal is entitled to forfeit the Performance Bond clearly assigning reason in case Bidder/ Contractor violates this Pact.

#### **Section 4 – Forfeiture of EMD / Security Deposits**

1. If due to transgression as per the provisions of the Pact, the Principal has disqualified the Bidder from the tender process prior to the award in terms of Section 3, the Principal is entitled to forfeit earnest money deposit / bid security money. In addition to this, such Bidder/Contractor shall also be banned from the future business with Principal with consequential actions as per provisions of GAIL's "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices".

#### **Section 5 – Previous transgression**

1. The Bidder declares that no previous transgression has occurred during the last three years immediately before signing of this Integrity Pact, with any other Company in any country in respect of any corrupt practices envisaged hereunder or with any other Public Sector Enterprise / Undertaking or any Government Department in India that could justify Bidder's exclusion from the tender process.



2. If the Bidder makes incorrect statement on this subject, he shall be disqualified from the tender process or the contract, if already awarded, could be liable to be terminated on this ground and other actions can be taken by GAIL as per GAIL's "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices"

In case of any transgression in the last three years from the date of signing of Integrity Pact, Bidder to provide the details of same in their bid.

### **Section 6 – Equal treatment to all Bidders / Contractors / Subcontractors**

1. The Bidder / Contractor undertakes to demand from all its sub-contractors, if any, an undertaking and commitment in conformity with this Integrity Pact, and to submit it to the Principal before signing of the contract.

In case of Sub-Contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.

2. The Principal will enter into agreements with similar conditions, as stipulated herein, with all Bidders, Contractors and Subcontractors.
3. The Principal shall disqualify from the tender process all Bidders who do not sign this Pact or violate any of its provisions.

### **Section 7 – Criminal charges against violating Bidders / Contractors / Sub-contractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption of an offence as defined in Chapter IX of the Indian Penal Code 1860 or prevention of corruption Act 1988 and amendments thereof or any other enacted statute for prevention of corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Vigilance Office / Department for initiating appropriate action for above.

### **Section 8 –Independent External Monitor / Monitors**

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.



3. The Bidder/ Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Sub-contractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder / Contractor / Sub-contractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this Pact he will so inform the Management of the Principal and request the Management to discontinue or heal the violation or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 10 days as far as possible from the date of reference or intimation to him by the 'Principal' and should the occasion arise, submit proposals for taking corrective measures.
7. Remuneration payable to Monitor (s) shall be borne by Principal .
8. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
9. The word 'Monitor' would include both singular and plural.
10. Independent External Monitor shall be required to maintain confidentiality of the information acquired and gathered during their tenure / role as Independent Monitor. Any breach in this regard would be subject to the legal judicial system of India.



11. The Independent External Monitors shall be responsible to oversee the implementation of Integrity Pact Program to prevent corruption, bribes or any other unethical practices in the GAIL.
12. The monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairperson of the Principal and recuse himself / herself from that case.
13. In case of any complaints referred under IP Program, the role of IEMs is advisory and would not be legally binding and it is restricted to resolving the issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition on bias towards some bidder.
14. Issues like warranty / guarantee, etc. shall be outside the purview of IEMs.

#### **Section 9 – Pact Duration**

The provisions of this Pact shall come into effect from the date of signing of this Pact by the both parties. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made / lodged by either party during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by the Chairperson of the Principal.

#### **Section 10 – Miscellaneous provisions**

1. This agreement is subject to Indian Law. Place of performance and exclusive jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
2. Changes and supplements as well as termination notices, if any, need to be made in writing. Side agreements have not been made.
3. If the Contractor / Bidder is a partnership concern or a consortium, this agreement must be signed by all partners or consortium members.
4. In case any or several of the provisions of this agreement turn out to be void, the remainder of this pact shall remain valid. The parties to this pact however, shall strive to come to an agreement to their original intentions in such a case.



5. The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provision of the extant law in force relating to any civil or criminal proceeding.

A handwritten signature in blue ink is visible within a rectangular box. The signature appears to be 'Jethu'.

-----  
(Name & Designation)  
For the Principal

-----  
(Name & Designation)  
For the Bidder/Contractor

Place -----

Witness 1: -----

Date -----

Witness 2: -----





**F-14**  
**FREQUENTLY ASKED QUESTIONS (FAQs)**

SL.NO.	QUESTION	ANSWER
1.0	Can any vendor quote for subject Tender?	Yes. A Vendor has to meet Bid Evaluation Criteria given under Section II of Tender document in addition to other requirements.
2.0	Should the Bid Evaluation Criteria documents be attested?	Yes. Please refer Section II of Tender document
3.0	Is attending Pre Bid Meeting mandatory.	No. Refer Clause No. 17 of Instruction to Bidders of Tender Document. However attending Pre Bid Meeting is recommended to sort out any issue before submission of bid by a Bidder.
4.0	Can a vendor submit more than 1 offer?	No. Please refer Clause No. 4 of Instruction to Bidders of Tender Document.
5.0	Is there any Help document available for e-Tender.	Yes. Refer Annexure III to Instructions to Bidders of Tender Document and FAQs as available on GAIL E-Tender portal.
6.0	Are there are any MSE (Micro & Small Enterprises) benefits available?	Yes. Refer Clause No. 40 of Instructions to Bidders of Tender Document.
7.0	Are there are any benefits available to Startups?	Refer Clause No. <a href="#">498</a> of Instructions to Bidders of Tender Document.



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All the terms and conditions of Tender remain unaltered.

## **SECTION-IV**

# **GENERAL CONDITION** **OF CONTRACT-GOODS**

**(is available on GAIL's**  
**tender**

**website:https://gailtenders.in**  
**/Gailtenders/gccs.asp)**



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# **SECTION-V**

## **SPECIAL CONDITION OF** **CONTRACT (SCC)**



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## 1.0 GENERAL

- 1.1 Special Condition of Contract shall be read in Conjunction with the General Conditions of Contract, specification of work, Drawing and any other documents forming part of this contract wherever the context so requires. Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the contract so far as it may be practicable to do so. Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provisions of the General Condition of Contract and shall to the extent of such repugnancy, or variations, prevail.
- 1.2 Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities, it is understood that the contractor shall do so at his cost and the value of contract shall be deemed to have included cost of such performance and provisions, so mentioned. The jobs covered under the "Scope of Work" of the Contract are to be completed in all respect at the earliest, without compromising on quality.
- 1.3 Bidder may visit the site for actual assessment of the job to be executed.
- 1.4 All the jobs shall be carried out as per good engineering practice and to the satisfaction of the Engineer in charge and site in charge.
- 1.5 Job shall be carried out as per the site conditions after the approval of SIC or as per direction of the EIC.
- 1.6 After the completion of job at respective region under each maintenance base, vendor has to submit the completion report and service report to SIC (Site in charge) (In soft as well as Hard) and a signed report by SIC of that respective region to EIC (In soft as well as Hard) of the contract at NCR (O&M).
- 1.7 In case of an irreconcilable conflict between Indian and other applicable standards, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings or Schedule of Rates, the decision of GAIL/EIC shall be final.
- 1.8 It will be Contractor's responsibility to bring to the notice of Engineer-In-Charge any irreconcilable conflict in the contract documents before starting the work(s) or making the supply with reference which the conflict exists.
- 1.9 In the absence of any specifications covering any, material, design of work(s) the same shall be performed/ supplied/ executed in accordance with Standard Engineering Practice as per the instructions/ directions of the Engineer-In-Charge, which will be binding on the Contractor.
- 1.10 The contract shall be valid for a period of (08) eight months from the date of award of work (LOA/FOA). GAIL reserves the right to terminate the contract without assigning any reason during the currency of the contract period by giving 30 days' notice to the contractor.



- 1.11 Contractor intimate any issues (if any) related to the contract / sites to EIC on quarterly basis. Authorized representative of contractor will visit to EIC or telephonically update on any contractual issue resolution on quarterly basis. Also, GAIL will ask for letter to submit / declaration that there are no contractual issues till date on quarterly / half yearly basis along with the RA bills.
- 1.12 Work Measurement, BOM (Bill of material / services) may be created on GAIL's online portal i.e. ANJANI for which GAIL will provide orientation training / module to authorized person of contractor. All the site measurement, BOM will be approved by SIC's concerned and contractor will upload all the required documents along with measurement for approval. Contractor will generate invoices only after the approval of measurement from concerned SIC's.
- 1.13 The quantity in SOR are tentative in nature and may vary (Increase / Decrease) as per site requirement.

**2.0 INTRODUCTION:** GAIL (India) Ltd is flagship natural gas Company. Natural Gas is a new age fuel. Natural Gas is the cleanest of fossil fuels. Natural Gas satisfies most of the requirements for fuel in a modern-day industrial society, being efficient, non-polluting and relatively economical. Natural Gas requires a strong distribution network to not only support existing demand, but also fuel future demand. In line with this, GAIL is supplying Natural gas to its customers in NCR region through the GAIL, NCR Gas O&M pipeline network (sizes 4" to 48") which is maintained by 13 maintenance bases spreads in 7 States as below:

1. Delhi State
  - a. Desu Terminal
  - b. Bawana Terminal
2. Uttar Pradesh State
  - a. Dadri
  - b. Ghaziabad (Bahmeta)
3. Haryana State
  - a. Faridabad
  - b. Gurugram
  - c. Dharuhera
  - d. Bahadurgarh
4. Uttarakhand State
  - a. Kashipur
  - b. Haridwar
5. Punjab State
  - a. Ludhiana
  - b. Bhatinda
  - c. Nangal
6. Rajasthan State
  - a. Dharuhera regional network pipelines



7. Himachal Pradesh  
a. Nangal regional network pipelines.

NCR (O&M) is taking care of approximate 1847 KMs Pipeline network and with approx. 176 small & big industries customers. These pipelines and customers are maintained by 13 maintenance bases as per the given details and HQ of these bases at Noida (UP).

Pipeline jurisdictions of above terminal bases are defined and are interchangeable according to the maintenance suitability and convenience. Also, the customers are increasing day by day according to the City Gas distribution connections from the existing network, as per the technical suitability.

- 3.0 TERMINAL BASES ADDRESS:** GAIL, NCR having its Head Quarter at present at NCR Office, Jubilee Tower, Sector-1, Noida (U.P.) and following are 13Nos. of maintenance bases:

**1. DESU:**

GAIL (India) Ltd, DESU Terminal, Behind Pragati Power Plant, I.P. Estate, Ring Road, New Delhi -11002, Phone: 011-23379094, 011-65397226

**2. Dadri:**

GAIL (India) Ltd, C/o NTPC Complex, Vidyut Nagar, Dadri, Distt – Gautam Buddh Nagar -201008, Phone: 0120 -2671224

**3. Bawana:**

GAIL (India) Ltd, PPCL Complex, Sector-5, DSIIDC, Bawana Industrial Area, Bawana, Delhi-110039, Phone – 011-27791352

**4. Faridabad:**

GAIL (India) Ltd, C/o NTPC Faridabad Complex, Faridabad Phone – 877 -330

**5. Bahadurgarh:**

GAIL (India) Ltd, HNG/HIS Terminal, Bahadurgarh, Distt- Jhajjar (Haryana) - 242021 Phones: 01276-232732

**6. Ghaziabad:**

GAIL (India) Ltd, P.R Station, Shahpur, Bamheta, Near Lal Kuan, Distt. –Ghaziabad. Phone – 0120-3250606

**7. MUL-Gurugram:**

GAIL (India) Ltd, C/o Maruti Udyog Ltd., Palam-Gurgaon road, Gurgaon, Haryana-122015 Phone-0124-2341721



**8. Bhatinda:**

GAIL (India) Ltd, Gas Receiving station, Sibian Road, Near NFC Bhatinda, Punjab

**9. Kashipur:**

GAIL (India) Ltd, Gas Receiving Terminal, Mahuakheda, Near Lohia Pul, Distt-Kashipur, Uttarakhand.

**10. Ludhiana:**

GAIL (India) Limited, Sandhu Tower-11, 4<sup>th</sup> Floor, Gurdev Nagar, Ferozepur Road, Ludhiana-141001 (Punjab)

**11. Nangal:**

GAIL (India) Ltd, Gas Receiving Terminal NFL, Naya Nangal Distt- Roop Nagar, Punjab.

**12. Dharuhera**

GAIL (India) Ltd, Fortune Hotel campus, Delhi –Jaipur Highway, Dharuhera, Haryana

**13. Haridwar**

GAIL (India) Limited, Haridwar Terminal, Uttarakhand.

**4.0 COMMUNICATION ADDRESS:**

M/s GAIL (INDIA) Limited  
NCR Gas O&M Head Quarter  
2<sup>nd</sup> Floor, GAIL Infohub Building, GAIL Jubilee Tower campus,  
Sector-1, Noida (U.P.)- 201301

**5.0 CONTRACT PERIOD:** The Contract period shall be Eight (8) months (for SITC) + 5 year (for AMC) from the date of issue of work order/FoA.

This time period inclusive of submission of LOA/FoA acceptance, PBG submission, prelim. Visit of vendor authorized person at all the sites, Submission of all design documents as per Technical mentioned in the SOW document for approval to GAIL, GAIL's approval/remarks towards technical submission, Correction as per remarks etc. in document and resubmission, Material supply at site as per the approval, material inspection in totality, Installation start work at site, Commissioning & Testing at site and operation (solar generation) start at site, including the net-metering (meter installation) with the respective state authority.



The activity of Permission, visits and any kind of other work towards CEA, Electricity Boards permission, follow-ups, inspection etc. also be done in between simultaneously. All works of any kind of follow-up, permission, approval, audit, inspection, consent, Agreement etc. which is required to complete the work in totality will be considered part of it.

The Contract Period mentioned above inclusive all the activities mentioned detailed above or anything misses but part of the job awarded.

AMC period is 5 years which is considered to be starts after completion of 1 year warranty period after commissioning of all system of all sites.

**6.0 DEFECT LIABILITY PERIOD:**

Since this is included the Generation Guarantee for each year (as mentioned in SOW) & AMC for next 5 years. In this case, the DLP will be calculated as below:

Commissioning Date of Last Solar site + 1-year Warranty period + 5 years i.e. generation Guarantee Period + 3 Months.
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Since the complete project is considered a single project so the Final contract completion date of the contract will be considered with the “**Last Solar System commissioning date at site**” (from the date by which Solar generation benefit comes in the GAIL’s account) for all the system.

The warranty for the period (for all the Solar systems) of 1 year shall starts from the Final commissioning date of the project.

**7.0 MOBILIZATION ADVANCE:** No mobilization advance shall be paid to the contractor under this contract.

**8.0 EVALUATION METHODOLOGY:** The bid evaluation shall be done on overall L1 basis (net of available ITC w.r.t. GST).

**9.0 SECURED ADVANCE ON MATERIAL:** No Secured Advance against any material for executing the job at site payable under this contract.

**10.0** Only well trained & experienced professionals shall be deployed so that they are competent to do the jobs as per SOW and as per the satisfaction of the Engineer In-charge / Site In charge / Station in Charge.

**11.0 PAYMENT TERMS:**





- 11.1 Payment shall be made against the submission of final report duly certified by respective site in-charge or assigned GAIL employee from site.
- 11.2 Deduction of statutory tax shall be made from the bills as per the rules.
- 11.3 Bill to & Ship to in the Invoice shall be same as per state-wise site / terminal work execution.
- 11.4 Payment shall be made within 15 (fifteen) days by GAIL on completion of work after necessary
- 11.5 Payment Shall be made part-wise as below:
- o Part-wise RA bill (Individual site-wise) can be submitted after as below mentioned:

1	<p><b>40%</b> - Against 100 % Supply &amp; 100% Material / items physical inspection at each individual site according to the detailed “Bill of Material”. Certification will be done by GAIL’s person at site as per the joint inspection along with Vendor authorised site in charge.</p> <p>“Bill of Material” means all materials / items supply according to the design document approval which broadly includes SPV Solar Modules, Module Mounting structure with all hardware, Wires. DC and AC Cables, ACDB, DCDB, String Inverters, Earth Strips, Earth cable, Earthing Station, LA with surge counter, LA cable, MC4 conductor, Conduit pipe, Cable tray, lugs, Cable tie, Communication Cable, Weather Monitoring Station, Data logger, RPR (if applicable for that particular site).</p>
2	<p><b>40%</b> - Against 100% installation, Commissioning, Testing and Generation metering start of that particular site which further includes complete site clearance as per the instruction of GAIL’s site in charge. Installation of all Warning stickers, underground cable maker, Identification / marking / Paint marking on structure, DCDB, ACDB etc.</p>
3	<p><b>20%</b> - After completion of all the works in totality at all the sites and declaration of 100% work completion of all the sites including compliances of all statutory works i.e. permission, information, inspection, any statutory charge deposit, net energy metering agreement (if applicable for site), net metering meter installation, joint visits, all document submission to site.</p> <p>Documents: all design and as built-documents, warranty certificate of each system / equipment, detailed maintenance, monitoring manual. Detailed report of each sites including the previous and present coloured photos with consist design philosophy, site visit reports etc.</p> <p>Site clearance means all material removal (Site restoration, land restoration, cleaning) of site and handing over the site to GAIL site in charge. All the documents shall be submitted in soft (In DC or PAN Drive) at each site as well as in HARD copy – 2 SETS. At NCR office; all the system HARD copy &amp; Soft copy shall be submitted – 1 SET.</p>



- State-Wise RA bill can also be submitted as per payment plan defined along with Memorandum of Payment and Abstract of work.

Payment shall be released only through 'e-banking' by "In-charge [F&A] – GAIL (India) Limited, NCR", within fifteen [15] days of submission of Bills duly verified from sites and certified by "EIC". Payment shall be released thru e-banking in any bank. No other mode of payment is acceptable. Contractor while submitting their bid should advise their account in any branch of above bank that has the e-banking facility.

Necessary recoveries and all statutory deductions shall be made from the payments to the Contractor at the relevant rates. [As per the norms, rules and regulations laid down by Government].

**12.0 PRICE REDUCTION SCHEDULE:** It shall be applicable as per GCC on the entire value of work order.

**13.0 SOLAR GENERATION GUARANTEE:** Solar generation

**14.0** The Contractor may deploy 'two [02] or more teams simultaneously at different sites / locations for the execution of job under the contract' with sufficient manpower along with all Necessary tools, tackles and equipment's to carry out the job simultaneously. This is only because of completion of the work in time bound manner.

Contractor is not allowed to left any of the running site and to start work at any new site without completion of previous site of work. If different teams are lined-up / mobilized for different works / specialization like civil / mechanical / testing / earth move etc. than vendor has to submit detailed planning of the same to EIC and GAIL's site in charge to avoid confusion / conflict etc. at any stage.

The locations will be decided by "EIC" / "Site-in-Charge" mutually with the vendor. Party is sole responsible for the transportation of man, material & their lodging arrangements etc. & its safety & security at their own cost during the execution of the job.

**15.0 COMPENSATION FOR EXTENDED STAY:**

- No compensation for extended stay is payable to contractor for the execution of the job under the contract.
- In case of work delayed from the estimated time due to any reason cloudy weather, rain, material unavailability or any unforeseen reason etc. GAIL shall not pay for any kind of compensation.



- 16.0 GAIL will not provide any accommodation, office, transport, boarding or warehouse to the contractor/Vendor on any account in NCR O&M HQ for any related activities/work.
- 17.0 **OBLIGATIONS:** GAIL, will provide/arrange the following information, services and assistance to carry out the audit, at no cost to party:
- GAIL shall provide all necessary data, drawings and documents as required time to time as per availability.
  - An opening meeting for the job will be done at GAIL, NCR O&M Head Quarter, wherein the party will give the methodology / Procedure of complete programme. Thereafter a GAIL's internal team shall be interacting for the smooth carryout of entire job.
  - All recommendations should be practically feasible and should confirm to applicable IS/IEC codes and its amendments time to time; which is followed in Oil & Gas industries.
- 18.0 **CONTRACT VALUE:** The value of services under the contract shall be firm during the contract period & as per attached SOR, SOW & SCC. Rates are comprehensive and include all costs required for the execution of the job. SOR quantities are tentative in nature and may vary both ways. Hence, payment shall be done as per actual execution of the quantities & as per certification of EIC of respective site.
- 19.0 **COMPLIANCE OF EPF AND ESIC/WCI:** Bidder must have Employee Provident Fund (EPF) & Employees State Insurance Corporation (ESIC) registration in its name. In case of "ESIC NOT IMPLEMENTED AREA", an undertaking to be furnished by the bidder with technical bid that the same shall be governed by "Workmen's Compensation Insurance (WCI)". The Contractor should produce necessary valid PF & ESIC code and registration copy duly attested by notary before commencement of work. If not covered under ESIC Act, the Contractor should take appropriate Workmen compensation Insurance Policy (WCI) and submit a copy of the same to GAIL before commencement of the work.
- 20.0 **TERMINATION & NOTICE PERIOD FOR TERMINATION OF THE CONTRACT:** As per GCC.
- 21.0 The Contractor is required to submit copies of Electronic Challan cum Return (ECR)/ Electronic Challan along with online uploaded list of workers/members for the proof of remittance of Employee Provident Fund (EPF) and Employee State Insurance (ESI) contributions with respective authorities for the contract/regular workers engaged by him for this contract while submitting the Bills. In case, they are not covered under ESIC, the contractor shall arrange to cover all his workmen under



Workmen's compensation insurance (WCI) and shall submit the copy of the same before the start of the job.

- 22.0 PRADHAN MANTRI SURAKSHA BIMA YOJANA (PMSBY) AND PRADHAN MANTRI JEEVAN JYOTI BIMA YOJANA (PMJJBY):** Contractor shall ensure that all its personnel deployed under this contract have obtained additional insurance coverage under the Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) through the participating banks and submit the proof of such insurance coverage to the satisfaction of GAIL. The cost of the insurance premium amount for both the above schemes shall be borne by the contractor giving evidence/proof to GAIL in this respect and Contractor shall suitably consider the same in their bid. Both the schemes are to be regulated continuously on yearly basis and the same should be renewed on each successive relevant date in subsequent years.
- 23.0 PERFORMANCE BANK GUARANTEE (PBG):** PBG @ 10% of total basic contract value (as per GCC) up to the total contract period + DLP + 3 Months.
- 24.0 SAMPLE CATALOGUE & TEST CERTIFICATE:** Sample Catalogue to be provided along with the offer. Test certificates along with all other maintenance manual, warranty / guarantee certificate to be provide during commissioning of the system.



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# **SECTION-VI**

# **SCOPE OF WORK**



**1.0 SITE INFORMATION:** It is understood that before quoting the rates, the contractor has visited the work site and has acquainted himself fully with the nature and quantum of work to be done. Ignorance of this, after award of contract will not be considered. It is understood that the scope of work shall include, alias, the carrying out Solar PV installations of any / all sites as per the terms and conditions of contract documents. The contractor shall be responsible to complete the entire work in all respects and any of the work necessary / essential to complete the job.

**2.0 SCOPE OF WORK:** Scope of work consist as per the **detailed enlisted separately in the document**. GAIL will provide the detailed information to contractor as below in the kick-of meeting:

Sr. No.	Details	Information
1	<b>Station Name, Address etc.</b>	
2	Administrative Building Size where Solar provided (L*W*H in Meter)	
3	Existing Solar availability- if any. (Available / Not Available)	
4	Drawing of existing complete earthing lay-out for station. (Available / Not Available)	
5	Tentative area of Terminal Base / Site Station (L*W in meter), plot size, Google image etc.	
6	Building LA min. 2 Nos. earth Pits are placed Diagonal or one side? (Yes or No)	
7	Station Google GPS Coordinates.	
8	Available Soil resistivity data (if available with GAIL)	

Any other data which is required as base information before start / planning of the site visit will be provided by GAIL. The state wise changes in SOW quantities will be done as per GAIL's requirement anytime.

**2.1 CONTRACTOR'S SCOPE:**

The detailed SOW is as below:

SOW No.	Detailed work Description
10	<b><u>Design, Supply, Installation, Testing &amp; Commissioning of 25KWp (10Nos.) grid tied and with RPR, roof-top Solar PV plant including 5 Yrs. AMC with generation Guarantee:</u></b>



Following items/actions shall be involved in the project (refer tender document for detailed info and technical specifications):

1. Engineer Field Visit of all the sites, with complete dimension, details collection from site.
2. Design & Engineering, of the proposed system.
3. Design approval from GAIL India Ltd.
4. Submission of Material documents as per GAIL's tender document specifications.
5. Client Factory Inspection after successful acceptance of all the documents.
6. Material Supply as per the approval from GAIL at site, Material verification at each site according to BOM for individual system.
7. Installation, Testing & Commissioning of 25KWp Solar System (Roof-top) in GAIL NCR Region at each site mentioned below:
  - A. GAIL Terminal Bawana – Delhi
  - B. GAIL Bhatinda – Punjab
  - C. GAIL Terminal Haridwar – Uttarakhand
  - D. GAIL Terminal IP-04, BNPL Ludhiana – Punjab
  - E. GAIL Terminal Kashipur – Uttarakhand
  - F. GAIL Terminal Nangal – Punjab
  - G. GAIL Terminal Rudrapur – Uttarakhand
  - H. GAIL Terminal SV-01 Jodhan – Punjab
  - I. GAIL Terminal SV-09, Khanna – Punjab
  - J. GAIL Terminal DESU, Delhi – Delhi

(The above-mentioned Locations are final tentatively, GAIL may change one or two locations in later stage as per requirement but the size & rating of the system will be the same).

8. Following are the major SPV components (refer BOM and tender doc for details)
  - i. Monocrystalline perc Solar PV modules of equal and more than 330Wp capacity each.
  - ii. String Inverter of more than 98% EURO efficiency



- iii. HDG (85 micron) Solar PV Structure as per IS 800/801 and IS 875 part03
- iv. Solar PV structure Foundation (refer Tender document)
- v. Single Core Cu DC cable 4/6 sq.mm Flexible solar DC cable, rated voltage 1.5 KV, electron beam cross linked polymer.
- vi. 4C Cu XLPE 1.1 kV AC Cable, (Armored)
- vii. DCDB - With DC SPD (1000V) type 02 and 16A curve C 2P MCB (1000V) at each string in a polycarbonate IP65 (min) Box.
- viii. ACDB - With SPD-Type02, suitable MCB/MCCB, Phase Indicator & MFM, In polycarbonate IP-65 (min) Box.
- ix. Lightning IS-62305 and Earthing IS 3043 protection equipment.
- x. Weather Monitoring System - 1 no. with each system mono-crystalline Si based Reference Cell, 1no. of Module temperature sensor & ambient temperature sensor each.
- xi. Remote Monitoring System and integration with existing SCADA system
- xii. Automatic Reverse Protection Device (RPR)- wherever applicable.
- xiii. Earthing & Telecommunication work.
- xiv. Testing of equipment's, Painting of EP's chamber and markers etc. including the marking as per instruction.
- xv. Training at GAIL's personal on functioning, Operation, Troubleshooting etc.
- xvi. Performance Guarantee, Warranty /Guarantee.
- xvii. Net Energy metering (if applicable) or RPR installation.
- xviii. Testing on PCU (Power Conditioning Unit).

The details given here is only indicative for showing the requirement, the detailed technical Specifications pertains to each item / equipment's etc. as per tender document.

- 9. Handing over all project document to GAIL India Ltd.
- 10. Other post installation services as per tender document Including Freight charges.
- 11. Warranty Period - 1 year after successful commissioning of all sites.
- 12. Any statutory clearance fees/statutory charges shall in the scope of Vendor. All the receipt shall be in the name of GAIL (India) Limited. As per requirement, GAIL would give letter or signed application form in case of requirement.
- 13. As built Auto-Cad drawing of layout, GAD and complete system as per requirement.
- 14. Submission of Documents as per requirement mentioned.





	<p>15. Clearance of sites as per Site in charge satisfaction.</p> <p>16. Comprehensive AMC for the period of next 5 years after completion of Warranty period along with Generation Guarantee as per tender terms and conditions.</p>
<p>The above 10 Nos. of solar system will be with Generation Guarantee.</p>	
20	<p><b><u>Design, Supply, Installation, Testing &amp; Commissioning of 3KWp (1Nos.) off-grid Solar PV plant:</u></b></p> <p>3KVA solar System (Roof-top / Ground Mounted) with its Solar Charge Controller I/P from Solar &amp; Output to charge Battery Bank as well Load; integration provision with FCBC which runs on Grid power.</p> <ol style="list-style-type: none"> <li>1. Capacity- Minimum 3KWp or Higher, 9+9 solar modules in parallel or other arrangement.</li> <li>2. Total Array- 02 Nos., Single array Voltage- <math>35.2 \times 9 = 316.8</math> volt (Single Array Voltage shall be same i.e. 316.8 VDC but Nos. of SPV panels may be changed as per current market advancement etc.)</li> <li>3. Single Solar module detail as under:             <ol style="list-style-type: none"> <li>i. Pmax. – Min. 165 Watt or higher</li> <li>ii. Pmin. -- Min. 160 Watt or higher</li> <li>iii. VDC -- 35.2</li> <li>iv. Current- 4.7 Amp</li> </ol> </li> <li>4. Existing Battery Bank: SMF-VRLA cells 110 cells (2VDC each) = 220VDC</li> </ol> <p><b>A. Location: SV-02 Nayagaon, CGPL Pipeline (Haryana) under Faridabad Terminal.</b></p> <ol style="list-style-type: none"> <li>5. As built Auto-Cad drawing of layout, GAD and complete system as per requirement.</li> <li>6. Solar Panel, DC cable</li> <li>7. Submission of Documents as per requirement mentioned.</li> <li>8. Clearance of sites as per Site in charge satisfaction.</li> </ol>



30	<p><b><u>Design, Supply, Installation, Testing &amp; Commissioning of 25KWp (1Nos.) off-grid Solar PV plant:</u></b></p> <p>25KWp solar System (Roof-top / Ground Mounted) with its Solar Charge Controller I/P from Solar &amp; Output to charge Battery Bank (278cells Ni-Cd bank; 1.42VDC/cell Float Voltage &amp; 1.70VDC/cell Boost Voltage) as well AC Load; integration provision with UPS which runs on Grid power.</p> <ol style="list-style-type: none"> <li>1. Capacity- Minimum 25KWp or Higher, 14+14 (considered with 45VDC per plate) solar modules in parallel or other arrangement.</li> <li>2. Total Array- 02 Nos., Single array Voltage- 45 (assume)*14 = 630VDC (Single Array Voltage shall be same Voc i.e. 630VDC (2 Nos. connect in Parallel) but Nos. of SPV panels may be changed as per current market advancement etc.)</li> <li>3. Single Solar module detail as under:             <ol style="list-style-type: none"> <li>i. VDC Individual Plate (Voc) – 40 or higher</li> <li>ii. Max. Charging Current – 40-50 Amps. (capacity of the Solar plant will be 25KWp)</li> <li>iii. Battery bank Charging C10 – 30A @630VDC &amp; Load Current at 5A @230VAC through Solar Charge Controller.</li> </ol> </li> <li>4. Existing Battery Bank: Ni-Cd cells 278 cells (1.42VDC/cell Float Voltage &amp; 1.50 to 1.70VDC/cell Boost Voltage- required variable as per user setting)</li> </ol> <p><b>B. Location: Jalandhar Terminal, Ludhiana – Jalandhar Pipeline (Punjab) under Ludhiana Terminal.</b></p> <ol style="list-style-type: none"> <li>5. As built Auto-Cad drawing of layout, GAD and complete system as per requirement.</li> <li>6. Solar Panel, DC cable, AC Cable.</li> <li>7. DC Voltmeter &amp; AC Voltmeter.</li> <li>8. Indications, Alarm Indication, Protection, Transducer, Measurement Energy Meter for SCADA configuration port.</li> <li>9. Submission of Documents as per requirement mentioned.</li> <li>10. Clearance of sites as per Site in charge satisfaction.</li> </ol>
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	11. The Other requirement are as per the technical specifications mentioned in detail.
Sr. No. 20 & 30 Solar system is not with Generation Guarantee but the PV & other technical specifications shall be as per tender document to ensure the system reliability.	
40	CAMC 1st Year, Including Cleaning- Consumables & breakdown attend, Generation Guarantee Calculation submission.
50	CAMC 2nd Year, Including Cleaning- Consumables & breakdown attend, Generation Guarantee Calculation submission.
60	CAMC 3rd Year, Including Cleaning- Consumables & breakdown attend, Generation Guarantee Calculation submission.
70	CAMC 4th Year, Including Cleaning- Consumables & breakdown attend, Generation Guarantee Calculation submission.
80	CAMC 5th Year, Including Cleaning- Consumables & breakdown attend, Generation Guarantee Calculation submission.

2.2 **GAIL's SCOPE:** GAIL will provide only the site clearance time to time as per vendor's requirement.

- Electrical power supply (free of cost) as per requirement only in case of availability otherwise vendor will arrange the Genset. Genset will be located preferably outside the GAIL's premises or as per mutual understanding with GAIL's. any kind of safety measure suggested shall be adopted by vendors.
- Any power Cable requirement (any length) is in the scope of Vendor, the location of work will be decided by GAIL as per site requirement considering the safety of the existing installations. Any cable length will be arranged by Vendor.
- Water (by tanker, if required) arrangement for work is in the scope of vendor only.
- Local space (inside the installation) for material but it will be open to air space. Vendor will be allowed to barricade the area with their own expenses. Vendor may cover it for the material safety but this will be completely as per GAIL's permission.
- Any equipment / items, which is not recommended by Manufacturer to store outside or in open air than GAIL's will allow to store in building inside the premises for which suitable permission shall be obtained by Vendor from GAIL.

3.0 **TIME OF COMPLETION:** The Contract period shall be Eight (8) months (for SITC) + 5 year (for AMC) from the date of issue of work order/FoA.

4.0 **SUBMISSION OF REPORT:** Daily & weekly progress reports to respective site in-charge & EIC as mutually agreed during the job execution period.



**5.0 MATERIALS TO BE SUPPLIED BY CONTRACTOR:** All material for completion of mentioned jobs including the PPE's arrangement to their staff as per GAIL's requirement time to time during the work.

**6.0 PROCEDURE & REQUIREMENTS:** The procedure will be followed strictly as per relevant BIS /IS/ IEEE code, manual. However, the contractor shall have to submit a detailed procedure to be adopted before starting the job to the EIC for approval & same needs to be submitted to each site before start of the work.

**7.0 OTHERS REQUIREMENT:**

- Contractor has to ensure the safety of man and machine at all the times. Any Damage of equipment due to bad workmanship/ negligence will be recovered as per the decision of Engineer-in-charge/Terminal in charge, will be final.
- All the maintenance jobs mentioned under SOR shall be carried out as per the work procedure and as per guidelines/directions of Engineer in charge/Terminal In charge or GAIL's authorized representative. In general, the work performed by the contractor shall confirm to relevant standard and good engineering practice.
- The work shall be carried out with proper applicable permit at site & as per the safety instruction time to time (as per site specific conditions).
- It is strictly to be noted that vendor has to use only the good quality tools. All the Testing/measuring Instruments, tools, tackles along with deployment of qualified skilled manpower shall be in the scope of the Contractor. If required EIC / GAIL job supervision may ask to submit / produce Valid Calibration reports/certificates of the Testing instruments from NABL accredited labs/EQDC/ERDA/CPRI etc. before the start of the work.
- All expenses towards mobilization and demobilization of equipment's, testing's, work force, materials, dismantling, all consumables, cleaners, sprays, any other cleaning agents, cotton wastes and clearing the site in all respect after completion of work etc. shall be deemed to be included in the quoted prices. Contractor has to make his own arrangements for boarding, lodging & transportation up to site etc.
- No compensation for extra stay will be granted by GAIL.

**8.0 GATEPASS/ IDENTITY CARD:** Contractor has to comply the Gate pass system and abide to the instruction and guidelines issued by GAIL in Toto. Contractor team will have proper identity card issued by the contractor / company.

**9.0 WORK DURING HOLIDAY OR DURING BAD WEATHER:** GAIL may not allow the work on any gazette holiday, Sundays and any delegate visit at installation. If it is required, contractor has to request EIC / SIC in writing for permission.



**10.0 DOCUMENTATION / TESTING REPORT:** The contractor will maintain all records and relevant documents / measurements including spares consumption (if any) as required and submit the same to GAIL in the approved format by EIC.

**11.0** All personnel of the contractor entering on work premises shall be properly and neatly dressed and shall wear uniform badges while working on premises.

**12.0 DETAILED TECHNICAL SPECIFICATIONS:**

S. No.	Description
1	SCOPE OF WORK
2	TECHNICAL SPECIFICATIONS OF SPV
3	METHOD OF TESTING OF ALL THE COMPONENTS
4	INSPECTION AND TESTING
5	GUARANTEE / WARRANTY
6	TESTS LIST
7	METHOD OF TESTING AFTER COMMISSIONING
8	AUTHORISED TEST LABORATORIES / CENTRES
9	SUMMARY OF DEVIATION
10	CHECKLIST OF TECHNICAL DOCUMENTS TO BE SUBMITTED ALONG WITH BID

**12.1 SOLAR PV INSTALLATION DETAILS:**

Design, Engineering, Procurement, Installation, Testing and Commissioning of On-Grid Captive Solar PV systems / RPR on turnkey basis for GAIL-NCR.

Below site-wise details and basic requirement are as give below:

S. No.	Location	Total Roof Area (sqm)	Roof Area to be used (sqm)	Estimated PV System Size (KWp)	Average Units Consumed/year	Sanctioned Load	RPR Applicability
01	GAIL Terminal Bawana	275	250	25 KWp	1,20,000	48 kVA	No
02	GAIL Bhatinda	450	250	25 KWp	1,46,000	60 kW	Yes
03	GAIL Terminal Haridwar	275	250	25 KWp	72,000	65 kVA	No
04	GAIL Terminal IP-04, BNPL Ludhiana	205	200	25 KWp	30,000	25.66 kW	No



05	GAIL Terminal Kashipur	215	200	25 KWp	1,08,000	40 kVA	No
06	GAIL Terminal Nangal	325	250	25 KWp	60,000	N/A	Yes
07	GAIL Terminal Rudrapur	285	250	25 KWp	40,000	50 kVA	No
08	GAIL Terminal SV-01 Jodhan	325	250	25 KWp	60,000	40.91 kW	No
09	GAIL Terminal SV-09, Khanna	205	200	25 KWp	33,600	25.36 kW	No
10	GAIL Terminal DESU, Delhi	255	250	25 KWp	50,000	35kW	Yes
11	SV-02 Nayagaon, CGPL, Haryana	NA	NA	3 KWp	Solar requirement to Existing Battery bank charge SMF-VRLA & to cater DC Load (Off-grid) and Integration with UPS.		
12	Jalandhar Terminal, Punjab	NA	NA	25 KWp	Solar requirement to Existing Battery bank charge Ni-Cd & to cater DC Load (Off-grid) and Integration with UPS.		

\*: Capacity utilization factor (CUF) of 18% considered for solar system. With reference to DC capacity.

#### NOTES:

- If DISCOM doesn't allow for net metering, RPR must be provided by the vendor.
- RPR shall be automatic type Reverse power relay.

The scope of work shall cover all civil, electrical & mechanical works, providing of labor, tools, plants, materials and performance of work necessary for the planning, design, engineering, manufacture, quality assurance, shop assembly/ testing, insurance, supply, packing & forwarding, transportation, unloading at site, site storage & preservation, installation, commissioning, performance testing, acceptance testing, training of the GAIL (India) Limited personnel, supply of all spare parts, consumables, repairs / replacement of any defective equipment etc., handing over plant to the GAIL (India) Limited and warrantee of all equipment covered under the scope as per the technical specifications. The work shall be executed in conformity with the relevant applicable latest standards, codes, rules/ordinances & regulations. The overall design & engineering of the plant shall be based on latest available technology and optimal usage of space to minimize losses and maximize efficiency in line with technical specifications/data sheet attached.

#### 12.2 SUPPLY:



The equipment and materials for Solar PV Power Plant with associated system (typical) shall include, but not be limited to, the supply of the following:

- a) Solar PV modules including mounting frames, fixed tilt structures, foundation bolts and nuts for holding structures.
- b) Inverter, Remote Monitoring system, sensors, instrumentation suitable for outdoor installation.
- c) Digital Voltage Meter and Ammeter, kWh meters, Metering instrument and protection relays indoor or outdoor as per requirement.
- d) Instrumentation and metering complying with the applicable grid code (as per stated electricity board requirement) and specifications for operation and control of the plant. Appropriate instruments will be installed at suitable locations to measure the following details:
  - i. Solar radiation
  - ii. Module and Ambient Temperature sensor
  - iii. Generation of Solar DC power measured at PCU/Inverter input as well as AC power fed from Solar PV System to the captive load bus
  - iv. Frequency
  - v. Power Factor
  - vi. Energy export
- e) Solar DC Cables, LT AC Power Cables, OFC and Control Cables including end gland terminations and other required accessories for both AC & DC power cables. (All the cables selected shall be suitable for solar installation, refer below as mentioned).
- f) Cable trays. (Min. Perforated GI Type (100x40x2mm) with cover and mounting accessories)
- g) All the cables are to be run using cable tray or GI pipe. uPVC pipes are not allowed at all.
- h) Data acquisition system with remote monitoring facilities. Each PV system has to be synchronized with the existing SCADA system at the site.
- i) Lighting arrestors/ protection for the plant (refer below as mentioned)
- j) Protection equipment, isolators, circuit breakers etc., as required.
- k) Hume pipes accessories/trenches, as required.
- l) Earthing system for electrical equipment, Inverters/PCUs, Module Mounting Structure, Lightning arrestor, Remote Monitoring system etc. (Refer below as mentioned)
- m) Danger plates, name boards etc. in Hindi, English & Local language
- n) Mandatory spares.
- o) RFID Readers suitable for the supplied PV panels
- p) Any other equipment/material required to complete the Solar Power Plant on turnkey Basis.

### 12.3 SERVICES:

#### A. MOBILISATION AT SITE:



Arrangement for storage of incoming material to be done by bidder. Arrangement of Power and Water requirement during project construction to be done by bidder if not available in GAIL premises otherwise may be used from GAIL premises without any cost. (vendor can't claim to provide these facilities according to bidder requirement). Arrangements for accommodation, lodging and boarding for the workforce required for construction to be done by bidder by its own.

Vendors to note that Government Acts including payment of Wages Act 1936, Minimum Wages Act 1948, Employer's Liability Act 1938, Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Maturity Benefit Act 1961, Mines Act 1952, Employees State Insurance Act 1948, Contract Labor (Regulations & Abolishment) Act 1970 or any modification thereof or any other law relating whereto and rules made there under from time to time, or any other applicable act will have to be complied by contractor.

**Contractor carrying out the site work must have valid individual PF and ESI registration, which is the statutory requirement.**

**B. CIVIL WORKS:**

- a) For building roof tops, waterproofing to be maintained and dead weight structure to be created for solar installation.
- b) Shadow analysis, as required to be done.
- c) All requisite foundations and structures wherever required (PV array foundation, outdoor electrical equipment, etc.) shall be carried out by the bidder.
- d) Requisite tray work, conduit work, cable trenches for routing cables as required for the following:
  - i. PV array field
  - ii. Inverters
  - iii. Remote monitoring system (RS-485 based)
  - iv. Outdoor Power Electrical equipment, if any
  - v. Connection to captive load bus
- e) Mounting /arrangement and installation of Inverters, housing of inverter including suitable canopy/box including individual separate partition for local monitoring system
- f) Ensure accessibility and free movement inside the solar plant by keeping adequate space between rows and keeping height as suitable for work etc. (as required)

**C. ENGINEERING DRAWINGS & DATA:**

The scope of the contractor includes complete design and engineering, technical coordination, finalization of drawings/ documents, submission of engineering drawing/documents and processing for their approvals by the GAIL (India) Limited.





Following documents in three copies each and a CD shall be submitted to GAIL (India) Limited within 15 days of Award of Contract for review and reference:

- i. All technical design of system in AutoCAD in soft and hard copy (after approval from GAIL)
- ii. Detailed Technical Specifications and Guaranteed Technical Particulars to be submitted
- iii. Organization chart
- iv. General arrangement drawing for the project and layout plan including;
  - a. Plant Layout
  - b. Single Line Diagram of the power plant
  - c. SPV Array Layout drawing
  - d. Monitoring system configuration
  - e. Foundation drawing, if required
  - f. Switch gear – scheme of protection at captive load bus
  - g. Quality Assurance Plans (QAP)
  - h. Detailed time schedule of supply, erection and commissioning of the complete plant, including weekly level plans where applicable, and periodic review schedules (weekly, fortnightly or monthly). The entire work schedule should be subdivided into micro activity schedule interval with details of review plan.

Further, the scope shall also include submission, in proper shape & format, of all types of manuals, handbooks & documents in requisite numbers to the GAIL(India) Limited at different phases of the project as per the requirement of GAIL(India) Limited.

**D. ALL STATUTORY CLEARANCES AND OTHER APPROVALS:**

- a) All statutory clearances related to electrical works required from the concerned state power utilities/ State Electricity Board/Central Electricity Authority and any from Pollution Control Board/ State Nodal Agency) or any other statutory body shall be obtained by the Contractor, if required. GAIL (India) Limited would fill up the required forms and applications as advised by the contractor.
- b) Arranging Chief Electrical Inspector General (CEIG)/ CEA Inspection clearance/permission to connect (if required) shall be in contractor's scope if applicable.
- c) Capacity Registration with State Regulatory Agency, if required.
- d) For all the above clearances, the fees/statutory charges shall be in the scope of vendor but all the document along with permission and fee receipts will be submitted to GAIL in original.
- e) Tentative list of approvals and clearances that may be required are as below:
  - i. Project registration, if applicable.
  - ii. Metering Approval, if applicable.
  - iii. Meter testing, CT, PT testing and inspection certificate
  - iv. Clearance from Chief Electrical Inspector, if applicable.



- v. Certificate of commissioning - Nodal Agency /Local Agency etc., if applicable.

**E. ELECTRICAL AND ELECTRONICS WORK:**

**i. CABLE LAYING:**

- a) Underground Laying of cables in cable trenches providing cable markers, including backfilling the trenches or in conduits, as per the design approved.
- b) Cables should be laid using cable trays or GI pipes only. uPVC pipes are not allowed.
- c) Making straight through joints using heat shrinkable sleeves for cables only
- d) Connection, termination and testing of cables to distribution boards.
- e) Proper sand bedding must be provided as per relevant standards.
- f) Trenches for laying cable to be made by contractor/bidder. Chipping/cutting of concrete for cable laying to be done if required. Cut-outs of adequate size/dimension to be made in the concreted area. In the concreted area diamond cutters to be used for making the same.
- g) The repairing of the area as good as it was in previous shall be done by vendor at the satisfaction of GAIL.
- h) Wherever there is drainage or water flowing channels, the trenches should be water proof (i.e. brick lined/RCC) and filled with sand to prevent any water accumulation or cables should be laid in sealed GI/ Hume pipes or wherever cable is passing through drain, rerouting of cables should be done.

**ii. EARTHING SYSTEM:**

Installation, testing and commissioning of earthing electrodes/ earthing strip. Refer section 14.15 for more details.

**iii. TELECOMMUNICATION WORKS:**

- a) Cable connectivity to enable remote access of SPV Plant data at location. This includes provision of port in Remote Monitoring System, all internal cabling from module arrays to PCUs to Remote Monitoring System (or otherwise), as applicable.
- b) Supply, laying, termination and testing of armoured cables & connectors, as per required specifications, drawing and appropriate standards.
- c) Supply, erection and installation of indelible cable markers, including excavation and installation of Markers, cement concrete grouting, back filling etc. required as per drawing, specifications and directions of Site Engineer/ Engineer-In- Charge (EIC) including cost of all labor, tools & tackles, materials etc. complete in all respects.
- d) Testing of all types of cables, including their connectors installed with the plant as part of the work, after completing the laying work before commissioning of the plant system. Remote Monitoring System to be provided with internet/dongle facility for remote access.
- e) Connecting the RMS to the existing SCADA system of GAIL (India) Ltd. at each of the sites. Protocol shall be Ethernet or Modbus as per requirement.



- f) Each plant has to be integrated with the central monitoring system of GAIL (India) Ltd. For which any information required from GAIL will be provided.

**F. TRANSPORT OF EQUIPMENT FROM WORKS TO SITE, STORAGE, AND ACCOMODATION AT SITE:**

- a) All necessary permits and licenses, as may be necessary, to transport the equipment/ material, machinery, and labor along or across highway, roadway, railway, bridge, dike, dam, river or through posts of toll collection, Octroi checks or other line border or barrier shall be obtained by Contractor.
- b) Receipt, unloading & installation of all supplied equipment on foundations at their respective places.
- c) Proper storage of material before installation. Storage area shall be suitable to prevent equipment against rain & water logging.

**G. QA / QC**

Submission of QA/QC procedure for all activities in line with the detailed work specification, relevant codes/standards of practice for approval of EIC before start of any work at site. The works shall be executed in line with the approved QA/QC procedures

**H. TESTING**

All acceptance, routine tests as per the specification, relevant standards and approved QAPs (Quality Assurance Plans) shall be carried out at the cost of the contractor. The test certificates for all the equipment/auxiliaries shall be submitted for approval of EIC before delivery of respective equipment/auxiliary at site.

**I. PAINTING**

Painting of all equipment and structures shall be done as per standard color-coding scheme. The quality and finish of paints shall be as per standards of BIS or equivalent.

**J. TRAINING OF GAIL (INDIA) LIMITED PERSONNEL**

Providing a detailed training plan on energy assessment, design, technologies, plant design, and erection & commissioning, operation & maintenance procedures, which shall, after approval by GAIL (India) Ltd., form the basis of the training program. Contractor shall impart classroom training at GAIL (India) Ltd. as well as field training on site to GAIL (India) Ltd. personnel (1-2 days).

Expenses towards travel, stay, lodging & boarding and other expenses for the vendor's training personnel shall be borne by the Vendor.

**K. SYNCHRONISATION, COMMISSIONING & OPERATION**

- i. The Solar Power Project would be synchronized by the contractor to local Grid System.



- ii. GAIL (India) Limited shall reserve the right to conduct Third party Technical Audit of solar PV Power Plant after completion of commissioning.

#### L. PERFORMANCE GUARANTEE (PG) TEST

The performance guarantee tests shall be carried out as specified in the tender. All special equipment, tools and tackles, instruments, measuring devices required for the successful conductance of PG test shall be provided by the bidder, at his own cost. All costs associated with the PG tests shall be included in bid price.

#### M. CODES AND STANDARDS

The equipment and accessories covered shall be designed, manufactured and tested in accordance with the latest relevant standards and codes of practice published by the Bureau of Indian Standards (BIS), IEC, IS etc. as applicable. The quality of materials of construction and the workmanship of the finished products/components shall be in accordance with the standard and practices adopted for the equipment covered by the specification.

All the equipment shall be designed for operation in tropical humid climate at the required capacity in a minimum de-rating temperature of 50°C. Equipment shall be suitable for an ambient temperature of 50°C. Maximum relative humidity of 90% shall also be taken into consideration for design of equipment.

#### N. GUARANTEE / WARRANTY

A comprehensive warranty including mechanical structures, electrical works and overall workmanship of the solar system must be given for 1 year (One Year) from the date of successful commissioning at site.

- i. Any defect found in SPV module, PCU or any other accessories during warranty period will be replaced by the successful bidder free of cost within a period of maximum one month.
- ii. Warranty certificates of all the equipment are to be submitted by the bidder.
- iii. The system must be designed for highest possible performance ratio with minimum of 75% or higher. In case the generation guarantee is not met up-to the 5 years years, the PBG will be en-cashed. The calculation is as given below:
- iv. **Annual Performance ratio guarantee of SPV plant:** The System should be designed to achieve highest possible performance ratio (**minimum 75%**).

$$PR = \frac{AC \text{ Yield}}{\text{Installed Capacity} \times \text{Plane of Array Irradiation}} \times 100\%$$

Though performance ratio would be the main performance to be guaranteed by the EPC company in the tender, it should also take care to meet the capacity utilization factor.



Against the average Global Horizontal Irradiance (GHI), CUF should be approximately as specified in the table below:

*Capacity Utilisation Factor(CUF) =Energy measured (kWh) / (365\*24\*installed capacity of the plant).*

Average GHI (kWh/m2/Day)	CUF
6	19%
5.5	18%
5	16%
4.5	15%
4	13%

### 13.0 TECHNICAL SPECIFICATIONS

#### 13.1 SYSTEM DESCRIPTION

- a. Solar Photovoltaic (SPV) system shall be of On-Grid SPV System (Solar system + Grid) configuration.
- b. Solar Photovoltaic (SPV) system as defined above shall consist of minimum following items:
  - i. Solar PV Modules
  - ii. Module Mounting Structures
  - iii. Inverters: On-Grid MPPT Solar String Inverters. The inverters should have adequate provisions for input DC Energy measurement.
  - iv. DC Distribution Box
  - v. AC Switchgear
  - vi. System earthing
  - vii. Lightning Arrester
  - viii. Solar-Grid Energy Management system, if any
  - ix. Reverse Protection Relay (RPR) if applicable
  - x. Remote monitoring system (Microprocessor based Data Logger or any equivalent system) to be connected with existing SCADA system at each site
  - xi. Flexible & armoured Cables (AC and solar DC), Cable Trays and other Hardware accessories
  - xii. Weather Monitoring Station comprising of 1 no. mono-crystalline Si based Reference Cell, 1no. of Module temperature sensor & ambient temperature sensor each.
  - xiii. Multi-function Energy Meters (0.5 accuracy Class min.) or higher as per State electricity board requirement.
- c. All items in appropriate quantity shall be ensured to complete the project while ensuring quality as stipulated in the industry standards.



- d. The 3Ø-output of the system shall be synchronized with the existing AC switchgear bus to cater loads already connected i.e. solar power shall be synchronized with the grid supply.
- e. There should be a provision in the system for monitoring of operating parameters such as AC KWH generated, string voltage/current, inverter input/output voltage and current, kW, kWh, kVAr etc. and also system diagnostic alarms, if any, to the existing SCADA monitoring room at each site. It shall have an integrated/separate energy meter, voltmeter and ammeter. As for energy, generally the parameter of interest shall be the aggregate DC energy input to inverter(s) fed into the Inverter(s)/PCU(s). Class I and/or Class II Surge Arrestors (as per IEC 62305) should be incorporated for protection against any surges, wherever required.
- f. Communicable multi-function energy meter (Class 0.5) with RS-485/ Ethernet communicable port shall be provided for solar power system at its breaker panel.
- g. All breakers available for Solar shall have NO-NC control contacts through which suitable wiring/ cabling can be done from respective breakers.
- h. Reference Cell installed for Weather Monitoring Station shall have mV output for transferring the signal through RS485 port/ Ethernet port.
- i. The overall PV system should comply with the minimum technical requirements/ standards for SPV systems specified in MNRE release.
- j. DC Distribution Box should be UV resistant in accordance with UL 746C suitable for outdoor application. The mechanical impact resistance of IK 07 or better as per IEC 62262 or equivalent standard must be ensured.

### 13.2 GENERAL REQUIREMENT

- a. Total capacity of roof-mounted Solar PV power plant to be installed shall be 25 KWp at each of the specified sites.
- b. SPV modules shall be installed on shadow free area. The corresponding Main Inverter(s) and distribution boards etc. shall be housed on the roof and must be suitable for outdoor purpose. The inverter must have IP65 rating for this.
- c. Canopy has to be provided for the inverter and other electrical equipment installed outside.
- d. Array structure of PV yard and all electrical equipment such as PCU/inverters etc. shall be grounded properly with GI strips of size not less than 25x3mm or Cu cable not less than 1C x 6 sq.mm.
- e. 4 nos. of combined earth pits for DC & AC Side (In a grid) and 02 separate earth pits for LA has to be provided.  
The complete earthing job including preparation of earthing pits and connection with the existing earth grid, if any, shall be in the scope of the contractor and shall be ensured during the project execution.
- f. Array Solar PV system shall support remote monitoring of important operating parameters such as string voltage/current, inverter input/output voltage and current, kW, kWh, kVAr etc. and also system diagnostic alarms, if any, at a centralized location. The



- supply of hardware and software required for communication of the solar system over PC including supply and commissioning of all the necessary system shall be ensured.
- g. PV modules shall be connected in series – parallel manner to meet the voltage requirement in line with the datasheet of selected Inverter/ PCU.
  - h. Proper sealing arrangements against rodents/water at the points of cables entering the enclosures/ buildings should be incorporated. Although not mandatory, manufacturers are however encouraged that the cables entering into the enclosures be sealed with modular EPDM based cable sealing and protection system based on multi-diameter technology.
  - i. The reverse current of blocking diodes (connected in series), if required/ provided, shall be rated for 2 X VOC STC of the PV string. Reverse blocking diode shall not be required if inverter has reverse polarity protection feature.
  - j. The system shall automatically wake-up in the morning and supply power, provided there is sufficient solar energy and the grid voltage and frequency are in range.

When the grid voltage and/or frequency go out of preset range, the inverter shall be immediately disconnected from the grid. The inverter will reconnect after a pre-determined time when the grid is back in the range (which is not more than 5 minutes). For safety reasons, PV inverter system shall be disconnected from the network following a fault or loss of supply on the power network.

### 13.3 SPECIFIC TECHNICAL REQUIREMENT

The SPV system components shall conform to all the relevant codes and standards, but not limited to the following:

#### A. SOLAR PV MODULES / INVERTERS

<b>CODES</b>	<b>DESCRIPTIONS</b>
IS: 12834:1989 (Reaffirmed 2000)	Solar Photovoltaic Energy Systems – Terminology
IEC:609041 (2006)	Photovoltaic Devices – Part-1: Measurement of Photovoltaic Current Voltage Characteristic
IS: 9000	Basic environmental testing procedure for Electronic and electrical items.
IEC:60068	Environmental testing
IEC 61723 Ed1.0	Safety Guidelines for grid connected systems mounted on the buildings photovoltaic
IEC 60364-7-712 (2 00 2)	Electrical Installations of Buildings Part7: requirements for special installations or locations; Section, 712: Photovoltaic power supply systems.
IEC62446	Minimal information and documentation



	required to be handed over to a customer following the installation of a grid connected PV system. Also describes the minimum commissioning tests, inspection criteria and documentation verify the safe installation and correct the system.
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61701 (As applicable)	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS16170: Part1	Photovoltaic (PV) module performance testing and energy rating--: Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules: - Ammonia (NH3) Corrosion Testing
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification: Part1: Requirements for Construction Part2: Requirements for Testing
IEC 62804 (Draft Specifications)	Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation (PID). IEC TS 62804-1: Part 1: Crystalline silicon (Mandatory for system voltage is more than 600 VDC and advisory for system voltage is less than 600 VDC)
IEC 62759-1	Photovoltaic (PV) modules – Transportation testing, Part 1: Transportation and shipping of module package units
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (For stand Alone System)	Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
BS EN 50530	Overall efficiency of grid-connected





(Will become IEC 62891) (For Grid Interactive system)	photovoltaic inverters: This European Standard provides a procedure for the measurement of the accuracy of the maximum power point tracking (MPPT) of inverters, which are used in grid-connected photovoltaic systems. In that case the inverter energizes a low voltage grid of stable AC voltage and constant frequency. Both the static and dynamic MPPT efficiency is considered.
IEC 62116/ UL 1741/ IEEE 1547	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention
IEC 60255-27	Measuring relays and protection equipment - Part 27: Product safety requirements
IEC 60068-2 (1, 2, 14, 27, 30 & 64)	Environmental Testing of PV System – Power Conditioners and Inverters
IEC 61000- 2,3,5	Electromagnetic Interference (EMI), and Electromagnetic Compatibility (EMC) testing of PV Inverters (as applicable)

#### B. Fuses / Switchgear / Connector

CODES	DESCRIPTIONS
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC)
IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of SPV system

#### C. Surge Arrestors

CODES	DESCRIPTIONS
IEC 61643-11:2011/ IS15086-5 (SPD)	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods

#### D. Cables

CODES	DESCRIPTIONS
IEC 60227/IS 694, IEC60502/	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for



IS 1554 (Part 1 & 2)	working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC cables

#### E. Earthing / Lightning

CODES	DESCRIPTIONS
IS-3043	Code of practice for earthing

#### F. Energy Meter

CODES	DESCRIPTIONS
IS 16444 or as specified by the DISCOMs	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 — Specification (with Import & Export/Net energy measurements)

#### G. SOLAR PV MODULE MOUNTING STRUCTURE

CODES	DESCRIPTIONS
IS 2062/IS 4759	Material for the structure mounting

### 13.4 SOLAR PANELS / PV MODULES

13.4.1. The technical details of Solar PV Modules shall be as given below:

Sr. No.	Description	Details
1.	Type of SPV module	Perc Mono Crystalline Silicon
2.	Peak power rating of module	$\geq 330\text{Wp}$
3.	Module efficiency*	
4.	Fill factor*	

13.4.2. SPV modules should comply to relevant Codes and Standards as mentioned above. Compliance to the PID free nature of PV modules shall be established.

13.4.3. SPV module shall perform satisfactorily in relative humidity up to 90% with operating temperatures between  $-10^{\circ}\text{C}$  &  $+85^{\circ}\text{C}$  and shall withstand wind speed on the surface of the panel as per site specific requirement. Transitivity of glass shall not be less than 91%.

13.4.4. The PV modules shall be equipped with bypass diode to minimize power drop caused by shade. Minimum one bypass diode between two circuits.



- 13.4.5. The module frame shall be made of anodized Aluminum or corrosion resistant material frame, which shall be electrolytically compatible with the structural material used for mounting the modules with sufficient number of grounding installation. The anodizing thickness shall be 15 micron or more.
- 13.4.6. The actual module power capacity shall not vary by more than +3% from its minimum certified module power capacity. No negative tolerance shall be accepted.
- 13.4.7. The temperature co-efficient for power output of the Solar PV module shall not be more than -0.40% / °C.
- 13.4.8. All photovoltaic modules shall have linear performance warranty from second year. The solar PV modules offered shall not degrade more than 2.5% in first year and not more than 0.7% from second year of its rated power.
- 13.4.9. Each Solar PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which shall not be less than 90% at the end of 10 years and 80% at the end of 25 years from the completion of the trial run.
- 13.4.10. The module mismatch losses for modules connected to an inverter shall be less than 2%.
- 13.4.11. Module shall be PID free. The modules shall be provided with anti-reflection coating and back surface field (BSF) structure to increase conversion efficiency.
- 13.4.12. The SPV module shall be made up of impact resistant, low iron and high transmissivity toughened glass. The front surface shall give high encapsulation gain.
- 13.4.13. The SPV modules shall have suitable encapsulation and sealing arrangements to protect the silicon cells from environment. The encapsulation arrangement shall ensure complete moisture proofing for the entire life of solar modules.
- 13.4.14. The equipment shall be designed to give efficient and reliable performance and shall be such that the risks of accidental short-circuit due to animals, birds or vermin are obviated.
- 13.4.15. The data sheets of all modules shall be provided. The exact power of the module shall be indicated if the data sheet consists of a range of modules with varying output power.
- 13.4.16. Module Junction box and Terminal Block shall be of high quality fitted at the back side and shall be weather proof (IP 65 or better rated) and designed to be used with standard wiring or conduit connection. Each Junction Box shall contain Bypass Diode. They shall have a provision for opening /replacing the cables, if required. The module junction box shall be certified as per IEC 61215.
- 13.4.17. Each module shall have minimum two 4 sq.mm. stranded UV resistant output DC solar cables each terminated with connectors adaptive to MC4 type connector directly. MC4 type connector should have typical certification from testing agency TUV, competent for the purpose.
- 13.4.18. The typical solar PV module electrical characteristics including current- voltage (I-V) performance curves and temperature coefficients of power, voltage and current shall be provided for all the modules supplied. However, the tabulated document with all the relevant data like voltage, current, power output for each module is also required to be provided along with the supply.



**13.4.19.** Modules deployed must use a Radio Frequency Identification (RFID) tag for traceability. It shall be well protected within the module laminate and contain the following information:

- a) Name of the manufacturer of the PV module
- b) Name of the manufacturer of Solar Cells
- c) Month & year of the manufacture (separate for solar cells and modules)
- d) Country of origin (separately for solar cells and module)
- e) I-V curve for the module
- f) Wattage, Imp, Vmp and FF for the module
- g) Unique Serial No. and Model No. of the module
- h) Number and Date of IEC PV module qualification certificate
- i) Name of the test lab issuing IEC certificate
- j) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.

**13.4.20.** All individual modules shall be provided with Name Plate label at the back of module which shall provide the information given below for identification. They shall be clearly visible and shall not be hidden by equipment wiring. Type of labels and fixing of labels shall be such that they are not likely to peel off/ fall off during the life of the panel.

- a) Name of the Project
- b) Manufacturer's Name
- c) Model Number, Serial Number
- d) Overall dimensions and effective Dimensions (WxLxD)
- e) Weight (kg)
- f) Maximum Power (Pmax), Voltage (Vmp), Current (Imp)
- g) Short Circuit Current (Isc), Open Circuit Voltage (Voc)
- h) Main System Voltage
- i) Relevant standards, Certification lab. name
- j) Warnings, if any.

**Unless otherwise stipulated, the properties mentioned above should be demonstrated through datasheet of the manufacturer.**

**13.4.21. Testing of Solar PV Modules:**

PV modules must qualify test from IEC/NABL accredited laboratory as per relevant IEC standard and report/certification of the same must be attached.

The performance of PV modules at STC conditions must be tested and approved by one of the IEC / NABL Accredited Testing Laboratories / Solar Energy Centre of MNRE/ any other MNRE authorized test laboratories/centers. The test certificates shall be submitted for acceptability of modules.

**TESTS:**

The manufacturer shall carry out routine tests at his works and shall maintain records for the same. Acceptance testing shall be carried out by GAIL (India) Ltd. representative or by third party inspector.

**13.5 TESTS ON SPV MODULES**

S.N.	Name of Test	Type Test	Routine Test	Acceptance Test
1	Visual Examination	Yes	Yes	Yes
2	Design Qualification	Yes	Yes	Yes*
3	Safety Qualification	Yes	Yes	Yes*
4	Photo Electrical Conversion Efficiency	Yes	Yes	Yes
5	Fill Factor	Yes	Yes	Yes
6	Transmittivity of Glass	Yes		
7	Rated output of module	Yes	Yes	
8	Module mismatch test			Yes
9	Array mismatch test			Yes
10	Encapsulation and sealing	Yes	Yes	
11	Terminal block	Yes	Yes	
12	Provision of Bird Spike (only if not provided in structure)	Yes		Yes
13	Provision of RFID tag with requisite details	Yes	Yes	Yes
14	Environmental tests (IEC 61215 damp test)	Yes		Yes**
15	Provision of Earthing	Yes		Yes
16	Marking	Yes	Yes	Yes

\* Copy of the latest conformance certificates should be asked.

\*\* Standard Type test report will be relied upon.

**13.6 TESTS ON MOUNTING STRUCTURE**

S.N.	Name of Test	Type Test	Routine Test	Acceptance Test
1	Visual Examination	Yes	Yes	Yes
2	Dimension	Yes	Yes	Yes
3	Design calculation on wind withstand capability	Yes	Yes	Yes
4	Clearance between module and ground	Yes		Yes



5	Galvanization thickness	Yes	Yes	Yes
6	Foundation			Yes
7	Provision of Earthing	Yes		Yes
8	Fasteners	Yes		Yes

### 13.7 TESTS ON MODULE JUNCTION BOX, ARRAY SUB-MAIN AND MAIN JUNCTION BOX

S.N.	Name of Test	Type Test	Routine Test
1	Visual Examination	Yes	Yes
2	Material	Yes	
3	IP Protection	Yes	Yes
4	Surge Protection	Yes	Yes
5	Cable Glands	Yes	Yes

\*Data sheet /TPI report shall be relied upon.

\*\*Certification shall be relied upon for acceptance.

### 13.8 TESTS ON POWER CONDITIONING UNIT (PCU)

S. N.	Name of Test	Type Test	Acceptance Test
1	Visual Examination	Yes	Yes*
2	MPPT range	Yes	Yes*
3	Voltage Range	Yes	Yes*
4	Frequency range	Yes	Yes*
5	Harmonics on AC side	Yes	Yes*
6	PCU efficiency	Yes	Yes*
7	Protection Tests	Yes	
8	Surge Protection	Yes*	Yes*
9	IP protection	Yes	Yes*
10	Control Circuit redundancy	Yes	
11	Automatic operation & synchronization	Yes	Yes*
12	Islanding Protection	Yes	Yes*
13	Displaying of basic Parameters on LED/LCD Display	Yes	Yes*
14	Data logging, Communication interface and web application	Yes	Yes*
15	Night Consumption	Yes	
16	Noise Level	Yes	



17	Power Factor Measurement	Yes	
18	Insulation resistance	Yes	Yes*
19	EMI/EMC	Yes	
20	Idling current	Yes	Yes*
21	High Voltage test	Yes	
22	Provision of RCD	Yes	Yes*
23	Provision of Isolation	Yes	Yes*
24	Earthing	Yes	Yes*
25	Environmental Test	Yes	Yes**

\* Datasheet of the manufacturer will be relied upon.

\*\* Standard Type test report will be relied upon.

### 13.9 TESTS ON CABLES

S.N.	Name of Test	Type Test	Routine Test
1	Visual Examination	Yes	Yes
2	Temperature range	Yes*	Yes*
3	Voltage rating	Yes*	Yes*
4	Resistance to heat, cold, water, oil, abrasion, UV radiation, ozone and weathering	Yes*	Yes*
5	Halogen –free,	Yes*	Yes*
	Low smoke and Low toxicity	Yes*	Yes*
6	Flame retardant	Yes*	Yes*
7	Flexible	Yes*	Yes*
8	IEC 60332-1 requirements	Yes*	Yes*
9	IEC 60228 class 5	Yes*	Yes*
10	Module/ array wiring	Yes	Yes

\*Manufacturer's data sheet/TPI report shall be relied upon.

### 13.10 QUALITY TESTING ON PV MODULES

Modules used in solar panels shall have IEC 61215 Ed 2 or latest compliance certificate. The qualification testing procedure is defined in IEC 61215 Ed 2 or latest to examine the impact of mechanical, thermal and electrical stress on power output. The bidder shall submit appropriate type approval certificate for the offered solar modules from accredited test laboratory.

### 14.0 METHOD OF TESTING

#### 14.1 VISUAL INSPECTION



Each module shall be carefully inspected under an illumination of not less than 1,000 lux for the following conditions:

- a) Racked, bent, misaligned or torn external surfaces.
- b) Broken / cracked cells
- c) Faulty interconnections or joints
- d) Cells touching one another or the frame
- e) Failure of adhesive bonds; bubbles or delamination forming a continuous path between a cell and edge of the module
- f) Faulty terminations and exposed live electrical parts
- g) Junction box should have common terminals with suitable blocking diode to prevent reverse current flow. Blocking diode in solar module junction box is required in case of using DC Junction box.

**14.2 PERFORMANCE OF STC (CLAUSE 10.1 OF IEC 61215 ED 2 OR LATEST):**

The current-voltage characteristics of the module shall be determined in accordance with IEC 60904-1 at a specific set of irradiance and temperature conditions. Performance of PV-Module shall be generally evaluated at Standard-Test-Conditions (STC) as defined in IEC 60904 standards:

- I. Cell temp. of 25° C,
- II. Incident solar irradiance of 1000W/m<sup>2</sup>,
- III. Spectral distribution of light spectrum with an air mass AM=1.5

**14.3** All PV modules supplied shall be accompanied with I-V curves (tested in the manufacturing unit, clearly indicating the serial number, batch number, date and country of origin).

**14.4 ACCEPTANCE CRITERIA**

The module is deemed to have passed the tests if the sample meets the following criteria;

1. There is no evidence of a major visual defect such as a cracked or broken window, bubbles or de-lamination in the encapsulant etc.
2. There is no cell breakage and no water infiltration into terminal boxes.
3. No sample exhibits any open circuit or ground fault.
4. No visible evidence of major defects that may affect performance of the module.
5. Insulation Resistance not less than 50M-ohm at 500 V DC.
6. Degradation of performance may not exceed 5% after each single test or 8% after the whole sequence.

**14.5 SPARE PARTS**

- 1) Bidder shall recommend and furnish details for essential spare parts required for at least 10 years after completion of guarantee period and provide the details of nearest source of availability.





- 2) Hardware such as clamps. Pipes, fittings, cable tags, screws, nuts and bolts any other items required along necessary tools.
- 3) **Spare Management:**
  - Critical spares to be identified in consultation with OEM and need to be maintained at plant.
  - In case of modules spares required are MC4 connectors.
  - 4-5 modules if kept in spare will ensure timely replacement of damaged modules.
- 4) **Maintenance Activities related with safety:**
  - Earth Resistance Measurement: Earth resistance of earthing electrodes to be measured periodically i.e. measurement in connected mode on Quarterly basis and in disconnected mode on quarterly basis. Acceptable value of earth resistance for solar array is less than 5 ohms for individual EP. Digital earth resistance tester of reputed make to be used for measurement.
  - Earthing continuity in PV module structures: Quarterly visual check of GI strips and to check electrical continuity using multimeter between module structures to be undertaken.

#### 14.6 TOOLS AND MEASURING INSTRUMENTS

Following tools & measuring instruments to be always available with team during work at site:

AC-DC clamp meter, earth resistance tester, Megger, spanner set, screw driver set, crimping tool, Allen key set, rough file kit, cutting pliers, nose plier etc.

#### 14.7 RECORDS TO BE MAINTAINED:

For analysis purpose following records can be maintained at plant level

- a. Generation On & Off time
- b. Energy generation
- c. Fault details: Type of faults, time of faults & its duration
- d. Details of O&M activity undertaken.

Format shall be approved by GAIL; the same format shall be used at all the installations.

#### 14.8 OTHERS

- a) Half yearly Functional Checks of Protection circuits and Switchgear during warranty as period.
- b) Checking for loose structural nuts and bolts and cable terminations between PV modules, PV arrays, line accessories, transformers and associated switchgear on the HT side etc. Retightening connection and replacing cables/MC4 connectors if necessary.
- c) The repair/replacement work shall be completed within **48 hours** from the time of reporting the fault.
- d) A half yearly performance report of the plant inclusive of energy generation data shall be provided as per mutually approved format.

#### 14.9 COMPLETION TESTS AT SITE



- a. During commissioning of the total SPV System, following tests will be carried out.
  - i. Function tests of all PV modules and monitoring systems
  - ii. Operation tests of all the PV modules and monitoring systems
- b. The operation tests are accepted as fulfilled only after trouble free operation on any clear sunny day as decided by EIC soon after the bidder declares SPV system to be operational including feeding power to local LT Panel.
- c. Only on successful fulfillment of the tests, the commissioning certification will be issued

#### **14.10 COMPLETION REPORT**

The contractor shall submit Completion Report of the project to GAIL/EIC. The Completion Report shall consist of the following documents.

- Vendor will provide the complete system Auto-cad design of system at site (approved and As-built both copy). The old as built design of site/terminal will be provided by GAIL to vendor (soft or hard copy, not auto-cad, Auto-cad will be provided only if available). The final updated Auto-cad design shall comprise complete area drawing with solar installed system showing the existing facility too. (block site layout and final as built system drawing)
- Copy of the Commissioning Certificate issued by Individual site in-charge or EIC after successful completion of Functional and Operational tests.
- Technical documents as per scope of work & technical specifications according to which the work has carried out.
- Four sets of as built drawings showing therein modification and corrections, if any, made during the course of execution signed by the EIC. A soft copy of as built drawings shall also be submitted.
- Copy of complete as built layout of the SPV System including interconnection with GAIL's power supply system.
- Copies of test Certificates for type / routine tests performed on major equipment.
- Operation & Maintenance Manuals.
- Copies of Statutory clearances / permissions.
- Certificate / undertaking for making payment of all statutory requirements, duties, labor wages and others for having made payment.
- An undertaking confirming the payment of all statutory duties, taxes (document (s) having evidence of paying statutory duties, taxes etc. as per requirement of concerned statutory authorities).
- Certificate regarding completion of the facility in all respect by the EIC.

#### **14.11 MODULE MOUNTING STRUCTURE:**

- i. For building roof tops, waterproofing to be maintained and dead weight structure to be created for solar installation. In case of any damage to existing water proofing the contractor shall be responsible for restoring the waterproofing to its original condition and for provision of additional waterproofing in the areas where RCC blocks/dead weights are secured on to the terrace.



- ii. The PV modules shall be mounted on metallic structures called Module Mounting Structures (MMS) having adequate strength and appropriate design, which can withstand the load of the modules and design wind pressure.
- iii. Module mounting structure with fixed tilt, south facing orientation and tilted at the location's latitude angle from the horizontal is proposed in order to maximize the total annual incident solar irradiation. However, a different orientation or design may be proposed to achieve better generation with detailed documentary proof.
- iv. The mounting structures shall withstand wind speed as per IS875 part03.
- v. Proper design and calculations report pertaining to foundations and structures duly certified by Chartered Structural/Civil engineer shall be submitted to EIC for approval prior to commencement of work at site. In any case members specs should not be less than in below table;

Member	Min. section specs	Min. strength	material	Galvanization
Column	C section with lip (75x40x15x2mm)	250 MPa		HDG 85 micron
Rafter	C section with lip (75x40x15x2mm)	250 MPa		HDG 85 micron
Purlins	C section with lip (40x40x15x2mm)	250 MPa		HDG 85 micron
Bracings	Angle (40x40x2mm)	250 MPa		HDG 85 micron
Base Plates	200x200x5mm	250 MPa		HDG 85 micron

- vi. The array structure shall be so designed that it would occupy minimum space without sacrificing the output from SPV panels. The structure shall be designed so that repair and maintenance activity could be done easily and shall be in line with the site requirements.
- vii. Columns base plate will be mounted on the roof using Anchor fasteners of appropriate dimensions and concrete footing will be casted over that of appropriate size as per calculations.
- viii. Adequate walking space shall be made available between the SPV arrays to allow walkway for maintenance personnel.
- ix. All solar panels must be accessible from the top for cleaning and from the bottom for access to the module junction box.
- x. In general, bolts, nuts, shims and other hardware shall be SS 304. The generally applicable engineering principle will be that fasteners equal to or greater corrosion resistance than the most corrosion resistant metals being fastened. Standoff materials shall be used to reduce electrochemical corrosion between galvanically dissimilar metal surfaces such as nylon washers, rubber insulators.
- xi. The minimum clearance of the lowest part of the module structure and the developed/ finished ground level shall not be less than 500 mm or minimum height of parapet roof wall, if available, whichever is more.



- xii. The dead weight of the complete solar PV system installed on rooftop should not exceed 60 kg per sq. mt.
- xiii. The structure shall support Solar PV modules in portrait orientation, absorb and transfer the mechanical loads to the ground/roof properly. Welding or complex fixing mechanism shall not be allowed for installation of module mounting structure to the foundation.
- xiv. All mechanical items must be supplied as per approved drawing, BOQ and as per direction of EIC.
- xv. GAIL India Ltd. to verify that the Mounting structure is manufactured as per approved design at the vendor's works. This shall include but not limited to mounting structure galvanization thickness, wind withstand capability of mounting structure etc.

#### 14.12 DC DISTRIBUTION BOX:

- a) DC Distribution Box is to be provided to disconnect any string from the inverter
- b) Each string shall be equipped with 1000V, 16A, Curve C, 2P MCB (15 kA) and DC SPD (1000V) protection of class 02.

##### **Surge Protection Devices (SPDs):**

SPD shall consist of three Metal Oxide Varistors (MOV) type surge arrestors which shall be connected from positive and negative bus to earth. As per IEC 61643-11/12, nominal discharge current ( $I_n$ ) at 8/20 microseconds shall be at least 10 KA with maximum discharge current ( $I_{max}$ ) of at least 20 KA at 8/20 microseconds. The  $I_{scwpv}$  (Short Circuit current withstand capacity) of arrester would be at least 10% more than nominal output current of DCDB box. Detailed internal schematic for the above SPDs, compliant to these specifications, shall be submitted by the manufacturers. During earth fault and failure of MOV, the SPD should safely disconnect the healthy system. SPD shall have thermal dis-connector to interrupt the surge current arising from internal and external faults. In order to avoid the fire hazard due to possible DC arcing in the SPD due to operation of thermal dis-connector, the SPD shall be able to extinguish the arc. SPD Type-2 is to be supplied.

- c) They shall be dust, vermin & waterproof and made of Polycarbonate- Glass Fiber Substance (PC-GFS) thermoplastic. The enclosure should be double insulated with protection class II as per IEC 61439- Material and the protection class shall be marked on the enclosure.
- d) The enclosure shall have a transparent front lid for enabling easy visibility.
- e) The enclosures shall have IP 65/66 protection in accordance with IEC 60529.
- f) Minimum requirements for fire protection in the event of internal faults: Glow wire test in accordance with IEC 60 695- 2-11 at 960 deg C for box and 850 deg C for conducting components.
- g) Burning Behavior: Base part of Polycarbonate Enclosure shall be UL94-V-0 compliant and Lid part of PC Enclosure shall be UL94-V-2 compliant.
- h) The enclosures shall have IK 08 degree of protection for mechanical load.



- i) The material used shall be halogen, silicon free conforming to RoHS directive 2002/95/EC.
- j) The enclosure shall have a usage temperature rating of -10 deg C to 55 deg C.
- k) The enclosure should be chemically resistant to acid, lye, petrol, mineral oil & partially resistant to benzene.
- l) The enclosures shall have a rated insulated voltage of 1000V DC and dielectric strength of 4.65 KV DC.
- m) The material of the enclosure shall be UV stabilized.
- n) Manufacturers are encouraged to provide breather glands in the DCDB to prevent overheating and explosions. TYCO / HENSEL/ or as per the BOM sheet.

#### 14.13 ON GRID SOLAR MPPT SOLAR STRING INVERTER:

- i. The DC power produced by Solar PV Modules shall be fed to the solar inverters/ Power Conditioning Unit(s) (PCUs) for inverting DC into AC power. PCU shall use its MPPT (Maximum Power Point Tracking) control to extract maximum energy from solar array and produce true sine wave 415 V AC, 3- ph., 50Hz. For sizing of inverter, the same shall be finalized after submission of proper design calculations to EIC for approval. However, in general, the SPV KWp rating to PCU/Inverter's kW rating shall be **within 1.20**. The array output shall be well within the input voltage range of the inverter so that the inverter works in MPPT range for most of the solar insolation range. This should be applicable for the whole life of the solar array and needs to be substantiated through design calculations duly approved by GAIL (India) Ltd. PCU shall be able to handle maximum open circuit DC voltage of 1,000V.
  - MPPT controller, inverter and associated control and protection devices, etc. all shall be integrated into the PCU.
  - PCU/ string inverter shall provide 3 phases, 415V (with grid tracking of +15%/-20%), 50 Hz (with grid tracking of  $\pm 5\%$  i.e. 47.5 to 52.5 Hz) supply on AC side with voltage THD of less than 3% and current THD of less than 5%.
  - Each PCU shall be compliant with IEEE Standard 929-200 or equivalent and should be at least IP54 (for indoor installation). For inverters to be installed outdoors, minimum IP65 protection shall be required.
  - The inverter shall be efficient with IGBT based reliable design. The control system should be of highest reliability preferably based on Digital Signal Processors. The manufacturers are encouraged to provide the control system of redundant type.
  - The PCU shall be capable of complete automatic operation, including wake-up, synchronization and shut down.
  - PCU shall have the facility to display the basic parameters of the system LED/LCD display.
  - PCU shall be able to synchronize independently and automatically/ phase-lock with GAIL (India) Ltd. grid power line frequency to attain synchronization.
  - Built-in data logging to monitor plant performance through external PC shall be provided. The communication should be in such a way that the inverter can



be monitored from any PC connected to the internal LAN of GAIL (India) Ltd. All necessary components, cable and software with license is in vendor's scope and is to be provided by the vendor. There is an existing SCADA system along with control room at each of the sites. SPV system monitoring has to be integrated with the existing SCADA system.

- Inverter shall be tested for anti-islanding protection performance.
- Only isolated inverters shall be grounded on DC side. Usually not required in transformer less inverter.
- Night consumption of the PCU shall be less than 0.2% of the rated power of the inverter. (is this standard guideline?)
- Noise level of the PCU should be less than 65 dBA (nominal) at 1m.
- DC insulation resistance should be more than 50MΩ
  - Emitted interference as per IEC: 61000-6-4.
  - Interference emitted as per IEC: 61000-6-2
- An integrated earth fault detection device is to be provided to detect eventual earth fault on DC side and shall send message to the supervisory system.
- Idling current at no load shall not exceed 2% of the full load current.
- PCU shall withstand high voltage test of 2,000 Vrms between either the input or the output terminals and the cabinet (chassis).
- PCU includes ground lugs for equipment and PV array groundings. The DC circuit ground shall be a solid single point ground connection.
- Where PCU has not been provided with galvanic isolation, a type B residual current device (RCD) according to IEC 60755 amendments 2 shall be installed to provide fault protection by automatic disconnection of supply. Inbuilt RCD will also be accepted.
- To allow maintenance of the PCU, means of isolating the PCU from the DC side and the AC side shall be provided.
- PCU can be a centralized unit or a combination of multiple string inverters. In case of centralized inverters, the inverter shall have low voltage ride through feature
- Makes: OPS/REFU sol/Delta/OEM/ Equivalent. Vendor should be prepared to prove track record of the make, if not mentioned in the names here.
- The PCU should withstand the environmental tests (as per IEC 60068/ IS 9000) listed below with the PCU working at full load for at least last half an hour. Environmental test results in respect of any similar design PCU for at least 10 KWp SPV systems will be adequate.
- Dry Heat Test: 50 C  $\pm$  2 C for 16 hours
- Damp Heat Test (Steady state): 40 C, 93% RH for 4 days
- Damp Heat Test (Cyclic): 40 C, 93% RH for 6 cycles (duration of one cycle shall be 24hrs)
- Cold Test: 0 C for 16 hours
- Change of temperature Test: -10 C /-5 C to 50 C for 3 cycles (rate of change in temperature shall be 3degreeC per minute)



For tests like Anti Islanding (IEC 62116) and efficiency measurement (IEC 61683), third party tests from NABL accredited labs shall be acceptable.

- ii. The inverter output shall always confirm to the grid in terms of voltage and frequency.
- iii. The efficiency of the PCU shall be at least 98% at 75% load. The conversion efficiency for PCU at different loads – 10%, 25%, 50%, 75%, 100%, 120% shall be specified in the offer. Above efficiencies are when measured without output inverter transformer.
- iv. PCU shall have Low Voltage Ride-Through (LVRT) feature to provide support during grid fault.
- v. PCU shall have the facility of recording solar energy (kWh) generated at the output of PCU in addition to PV voltage, PV current (in Amps), Instantaneous PV power, daily PV power generated & cumulative PV power generated.
- vi. Maximum Power Point Tracker (MPPT) shall be integrated in the PCU to maximize energy drawn from the Solar PV array. The MPPT shall be microprocessor based to minimize power losses. The operating voltage range of PCU and the MPPT shall be large enough so that it satisfactorily operates for PV modules exposed to the maximum ambient temperature of 60-degree C.
- vii. DC lines shall have suitably rated on load isolators to allow safe start up and shut down of the system.
- viii. The PCU must have the feature to work in tandem with other similar PCUs and to be successively switched "ON" and "OFF" automatically based on solar radiation variations during the day.
- ix. The PCU shall have anti-islanding protection as per the relevant IEC standards.
- x. Remote as well as local monitoring shall be provided. Built-in data logger (to record all the important operational parameters and all the events) to monitor plant performance through external PC shall be provided. The communication shall be in such a way that the PCU can be monitored with the help of appropriate software from the centralized system. The PCU shall have the facility to provide the analysis for reason of tripping, in cases of inadvertent tripping.
- xi. The surge rating of the inverter shall be up to 150% of the continuous rating for a minimum of 30 seconds.
- xii. MOV type surge arrestors, shall be provided on all PV inputs for overvoltage protection against lightening induced surges.
- xiii. PCU shall have feature to be regulated from 0-99% in steps of minimum 1%.
- xiv. PCU shall include ground lugs for equipment and PV array groundings. The DC circuit ground shall be a solid single point ground connection.
- xv. PCU shall be tropicalized and design shall be compatible with conditions prevailing at site.
- xvi. Nuts, bolts and the PCU enclosure shall have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- xvii. Rubber mats shall be provided near the PCU panel.



- xviii. **Display:**  
 PCU shall have the facility to display the basic parameters of the system on in-built LED/LCD display on its front panel or on separate data logging/display device to display following or through any other indication means:
- a) DC Input Voltage
  - b) DC Input current
  - c) AC Output Voltage
  - d) AC Output Current
  - e) AC Power output (kW)
  - f) AC Energy output (kWh)
  - g) Frequency
  - h) Temperatures (0C): Ambient as well as internal
  - i) Over frequency
  - j) Under frequency
  - k) Inverter ON/OFF
  - l) Grid ON/OFF
  - m) Inverter over-load
  - n) Inverter over-temperature
- xix. **PROTECTIONS:**  
 Following is an indicative list of protections (the actual scheme shall be finalized at design stage):
- a. Over-voltage both at input and output
  - b. Over-current both at input and output
  - c. Over temperature
  - d. Reverse polarity protection
  - e. Array ground fault protection
  - f. Protection against earth leakage faults (DC as well as AC side)
  - g. Protection against lightning induced surges
  - h. Protection against surge voltage induced at input and output due to external source
  - i. Provision for input & output isolation.
- xx. In Addition, PCU shall ensure following protection measures:
1. MCBs/MCCBs shall be provided for systems connected to Inverter.
  2. The PCU shall include appropriate self-protective and self-diagnostic feature to protect itself and the PV array from damage in the event of PCU component failure or from parameters beyond the PCUs safe operating range due to internal or external causes. The self-protective features shall not allow signals from the PCU diagnostic circuit to cause the PCU to be operated in a manner which may be unsafe or damaging. Faults due to malfunctioning within the PCU, including commutation failure, shall be cleared by the PCU protective devices.





3. Automatic reset of all non-critical faults such as overloads, AC over voltage/under voltage, etc. once the fault has been cleared.
- xxi. Operating Modes of PCU:
1. **LOW VOLTAGE MODE:** The control system shall continuously monitor the output of the solar PV plant. Once the pre-set value is exceeded, PCU shall automatically “wake up” and begin to export power provided there is sufficient solar energy and the PCU voltage and frequency are in the specified range.
  2. **ACTIVE Maximum Power Point Tracking (MPPT) MODE (HIGH POWER MODE):** When solar radiation increases further, the PCU shall enter Maximum Power Point Tracking (MPPT) mode. When the solar radiation falls below threshold level, the PCU shall enter in low power mode.
  3. **SLEEP MODE:** Automatic ‘sleep’ mode shall be provided so that unnecessary losses are minimized at night.
- xxii. DC side of each inverter shall be earthed to distinct earth pit through adequate size conductor as per IS 3043. The size of conductor shall be as per the maximum fault current on DC side.
- xxiii. The performance of Inverters at STC conditions must be tested and approved by one of the IEC / NABL Accredited Testing Laboratories / Solar Energy Centre of MNRE/ any other MNRE authorized test laboratories/centers. The test certificates shall be submitted for acceptability of modules.
- xxiv. The PCU shall withstand the environmental tests as per IEC 60068 or equivalent Indian Standard, with the PCU working at full load for at least last half an hour. Environmental test results in respect of PCU/Inverter shall be adequate for rated capacity or any similar design PCU of at least 20 KWp, whichever is lower.
- xxv. Testing of All inverters as per standard for parameters mentioned under inverter shall be witnessed and certified by GAIL India Ltd.

#### 14.14 AC LT SWITCHGEARS:

- A. The scope shall include standard load distribution boards/panels complete with cubicles, protection, metering, bus-bar system, cabling, wiring and other accessories, the quantities/ratings of which shall be finalized during detail engineering approved by EIC. Separate ACDBs shall be used to terminate single PCU output at each of the rooftop location. Details will be furnished at the time of detailed designing.
- B. ACDBs shall be dust, vermin & waterproof and made of Polycarbonate- Glass Fiber Substance (PC-GFS) thermoplastic. The enclosure should be double insulated with protection class II as per IEC 61439- Material and the protection class shall be marked on the enclosure.
- C. All the above boards/panels shall be metal enclosed, 415V switchgear type, complete with suitably rated:
  1. MCCB/MCB



- 
2. Surge Protection Devices
  3. Required no. of MCCBs
  4. Numerical Relays, with the provision of in-built event logger
  5. Required no. of Multifunction meters
  6. Bus bars
  7. Local control switches
  8. Indicators (LED type) as per requirement
  9. All necessary auxiliaries for control and supervisory circuits, and other relays as required
  10. All secondary wiring, terminal blocks, labeling and nameplates, sockets etc.
  11. Cubicle lighting including lighting fixtures and power and communication sockets
  12. Space Heaters
  13. Coordination and provision of necessary contacts and/or ports for integration with Remote Monitoring system
  14. Any other item(s) not mentioned specifically but necessary for the satisfactory completion of system will be in scope of supply.
- D. ACDB should have Class I + II (as per IEC 62305; IEC 61643 and IEC 60364-5-53), 100 kA Surge Suppression inbuilt for surge protection. Surge protection on AC side (Type 2) shall consist of Pre-wired metal encapsulated spark gap-based solution for fire safe and fire proof operation at site, consisting of base part and plug in protection modules. Total discharge capacity/ Lightning Impulse current (Iimp) at 10/350  $\mu$  sec and nominal discharge current (In) at 8/ 20  $\mu$  sec shall be minimum 100 KA for three phase power supply system and 50 KA for single phase power supply system. The discharge capability of L-N connected module shall be 25 KA at 10/350  $\mu$  sec and 8/20  $\mu$  sec. All the L-N & N-E connected arresters shall have built in mechanical health indication. Complete solution shall have voltage protection level (Up) of  $\leq$  1.5 KV to protect the sensitive electronics inside the Invertors, having follow current extinguishing and limiting capability up to 25 KA rms (at 255V) without tripping of even small rating 32 AGL/gG fuse and approved from international independent test labs like KEMA or VDE or UL as per latest IEC 61643-1 or equivalent EN 61643-11 standard. SPDs on the ACDB shall be provided if the same haven't been provided on the PCU.
- Appropriate IP 65 protection shall be provided.
- E. Power bus-bars and insulators shall comply with specifications as given in standards/codes, ensuring adequate operational and safety features. Calculations establishing the adequacy of bus bar sizes for specified current ratings shall be submitted for approval of EIC before placing the order/start of construction of LT Switchgear unit.
- F. Adequate protection measures shall be ensured through means of Circuit Breakers, MCCBs, Contactors, Surge Protection Devices and Fuses. The design



selection of such components shall be ensured as per the system requirement and adequate design calculations/basis shall be submitted for approval of EIC before placing the order/start of construction of LT Switchgear unit.

All the necessary test certificates shall be submitted to establish the compliance of these protection equipment(s)/components to the operational requirements outlined in the respective codes and standards.

- G. It shall be ensured that the equipment offered will carry the required load current at site ambient conditions specified and perform the operating duties without exceeding the permissible temperature as per standards and codes. Continuous current rating at 55C ambient in no case shall be less than 90% of the normal rating specified. The derating factors, if any employed for each component and the basis for arriving at these derating factors shall be clearly specified, duly considering the specified current ratings and ambient temperature of 55C.
- H. Internal wiring shall be ensured through minimum 1.5 sq mm PVC insulated copper wire. The design current carrying capacity of which shall be less than 2A/mm<sup>2</sup> for flexible copper cables/wire. All the internal wiring shall be done through properly chosen color coded wires and neatly dressed for easy identification.
- I. The protection coordination and interlocks shall be ensured. The schematics for the same shall be submitted for approval of EIC before final configuration.
- J. Following drawings and manuals shall be submitted in three copies.
1. General arrangement of panel showing overall dimensions with foundation plan, terminal location, total weight, sectional views, operating mechanism, and Bill of materials
  2. Schematic and wiring diagram for control logic/circuitry
  3. Closing and Opening timing charts of main and auxiliary contacts
  4. Manufacturing schedule and test schedule
  5. Instruction manual along with O&M manual and individual components' catalogue
- K. There should be for measurement and display of Solar Power being fed to the load bus. System should also have the capability to display the minimum, maximum and average solar power being fed to the system on daily/monthly/yearly basis.
- L. The system should also be capable to measure, register and display the solar energy consumption on daily/monthly/yearly basis. The energy meter must show the exact line current, voltage, instantaneous power and energy reading (daily & cumulative).
- M. The metering facility of the system shall comply following minimum specifications:
1. Solar system metering should work accurately for the complete range of energy, voltage, current, frequency and power factor envisaged for this installation. Cumulative KWH will be indicated continuously by default & other parameters through push-button flashing LED visible from the front.
  2. Applicable standards for energy meters (as per the accuracy class requirement):



- IS 14697 – For Class 0.2 and 0.5
  - IS 13010 – For Class 0.5, 1 and 2
3. Accuracy Class Index of communicable multi-function energy meter: 0.5 or better.
  4. Memory: Nonvolatile memory independent of battery backup, memory should be retained up to 1 year in case of power failure.
  5. Software and Communication Compatibility: Shall be compatible to communicate and transfer all types of instantaneous and cumulative energy metering data with the Microprocessor based Data Logger System through RS-485 port/ Ethernet port. All types of necessary software and hardware to connect the meter with Microprocessor based Data Logger System shall also be supplied.
  6. Climatic Condition:  
The meter should function satisfactorily in India with high end temperature as 55°C and humidity up to 95%.

#### **14.15 EARTHING & LIGHTNING PROTECTION:**

- A.** The photovoltaic modules, mounting structure, Balance of system (BOS) and other components of power plant require proper grounding for protection against any serious earth faults.
- B.** Redundant earthing methodology with two independent earth connections from each system has to be ensured for all the systems and equipment as given in the standards.
- C. Technical Requirements:**
  1. Detailed earthing design and calculation shall be submitted for EIC approval. All the necessary statutory approvals, if any required, for the system shall be taken from nodal agencies.
  2. 04 nos. of combined earth pits for DC & AC Side and 02 separate earth pits for LA has to be provided.
  3. Earth electrode shall be copper bonded (coating thickness of copper not less than 250 micron)  
of diameter and length not less than 17.2mm and 3m respectively.
  4. Suitable earth enhancing material shall be filled around the electrode
  5. The earth conductors shall be free from pitting, laminations, rust, scale and other electrical, mechanical defects.
  6. All the equipment is to be earthed using single core Cu cable of at least 6 sqmm
  7. Earth pits can be shorted using GI strip of not less than 25x3mm.
  8. Each PV module frame shall be earthed using Cu cable of 06sqmm cross-sectional area.  
The copper wire shall be connected to earth hole of the module.
  9. Connections between earth leads and equipment shall normally be of bolted type. Contact surfaces shall be thoroughly cleaned before connections.



Equipment bolted connections after being tested and checked shall be painted with anti-corrosive paint/compound. In case, the bolt type configuration is not able to ensure sufficient contact, the same shall be ensured through additional welding between the two. Portion of galvanized structure which undergoes welding at site shall be coated with two coats of cold galvanizing and anti-corrosion paint afterwards.

10. Connections between equipment earthing leads and between main earthing conductors shall be of welded type. For rust protection, welds should be treated with red lead compound and afterwards thickly coated with bitumen compound. All welded connections shall be made by electric arc welding.
11. The welded joint needs to be painted with Cold GI paint (e.g. Zinckote, etc.) according to the manufacturer's specification for paint thickness (17.2 mm rod – minimum 75 microns) applied either through spray mode or direct liquid application. In case the weld joints are coming in the portion buried under earth, an additional layer of Enamel paint needs to be applied on the weld joint.
12. Earth pit shall be constructed as per IS:3043. Electrodes shall be embedded below permanent moisture level. Earth pits shall be treated with salt and charcoal if average resistance of soil is more than 20-ohm meter. On completion of installation, continuity of earth conductors and efficiency of all bonds and joints shall be checked. Earth resistance at earth terminations shall be measured and recorded. All equipment required for testing shall be furnished by contractor. Earth pit inner diameter to be of minimum 100 mm.
13. In general, industrial practice, the standard philosophy of providing redundancy by facilitation of two-point contacts between structure and grid, or structure/equipment and earth pits or structure and structure has to be ensured.
14. Earthing strip shall be laid at minimum depth of 600 MM below the ground.
15. The detailed design and calculations to determine the number of earth pits and size of earth conductor shall be submitted for EIC approval.
16. Resistance between any point of the PV system and earth should not be greater than 5  $\Omega$  at any time.
- D.** Lightning Protection System (LPS) i.e. lightning conductors or mesh shall be provided so as to prevent direct lightning strike into the PV modules.
- E.** It is to be ensured that adequate separation distance is kept between the LPS and PV modules so that no shadow is casted on PV modules.
- F.** The Station/Intermediate Class Early Streamer Emission (ESE) technology Lighting Arrestor (LA) has to be designed (with surge counter, at least 5m high mast and accessories) as per applicable standards so that whole of the Solar PV Plant is protected. Design basis report has to be submitted prior to finalization of drawings for approval of EIC.
- G.** Down conductors for lightening protection shall be as short and straight as practicable and shall follow a direct path to earth electrode.
- H.** Each LA shall have to be earthed through suitable 1C x 70 sq.mm Cu Green cable with two separate earth pits connected together.



- I. Necessary concrete foundation or any other arrangement for holding the lightning conductor in position is to be made after giving due consideration to shadow on PV array, maximum wind speed and maintenance requirement at site in future.
- J. The scheme, drawings and detailed specifications of the PV array lightning protection equipment and earthing arrangement shall be submitted for EIC approval

**14.16 REMOTE MONITORING SYSTEM (RMS)/ MICROPROCESSOR BASED DATA LOGGER SYSTEM:**

- i. The plant parameters shall be measured using Microprocessor based Data Logger System or an equivalent system deployed to monitor the plant centrally and also to study the plant performance. All the parameters from different array/systems at various locations, individually and combined together, must come to the central system (at the existing SCADA monitoring at each site) to provide a live and comprehensive view of the entire solar plant with continuous alert system. The remote monitoring system shall be capable to monitor and record at least 3 months data within the system and compatible to be viewed from anywhere through internet cloud network. The system shall be in accordance with IEC 61724. The Microprocessor based Data Logger system shall have spare capacity with provision of at least 25% expansion without any software or hardware upgradation at Microprocessor based Data Logger system end and further licensing so that any future solar project can be integrated with the same system. The plant monitoring parameters shall include:
  - 1. PV array energy production: Communicable multi-function energy meters logging the actual value of DC and AC Voltage and Current & Energy generated by the PV system and subsequently by PCU shall have to be provided.
  - 2. Solar PV Plant Energy production: Total energy generation (DC) from Solar PV Power Plant as measured at energy meter installed in Solar PV Plant Inverter/PCU input. This reading shall be treated as final energy generation from Solar PV Power Plant for evaluation of Performance Guarantee.
  - 3. Solar Irradiance: One no. of mono crystalline Si-based Solar Reference Cell shall be provided, with its sensor mounted in the plane of the array.
  - 4. Ambient and Solar PV cell temperature
  - 5. Readout shall be integrated with Remote Monitoring System. The reference cell must have an accuracy > 98%. Test certificate for the same shall be submitted. Reference Cell shall be capable to provide instantaneous irradiation (in W/m<sup>2</sup>) at an interval of every 1-minute. Reference Cell shall have communicable RS485 port/ Ethernet port.
  - 6. Electrical performance parameters: All the electrical parameters have to be provided in Microprocessor based Data Logger system. The performance logs from individual electrical equipment/devices have to be made available in



Microprocessor based Data Logger system with a sampling time as given in the standards.

7. Data Log Report: Microprocessor based Data Logger system should be programmed to generate data log report on a daily, weekly, monthly and annual basis. All the key parameters necessary to evaluate the plant performance shall be integrated in this report after finalization of the same. All the values shall correspond to system clock time at the time of recording and in all the reports generated.
8. All the values corresponding to above mentioned parameters shall be recorded with respect to independent system clock of Remote Monitoring System.
9. Monitoring System shall generate GHI value (from reference cell), Ambient and Cell temperature, Generation value (from the DC energy meter installed at Inverter/PCU Input), and percentage controller regulation value (derived from Solar-Grid Energy Management System) on instantaneous/ average/ integrated basis as required in the assessment procedure for Performance Guarantee Test and Yearly Performance Evaluation Test. The same shall be used to assess the system performance and to establish Performance Guarantee Test (PGT) of the system as described in the SCC.
10. Technical Requirements: Microprocessor based Data Logger system shall have the provision to perform the following functions:
  - Acquisition and display of data, status, and trends
  - Monitoring of all the parameters from Switchgears (especially numerical relays/
    - meters) and Inverters
  - Display and storage of measured values at remote monitoring systems through
    - intranet/internet cloud network
  - Display and storage of derived/ calculated/ integrated values
  - Display and Storage of events and trends
  - Generate, store and retrieve Event Reports from Inverters/PCUs and Numerical
    - Relays/ meters
  - Generate, store and retrieve user configurable Periodic Reports
  - System self-supervision
  - Backup facility for data backup at every three months on CDROM/tapes/portable
    - storage devices through cloud network
      - A graphical daily and monthly generation report as well as generation w.r.t. radiation shall be made available at cloud network. All the data shall be made available on internet cloud network provided along with the Data Logging System.
      - The following data to be monitored:
        - Grid summary



- AC output voltage
  - kVA
  - Frequency
  - Inverter summary
    - DC Energy Input (key parameter to be used for Plant Performance evaluation)
    - AC output voltage
    - kVA
    - Frequency
    - Power Factor
    - Current
  - DC summary
    - DC voltage
    - Current
    - DC power input
  - Site Summary (Field data) and other data
    - Solar Insolation Data
    - Ambient and Cell temperature
  - Solar Power Plant generation
    - DC Energy Meter at Inverter/PCU Input
    - AC Energy Meter reading at Captive Load Bus
11. Data logging system/software shall allow visualization, monitoring and service of the installation. The data logger shall be web enabled. It should be possible to access the data logger with any standard web browser like Internet Explorer, Google Chrome, Mozilla, Safari etc. and for this purpose, relevant software/ hardware will be supplied by the successful bidder. In addition to the web portal, it should also be possible to retrieve the data directly from the data logger. The software for access/ visualization of data from data logger should also be provided. Necessary executable files, if any, will be required to be given on a CD/any other storage device along with lifetime license (if applicable).
12. Communication interface: The system should offer minimum no. of communicable ports (RS 485/Ethernet ports for each Inverter) interface to facilitate monitoring of the system at local monitoring system for the proposed system and to cater any future expansion for 25% of the proposed capacity.
13. A internet /dongle/Router service shall be ensured to communicate this Data Logger system through internet cloud network provided along with the Data Logging System. The data storage shall also be ensured in the system's internal memory space (as defined above, for minimum 3 months) which shall be able to capacitate access of data later due to any intermittent failure of internet access or any other technical constraint.





14. A complete and comprehensive "RMS monitoring solution" report shall be made available to:
- Know what is produced in real time
  - Have detailed analytics to understand if the power generated is 'as expected/designed', and
  - Know any issues with field equipment and correct, through effective maintenance.
15. UPS supply will be provided by vendor to Microprocessor based Data Logger system and its auxiliaries. The power backup for the entire system should be at least for 30 minutes.
16. Data Acquisition system installed will be integrated with the existing SCADA system of GAIL (India) Ltd. at each of the sites.

**14.17 CABLING:**

a) **SOLAR DC CABLE:**

The solar DC Cable shall be flexible with Class-5 annealed Multistrand tinned copper conductor, Rated DC voltage 1.5 KV with electron beam cross linked polymer, temp range -40°C to +100°C, Halogen-free, Cold-resistant, flame-retardant, Temperature-resistant, UV-resistant, Ozone-resistant, Multi-core cables shall not be used. Minimum 6sqmm cross-sectional area is required.

b) **AC CABLE:**

The power cable shall be 1.1kV grade (3- phase, 4- core), heavy duty, stranded, PVC type-A/XLPE insulated, galvanized steel wire/strip armored, fire/flame retardant low smoke (FRLS) extruded PVC type ST-1 outer sheathed. Outgoing cables from Inverters are to be of Copper. The conductor material and size to be such as to meet the voltage drop criteria as per mentioned in BOM. The cables shall, in general, conform to IS 1554 Part-I&II/IS-7098 Part-1 and other relevant standards. Outdoor AC cables shall have a UV-stabilized outer sheath. Size of the power cable should be minimum of 4CX10 sq.mm. DC and AC Loss calculations have to be submitted by the bidder for approval.

c) **CONTROL CABLE:**

The cable shall be 1.1kV grade, heavy duty, stranded copper conductor, PVC type-A insulated, galvanized steel wire/strip armored, flame retardant low smoke (FRLS) extruded PVC type ST-1 outer sheathed. The cables shall, in general, conform to IS 1554 Part-I & other relevant standards. Size of the control cable should be minimum of 2.5 sq.mm.

d) **TECHNICAL REQUIREMENTS FOR AC AND CONTROL CABLES:**

- All power cables shall be tested at the site as per the standard in front of EIC/nominated officer present at the site.



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2. PVC insulation shall be suitable for continuous conductor temperature of 70C and short circuit conductor temperature of 160C.
  3. All the cables from Distribution board to POC shall be armored, to fetch mechanical protection of sheath, insulation and conductor.
- e) GENERAL / COMMON REQUIREMENT:
1. Straight through joints should be avoided.
  2. The cables shall have an ambient operating temperature range of -10C to +60C.
  3. Cable terminations shall be made with suitable cable lugs & sockets etc., crimped properly and passed through brass compression type cable glands at the entry & exit point of the cubicles.
  4. The cables shall be adequately insulated for the voltage required and shall be suitably color coded for the required service.
  5. Data sheets of individual cable sizes shall be submitted. Drum numbers and drum length details shall be submitted with each consignment.
  6. Cables must be selected so as to minimize the risk of earth faults and short-circuits.
  7. If the data transmission length is more than 100m distance or as required, Optical Fiber cable shall be used. The length and quantity of the cables shall be as per the site requirement. Vendor has to assess and supply and install accordingly.
  8. De-rating factors for various conditions of installations, including the following but not limited to, shall be considered while selecting the cable sizes:
    - Variation in ambient temperature for cables laid in air
    - Grouping of cables
    - Variation in ground temperature and soil resistivity for buried cables.
  9. Following minimum marking shall be provided on the outer sheath:
    - a. Cable size and voltage grade
    - b. Word 'FRLS/'PVC' at every 5 mt
    - c. Sequential marking of length of the cable in mt at every 1 mt

In addition, the printing shall be progressive, automatic, in line and marking shall be legible and indelible

10. Cables are to be routed neatly in standard manner through GI perforated cable trays & cable marker to be placed for future identification. For array wiring, suitable cable tray or metal conduit with proper support shall be provided and fastened in accordance with relevant standards, industry codes and Indian Electricity Grid Code.



Cable trays shall have standard width of 100mm, 150 mm, 300 mm & 600 mm and standard

11. lengths of 2.5 meter. Thickness of mild steel sheets used for fabrication of cable trays and fittings shall be minimum 2 mm. The thickness of side coupler plates shall be minimum 3 mm. cable tray shall be covered with suitable GI sheets. For protection of unarmored cables, suitable conduits shall be provided.
  12. The DC cables from the SPV module array shall run through a tray or GI Pipe of adequate
  13. diameter with a minimum wall thickness of 1.5mm.
  14. The switches/circuit breakers/connectors required should conform to IEC 60947 (Part-I, II & III) or IS 60947 (Part-I, II & III) EN 50521.
- f) Cabling on DC side of the system shall be as short as possible to minimize the voltage drop in the wiring. Voltage drop on the DC side from array to the inverter should not be more than 1%. In the light of this fact, the cross-sectional area of the cable should be so chosen such that the voltage drop introduced by it shall be within 1% of the system voltage at peak power. Necessary design calculations in this regard duly shall be submitted to EIC for approval.
- g) For the AC cabling from inverter/PCU to existing Feeder Bus, armored PVC insulated cables shall be used. The sizing of cable shall be based on the maximum load flow considering the voltage drop within the permissible limit of 1% and maximum short-circuit withstand capability. The design calculations for sizing of the cable shall be submitted for EIC approval. The complete cable shall be laid through trench or tray (including preparation of trenches and trays with manpower and material, if required) and proper arrangement shall be made for end termination, glanding and lugging with supply of material.
- h) Overload protection is to be provided. Design Overload capacity of 125% of continuous rating for 10 sec has to be ensured. The principle aim for this protection is to reduce the over voltage to a tolerable value before it reaches the PV or other subsystem components. The source of over voltage can be lightning or any other atmospheric disturbance or internal system disturbance.

#### 14.18 DOCUMENTATION:

Documents to be provided along with bid:

- a. Signed copy of Technical specification & scope of work provided
- b. Technical catalogues/brochures of offered components/system
- c. 'Daily energy delivered' graph by Solar System for whole year clearly showing the losses at different stages and at actual ambient temperatures for the whole year.



- d. Efficiency curve of the inverter at loads/output from 10% to 90% (Input to Output including MPPTs) and IV curve of SPV modules.
- e. Self-power consumption details of the Inverter at different loads and at Night.
- f. Certification to comply MNRE guidelines
- g. Design document with tentative BOM including component ratings and make.
- h. Copy of Purchase Order and/or Performance certificate of installed SPV system as per Pre- Qualification Criteria mentioned in the document.
- i. Technical Data sheet with details.

**14.19 Minimum technical data to be furnished by the bidder in his offer (Minimum Technical required shall be furnished by GAIL)**

- A. Total Power rating of Solar System
- B. System power rating (KWp)
- C. Solar Panel
  - 1. Make and model no.
  - 2. Power rating of the module
  - 3. Name of the manufacturer of PV Module
  - 4. Name of the Manufacturer of Solar cells
  - 5. Country of origin (separately for solar cells and module)
  - 6. Peak Wattage,  $I_m$  and  $V_m$  for the module
  - 7. Operating voltage of array
  - 8. Efficiency of the module
  - 9. Fill Factor of the module
  - 10. Variation band of rated output of the module
  - 11. Galvanization thickness of the module mounting
- D. Power Conditioning Unit (PCU)
  - 1. Make and Model no
  - 2. Power rating
  - 3. Output voltage and frequency range
  - 4. Voltage range of grid synchronization (from nominal)
  - 5. Frequency range of grid synchronization (from nominal)
  - 6. Communication interfaces offered
  - 7. Data communication protocols
  - 8. Input voltage range for MPPT operation
  - 9. Efficiency
  - 10. Voltage and Current THD
  - 11. IP protection
  - 12. Noise level
  - 13. Idling current
  - 14. Surge protection on DC and AC side
  - 15. Name of URL at which the purchaser can view the system performance data
  - 16. Details of all cables to be supplied by the firm
  - 17. Details of RCD (in case galvanic isolation doesn't exist in PCU)



**14.20 DOCUMENTS TO BE PROVIDED AFTER AWARD OF PO AND BEFORE SUPPLY OF SOLAR PV SYSTEM:**

- i. Technical catalogues/brochures of the components/system being supplied.
- ii. I-V curve of each PV module with serial No. for each module
- iii. Execution Schedule of the project
- iv. Final Bill of Material
- v. Final drawing for GAIL(India) Ltd. approval
- vi. QAP (Qualify assurance Procedure) for the System for GAIL(India) Ltd. approval.
- vii. FAT (Factory Acceptance Test) procedure for GAIL(India) Ltd. approval.
- viii. SAT (Site Acceptance Test) procedure for GAIL(India) Ltd. approval.
- ix. Structural design for installing SPV system prepared by structural engineer and submitted for approval to GAIL(India) Ltd. Any changes in structural design suggested by GAIL(India) Ltd. shall be binding on the contractor.
- x. Earthing Design and Calculations (both DC & AC)
- xi. Earthing Layout (both DC & AC in AutoCAD file and PDF)
- xii. Cable loss calculations (both DC & AC)
- xiii. Module Array layout (in AutoCAD file and PDF)
- xiv. Shading Analysis report (in AutoCAD file and PDF)
- xv. PV system report showing PR (in AutoCAD file and PDF)
- xvi. Wiring diagram (both AC and DC) (in AutoCAD file and PDF)
- xvii. Communication SLD (in AutoCAD file and PDF)
- xviii. Electrical SLD (in AutoCAD file and PDF)
- xix. LA radius calculation and position layout (in AutoCAD file and PDF)
- xx. Following additional documents must be submitted to GAIL for approval;
  1. Solar Inverter GTP and test certificates
  2. Solar PV modules test certificates
  3. Material test certificate for MMS
  4. DC cable GTP and test certificates
  5. AC Cable GTP and test certificates
  6. ACDB GTP
  7. DCDB GTP
  8. LA GTP and test certificates
  9. Earthing equipment GTP and test certificates
  10. MFM and Metering device GTP
  11. WMS and Datalogger GTP
  12. Communication cable GTP and test certificates
  13. Earthing cable GTP and test certificate

**14.21 AFTER SUPPLY AND COMMISSIONING OF SOLAR PV SYSTEM AT DIFFERENT SITES OF NCR UNDER GAIL (INDIA) LTD. NOIDA**



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- i. Operation and Maintenance Manual
  - ii. As Built drawings and system details
  - iii. Final BOM with make and rating of each component along with OEM Manuals of Inverters.
  - iv. A one (01) day classroom and hands-on training shall be given to GAIL (India) Ltd. personnel for operating and maintaining
  - v. Completion drawings: Contractor shall submit complete drawings set before start of the job and after completion of the work with changes incorporated. These "As Built" drawings shall be submitted in the form of four sets of CDs' and four portfolios (300 x 450 mm) each containing complete set of drawings on approved scale indicating the work as - installed. These drawings shall clearly indicate following's:
    - o Location and rating of PV arrays.
    - o Location and details of panels, and other particulars including approved fabrication drawings of panel.
    - o Complete wiring diagram, as installed and scheduled showing all connections in the complete electrical system.
    - o Routing and particulars of all cables and trays.
    - o Single line diagram, power schematic, control schematic with detailed bill of materials, showing makes, types and description of all components and accessories.

The supplier shall provide easy-to-use illustrated installation and operation manual in English for easy installation and trouble-free usage. Manual shall contain complete system details such as array layout, schematic of the system, working principle, clear instruction on regular maintenance, trouble-shooting of the solar generating system, emergency shutdown procedure, etc.

1.

#### **14.22 AFTER SALES SERVICE:**

The details of service centers in India shall be provided along with the offer. All essential materials and manpower shall be placed at the service centers to ensure quick and efficient after sales service.

#### **15.0 INSPECTION AND TESTING:**

- a. All materials to be supplied shall be subject to inspection and test by GAIL (India) Ltd. before dispatch. The bidder shall provide all necessary facilities, labs, instruments and labor for testing
- b. All major/critical items (Modules, Cable and DC distribution Board) shall be inspected and tested through third party inspection agency enlisted with GAIL (India) Ltd. as on date of award of PO/LOA during manufacture and in assembled condition prior to dispatch in accordance with the standard practice/QAP of the manufacturer and applicable Standards. Copies of test certificates for such inspections shall be supplied before dispatch of the equipment. Cost quoted by the bidder should be including the



inspection charges as well. No equipment shall be delivered without prior written clearance from GAIL (India) Ltd.

- c. Party must give GAIL (India) Ltd. inspection call at least 15 days in advance informing inspection dates so that GAIL (India) Ltd. personnel may also conduct the factory acceptance inspection on the same dates along with Third party inspector

#### 16.0 GUARANTEE / WARRANTY

- a. A comprehensive warranty including mechanical structures, electrical works and overall workmanship of the solar system must be given for 1 year (One year) from the date of successful commissioning at site.
- b. Any defect found in SPV module, PCU or any other accessories during warranty period will be replaced by the vendor free of cost within a period of maximum one month without hampering functioning of the plant.
- c. The system must be designed for highest possible performance ratio with minimum of 75%. In case the guarantee is not met in two consecutive years, the PBG will be forfeited. The calculation is as given below:

**Annual Performance ratio guarantee of SPV plant:** The System should be designed to achieve highest possible performance ratio (**minimum 75 %**).

Performance Ratio is calculated as below:

$$PR = \frac{AC \text{ Yield}}{\text{Installed Capacity} \times \text{Plane of Array Irradiation}} \times 100\%$$

Though performance ratio would be the main performance to be guaranteed by the EPC Company in the tender, it should also take care to meet the capacity utilization factor.

Against the average Global Horizontal Irradiance (GHI), CUF should be approximately as specified in the table below:

$$\text{Capacity Utilisation Factor(CUF)} = \text{Energy measured (kWh)} / (365 \times 24 \times \text{installed capacity of the plant}).$$

Average GHI (kWh/m <sup>2</sup> /Day)	CUF
6	19%
5.5	18%
5	16%
4.5	15%
4	13%

#### 17.0 TESTS LIST:



The manufacturer shall carry out routine tests at his works and shall maintain records for the same. Acceptance testing shall be carried out by GAIL (India) Ltd. representative or by third party inspector:

**As already given above:**

### 18.0 QUALITY TESTING ON PV MODULES:

Modules used in solar panels shall have IEC 61215 Ed 2 or latest compliance certificate. The qualification testing procedure is defined in IEC 61215 Ed 2 or latest to examine the impact of mechanical, thermal and electrical stress on power output. The bidder shall submit appropriate type approval certificate for the offered solar modules from accredited test laboratory.

### 19.0 METHOD OF TESTING:

#### 19.1 VISUAL INSPECTION:

Each module shall be carefully inspected under an illumination of not less than 1,000 lux for the following conditions:

- a) Racked, bent, misaligned or torn external surfaces.
- b) Broken / cracked cells
- c) Faulty interconnections or joints
- d) Cells touching one another or the frame
- e) Failure of adhesive bonds; bubbles or delamination forming a continuous path between a cell and edge of the module
- f) Faulty terminations and exposed live electrical parts
- g) Junction box should have common terminals with suitable blocking diode to prevent reverse current flow. Blocking diode in solar module junction box is required in case of using DC Junction box.

#### 19.2 BILL OF MATERIAL (BOM)

PROJECT NAME		GAIL SOLAR POWER SYSTEM	INDIVIDUAL SOLAR SIZE		25KWp
S. N.	Material Description	Rating/Specification	Certifications	Min. Qty. for 330KWp	UOM
1	SPV Modules	<b>330 or Higher Wattage</b> PID resistant, Perc Mono crystalline Modules, With Inbuilt Bypass Diode, Frame is made of Aluminum Anodized with Power Tolerance + 5Wp, With RFID Tag inside module,	IEC 61215/ISI4286/IEC61730-Part-1 for construction, Part-2 for Testing/Safety, IEC 61701. The PV modules should be PID resistant and	76	Nos.





		Product Warranty up-to 10 Years and Performance Warranty Up-to 25Year. Vikram Solar / Waaree/ Adani.	tested for PID as per IEC 62804. BIS certification required.		
2	String Inverter	<b>Grid-tied String Inverter, Three Phase, 50 Hz</b> Inverter Shall house MPPT, and output shall be compatible with Grid Frequency, IGBT/MOSFET Microprocessor, Efficiency-98% or above. ABB/SMA/Delta/Hitachi/Luminous or GoodWe/ Equivalent with prior approval of GAIL.	Inverter shall comply with IEC/equivalent BIS standard for efficiency measurements and environmental tests as per IEC 61683/IS 61683 and IEC 60068-2(1,2,14,30)/Equivalent BIS Std., MPPT as per IEC60068-2(1, 2, 14, 30)/Equivalent BIS standard.	1	No.
3	Module Mounting Structure with Hardware	<b>Hot Dip Galvanized Steel Structure</b> with 85-micron galvanization thickness SS304 hardware for mounting modules over MMS > Designed for wind speed as per IS-875 part 03.	IS 800/801 for design of steel members- IS 875 for wind load analysis. - IS 1893 – 2002: Criteria for earthquake resistant design of structures. - IS 4759 & IS 2629 for galvanizing coating & process. Vendor will use the Fresh steel/Metal from TATA/ SAIL / Jindal and the same may be fabricated from anywhere; MTR (Material test report is may be asked by GAIL for metal/steel).	1	Set
4	DC Cable	<b>6 sq.mm Single Core- Cu Cable (Red &amp; Black)</b>	IEC 60332 - 1 & 2 / EN 50267 - 1 & 2 /	As per design	



		Flexible solar DC cable with Class-5 annealed Multistrand tinned copper conductor, Rated DC voltage 1.5 KV with electron beam cross linked polymer, temp range - 40°C to +100°C, Halogen-free, Cold-resistant, flame-retardant, Temperature-resistant, UV-resistant, Ozone-resistant Lapp/Leoni/Helu/ Apar only.	EN 60648 - 2/ EN 50618 / EN 50396		
5	AC Cable (INV to ACDB)	4C Cu XLPE 1.1 kV Cable, (Armored Only, KEI /Polycab/ Havells)	IEC 60227/IS 694, IEC 60502/IS1554 standards, IS /IEC 69947	As per design	
6	AC Cable (ACDB to POC)	4C Cu XLPE Ar. 1.1 kV Cable (Armored Only, KEI /Polycab/ Havells)	IEC 60227/IS 694, IEC 60502/IS1554 standards, IS /IEC 69947	As per design	
7	DCDB	With DC SPD (1000V) type 02 and 16A curve C 2P MCB (1000V) at each string in a polycarbonate IP65 (min) Box Schneider/Hensel/TYCO only.	All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS 60947 part I, II and III	As per design	
8	ACDB	With SPD-Type02, suitable MCB/MCCB, Phase Indicator & MFM, In polycarbonate IP-65 (min) Box Schneider/Hensel /TYCO only.	All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS 60947 part I, II and III	As per design	
9	Earthing Strip	25x3mm HDG GI Strip	IS 3043	As per design	
10	Earthing Cable	1C 6 sq.mm Cu green cable, Lapp/Leoni/Helu/Apar only.	IS 3043	As per design	
11	Earthing Station with accessories	Maintenance Free Earth Electrode with Chemical Earthing Set (3 Mtr. long, 17.2 mm Dia, Copper	IS 3043 (refer 3.13 of Technical Document for more information)	04 nos. (AC+DC), 02 nos. for LA	



		Bonded, thickness of 250 microns; with Carbon based ground enhancing material with suitable GI Clamp, Heavy duty Poly propylene Circular earth pit Chamber), JMV/VNT/TEKSAI/U-Protec only.			
1 2	LA Earthing Cable	1C x 70 sq. mm Cu Cable (Green), Lapp/Leoni/Helu/Apar only	IS 3043 (refer 3.13 of Technical Document for more information)	As per design	
1 3	Lightening Arrestor with surge counter accessories	ESE Type LA with appropriate radius to cover entire installation area JMV/VNT/SABO/Phenoex / DeHN only	IS 2309:1989 (refer 3.13 of Technical Document for more information)	As per design	
1 4	MC4 Connector Pair - Male & Female	IP 68 Complied; multicontact Almex or Leoni	IP68, TUV Certified	As per design	
1 5	Conduit Pipe & Accessories	ONLY GI pipes are allowed.	-	As per design	
1 6	Cable Tray	GI perforated with Cover, clamp & hardware.	-	As per design	
1 7	Flexible Pipe & Saddles	ONLY GI pipes are saddles are allowed	-	As per design	
1 8	Cables Lugs	Pin Type, Ring Type, Tubular Type Tin coated copper Lugs Comet/ Dowells	-	As per design	
1 9	Cable Ties	UV protected, ISI Marked material shall be used	-	As per design	
2 0	PVC numbering ferules	As per site requirement	-	As per design	
2 1	Aluminum Cable Tag	As per site requirement	-	As per design	
2 2	Communication Cable RS485	Shielded Tinned Cu conductor armored, Polycab/Belden/Lapp/equivalent.	-	As per design	



2 3	Weather Monitoring System	1 no. mono-crystalline Si based Reference Cell, 1no. of Module temperature sensor & ambient temperature sensor each. Webdin/Also Energy/Equivalent	-	As per design	
2 4	Energy Meter	0.5 Accuracy class, Schneider/Secure/Equivalent	-	As per design	
2 5	Data Logger	For remote monitoring of plant	-	As per design	
2 6	Automatic RPR	refer SOW; C&S, Schneider/Equivalent	-	As per design	
2 7	Safety Stickers / Danger Plate	As per GAIL's requirement. 5 Nos. minimum per site as per CEA rules.	-	As per design	

**\*\* The same shall be applicable for 3KWp Solar system.**

**\*\* NOTE: This is a tentative Bill of Material (BOM) and some items if not included should be referred in the Technical Speciation Document.**

### 19.3 Performance at STC (Clause 10.1 of IEC 61215 Ed 2 or latest):

The current-voltage characteristics of the module shall be determined in accordance with IEC 60904-1 at a specific set of irradiance and temperature conditions. Performance of PV-Module shall be generally evaluated at Standard-Test-Conditions (STC) as defined in IEC 60904 standards:

- I. Cell temp. of 25° C,
- II. Incident solar irradiance of 1000W/m<sup>2</sup>,  
Spectral distribution of light spectrum with an air mass AM=1.5

**19.4** All PV modules supplied shall be accompanied with I-V curves (tested in the manufacturing unit, clearly indicating the serial number, batch number, date and country of origin).

### 19.5 ACCEPTANCE CRITERIA:

The module is deemed to have passed the tests if the sample meets the following criteria;

1. There is no evidence of a major visual defect such as a cracked or broken window, bubbles or de-lamination in the encapsulant etc.
2. There is no cell breakage and no water infiltration into terminal boxes.
3. No sample exhibits any open circuit or ground fault.
4. No visible evidence of major defects that may affect performance of the module.
5. Insulation Resistance not less than 50M-ohm at 500 V DC.



6. Degradation of performance may not exceed 5% after each single test or 8% after the whole sequence.

**19.6 SPARE PARTS:**

Bidder shall recommend and furnish details for essential spare parts required for at least 10 years after completion of guarantee period and provide the details of nearest source of availability.

Hardware such as clamps. Pipes, fittings, cable tags, screws, nuts and bolts any other items required along necessary tools for 5 years power plant maintenance needs to be provided.

**19.7 COMPLETION TESTS AT SITE:**

During commissioning of the total SPV System, following tests will be carried out.

- a. Function tests of all PV modules and monitoring systems
- b. Operation tests of all the PV modules and monitoring systems

The operation tests are accepted as fulfilled only after trouble free operation on any clear sunny day as decided by EIC soon after the bidder declares SPV system to be operational including feeding power to local LT Panel. Only on successful fulfillment of the tests, the commissioning certification will be issued.

**19.8 COMPLETION REPORT:**

1. The contactor shall submit Completion Report of the project to GAIL/EIC. The Completion Report shall consist of the following documents.
  - a. Copy of the Commissioning Certificate issued by EIC after successful completion of Functional and Operational tests.
  - b. Technical documents as per scope of work & technical specifications according to which the work has carried out.
  - c. Four sets of as built drawings showing therein modification and corrections, if any, made during the course of execution signed by the EIC. A soft copy of as built drawings shall also be submitted.
  - d. Copy of complete as built layout of the SPV System including interconnection with GAIL's power supply system.
  - e. Copies of test Certificates for type / routine tests performed on major equipment.
  - f. Operation & Maintenance Manuals
  - g. Copies of Statutory clearances / permissions.
  - h. Certificate / undertaking for making payment of all statutory requirements, duties, labor wages and others for having made payment.
  - i. An undertaking confirming the payment of all statutory duties, taxes (document (s) having evidence of paying statutory duties, taxes etc. as per requirement of concerned statutory authorities).
  - j. Certificate regarding completion of the facility in all respect by the EIC.



2. GAIL/EIC shall issue Completion Certificate after verifying from the completion documents and satisfying itself that the work has been completed in accordance with details set out in the construction and erection drawings and the contract documents.
3. No Completion Certificate shall be given nor shall the work be deemed to have been executed until the export of generated solar power commences to local LT Panel, statutory requirements are completed and all scaffolding, surplus materials and rubbish is cleaned off the site completely.

**19.9 TOOLS & MEASURING INSTRUMENTS:**

Following tools & measuring instruments to be maintained at plant: AC-DC clamp meter, earth resistance tester, Megger, spanner set, screw driver set, crimping tool, Allen key set, rough file kit, weighing machine, cutting pliers, nose pliers etc.

**19.10 RECORDS TO BE MAINTAINED:**

For analysis purpose following records can be maintained at plant level

- a. Generation On & Off time
- b. Energy generation
- c. Fault details: Type of faults, time of faults & its duration
- d. Details of O&M activity undertaken.

**19.11 OTHERS:**

1. Half yearly Functional Checks of Protection circuits and Switchgear
2. Checking for loose structural nuts and bolts and cable terminations between PV modules, PV arrays, line accessories, transformers and associated switchgear on the HT side etc. Retightening connection and replacing cables/MC4 connectors if necessary.
3. The repair/replacement work shall be completed within 48 hours from the time of reporting the fault.
4. During the five-year maintenance period, all replacements are to be done by contractor/vendor supplied material.
5. A half yearly performance report of the plant inclusive of energy generation data shall be provided as per mutually approved format.



CPRI (B)	No	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes Up to 1000 AH	Yes (up to 10KVVA) NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	NO
ERTL (N)	No	Only Electronics & luminaire NABL	Yes NABL Accredited	No	Yes (up to 5KVVA) NABL Accredited	Yes NABL Accredited	Yes (up to 5KW) NABL Accredited	Yes NABL Accredited	NO
		Accredited			NABL Accredited		NABL Accredited		
UL (B)	Yes (IEC61215 IEC 61730 Pt.II and IEC 61701) upto400Wr NABL Accredited	Yes (except battery) NABL Accredited	Yes NABL Accredited	No	Yes (up to 6KVVA) NABL Accredited	Yes NABL Accredited	Yes (up to 6KW) NABL Accredited	Yes NABL Accredited	NO
TUV Rhineland	Yes (IEC61215 & 61730 Pt-II) upto400Wr NABL Accredited	NO	Yes NABL Accredited	No	Yes (up to 10KVVA) NABL Accredited	Yes NABL Accredited	Yes (up to 10KW) NABL Accredited	Yes NABL Accredited	NO
Inter Tek	No	Only Electronics & luminaire NABL Accredited	Yes NABL Accredited	No	Yes (up to 5KVVA) NABL Accredited	Yes NABL Accredited	Yes (up to 5KW) NABL Accredited	Yes NABL Accredited	NO
ETDC (Gandhi Nagar)	No	No	No	No	No	No	No	No	Yes MNRE Accredited

**19.12 AUTHORISED TESTS AND CENTRES**

1. PV modules must qualify (enclose test reports/ certificate from IEC/NABL accredited laboratory) as per relevant IEC standard. Additionally, the performance of PV modules at STC conditions must be tested and approved by one of the IEC / NABL Accredited Testing Laboratories including Solar Energy Centre.
2. Test certificates / reports for the Balance items/components of the system can be from any of the NABL/ IEC Accredited Testing Laboratories or MNRE approved test centers. The list of MNRE approved test centers will be reviewed and updated from time to time. Details of test lab as declared by MNRE in guidelines Ref no 30/11/2012-13 NSM is as below:

**Accredited Test centers for MNRE Off-Grid Programme**

Lab/ Organization	PV Module	Lighting Systems		Battery	Inverter >100 W		Charge Controller		Solar Pumping Systems
		as per MNRE Specifications	Environmental		Efficiency	Environmental	protections	Environmental	
NISE	Yes (IEC61215 upto100W <sub>p</sub> ) NABL Accredited	Yes MNRE Accredited	Yes (Including IP) MNRE Accredited	Yes MNRE Accredited	Yes (upto 10KVVA) MNRE Accredited	Yes (Including IP) MNRE Accredited	Yes MNRE Accredited	Yes (Including IP) MNRE Accredited	Yes MNRE Accredited
ERTL (east)	STC Test Facility	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes Up to 1000AH	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	NO
ETDC (B)	Yes (IEC61215) under ICEEE-CB, IEC 61701 (upto100W <sub>p</sub> ) NABL	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes Up to 100 AH	Yes (up to 3KVVA) NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	Yes NABL/MNRE Accredited	NO

**20.0 ANNUAL MAINTENANCE CONTRACT:**

**20.1 Preventive Maintenance:**

- i. Cleaning of PV Panels to ensure guaranteed generation.
- ii. Regular checking of inverters, electrical & Electronic components, Switchgears, performance & efficiency.
- iii. Checking of earthing resistance once in a year.
- iv. Checking of cables and wiring for loose connections or damages.
- v. Checking and rectification of Module Mounting Structures and Hardware.

**20.2 Predictive Maintenance:**

- i. Regular monitoring of the plant generation.
- ii. Regular monitoring of equipment including health.

**20.3 Breakdown Maintenance:**

- i. Fault identification and temporary rectification to make the plant running.
- ii. Final repairing of the plant.

**20.4 Performance Monitoring:**

- i. Real time plant and equipment monitoring.
- ii. Real time generation monitoring.
- iii. Identification of parameters affecting the generation and their optimization.

**20.5 Spares & Consumables:**

All consumables such as Crimping Compound, PVC tape, cable tie, lugs, conduit pipes, saddles, hooks, screws, washers, clamps, ferrules, connectors, galvanized spray, sealing agent, anti-corrosion compound, cables (both DC and AC), screw-set, and other tools and tackles are to be provided.

**20.6** Regular monitoring through Customer login & vendor login (via App or in PC) for remote monitoring of the installed system to check any breakdown (if any). This is other than the SCADA system.

**21.0 CHECKLIST OF TECHNICAL DOCUMENTS TO BE SUBMITTED ALONG WITH BID:**

S. No	Technical Documents	Submitted / Not submitted
1	Signed copy of Technical specification & scope of work Provided	
2	Technical catalogues / brochures of offered components / system	





3	Daily energy delivered' graph by Solar System for whole year clearly showing the losses at different stages and at actual ambient temperatures for the whole year.	
4	Efficiency curve of the inverter at loads/output from 10% to 90% (Input to Output including MPPTs) and IV curve of SPV modules.	
5	Self-power consumption details of the Inverter at different loads and at Night.	
6	Certification to comply MNRE guidelines	
7	Design document with tentative BOM including component ratings and make.	
8	Copy of Purchase Order and/or Performance certificate of installed SPV system as per Pre-Qualification Criteria mentioned in the document to be entered in the following table.	
9	<b>Solar PV modules datasheet and test certificates</b> Have you read and accepted the Technical data sheet of PV, its testing procedure and all test certificated as per IS code mentioned, available with you?	
10	<b>Solar Inverter GTP and test certificates</b> Have you read and accepted the string inverter requirement, its technical data sheet, its testing procedure and all test certificated as per IS code mentioned, available with you?	
11	<b>Solar Charge Controller (3KWp &amp; 25KWp off-grid) GTP and test certificates</b> Have you read and accepted the SCC requirement, its technical requirement, its testing procedure and all test certificated as per IS code mentioned, available with you?	
12	<b>Material test certificate for MMS</b> <b>MMS Design and Drawings</b> Have your read and accepted the technical data sheet of Structure? its testing procedure and all test certificated as per IS code mentioned, available with you?	
13	DC, AC, Earthing and Communication cable GTP and test certificates	
14	ACDB GTP	
15	DCDB GTP	
16	LA GTP and test certificates	
17	Earthing equipment GTP and test certificates	



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<b>18</b>	MFM and Metering device GTP	
<b>19</b>	WMS and Datalogger GTP	
<b>20</b>	Have you read the complete Generation Guarantee terms & Conditions?	



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# **SECTION-VII**

## **SCHEDULE OF RATES (SOR)**

### **ATTACHED SEPARATELY**