# PFC CONSULTING LIMITED

**(A wholly owned subsidiary of Power Finance Corporation Limited -
A Government of India Undertaking)**

## BID DOCUMENT
## FOR

# Survey & Preparation of Report for "Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)" using Modern Survey Techniques.

PFC CONSULTING LTD.
(A wholly owned subsidiary of Power Finance Corporation Ltd.)

**Corporate Office**
**9th Floor, A-Wing, Statesman House, Connaught Place, New Delhi- 110001**

**08.08.2025**

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# PFC CONSULTING LIMITED

**(A wholly owned subsidiary of Power Finance Corporation Ltd. -
A Government of India Undertaking)**

## BID INVITATION LETTER

**Online bid is invited in single stage two part system from the Survey Agencies who are Technically Empaneled under Category "A" with PFCCL for survey work and preparation of survey report for ISTS Assignment of PFCCL.**

**PFC Consulting Ltd. invites E-Tenders through GeM portal for appointment of Survey Agency for Survey & Preparation of Report for "Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)" using Modern Survey Techniques.**

| | | |
|---|---|---|
| a) | Tender Id | **As displayed on e-procurement portal** https://gem.gov.in |
| b) | Opening date of Tender downloading | **08/08/2025 from 19:00 hrs. (IST)** |
| c) | Submission date of E-bid | **15/08/2025 till 19:00 hrs. (IST)** |
| d) | Opening of E-bids (Technical) | **15/08/2025 till 19:30 hrs. (IST)** |
| e) | Opening of E-bids (Financial) | **To be intimated** |

**Note:**

1. Tender Notice and Tender Document are available on PFC Consulting Limited (PFCCL) website and can be downloaded from https://www.pfcclindia.com or from the e-procurement portal https://gem.gov.in. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the PFC Consulting Ltd. website and said e-procurement portal only.

2. The bidder would bear all costs associated with the preparation, submission of bid, participation in bidding process including cost of registration with the said e-procurement portal, if any. PFCCL in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.

3. Bidders are advised to start the registration process little bit early on the e-procurement portal so as to avoid any delay in bid submission. Bidders may visit the said e-procurement portal for further details.

**BID INVITATION LETTER**

**Ref: 01/25-26/ITP-110/TC/RFP** **08/08/2025**

…….

…….

…….

**Subject: Request for an offer for Consultancy Services Package for Technical Survey and Preparation of Report for "Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)" using Modern Survey Techniques.**

Dear Sir,

Ministry of Power (MoP) vide NCT dated 14.07.2025 appointed PFC Consulting Limited (PFCCL) as the Bid Process Coordinator (BPC) for selection of bidder as Transmission Service Provider (TSP) to establish Inter-State transmission system **"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "** through Tariff Based Competitive Bidding (TBCB) process.

PFCCL invites bids from the Survey Agencies who are Technically Empaneled under Category "A" with PFCCL for survey and preparation of report for "**Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)** ". The Scope of Work is indicated in Volume-III of this document. The eligibility criteria, submission of bid, deliverables, selection procedure and criteria, terms of payment, terms and conditions etc. are given below:

**1.0 ELIGIBILITY CRITERIA**

The Consulting Organization (Bidder) should mandatorily possess Technical Empanelment Letter indicating the firm been empaneled under the Category "A" issued by PFCCL.

**2.0 CONTENTS OF BID DOCUMENTS**

i) Bid Proposal Sheets (Volume- I)
ii) Conditions of Contract (Volume-II)
iii) Technical Specification including Scope of Work for Survey and Preparation of Report (Volume-III)

**3.0 PERIOD OF ENGAGEMENT**

The timeline for completion of assignment with respect to deliverables would be six (6) weeks from the date of Letter of Award (LoA), however, the period of engagement would be till the transfer of Packages to Transmission Service Provider (TSP) by PFCCL.

The Consultant is expected to be associated with the project for a period till transfer of Packages to Transmission Service Provider (TSP) by PFCCL and the Consultant should be able to extend its services as and when required till the period of engagement.

**4.0 BASIS OF PRICE OFFER**

The price offer would be for the assignment as per **Schedule-3** of **Bid Proposal Sheet (Volume-I)** and would remain firm throughout the period of contract. Quoted lump sum price will be inclusive of taxes and duties including the applicable Goods and Services Tax, all travel, and stay, out of pocket expenses, cost of producing documents etc. and PFCCL will not pay and/or reimburse anything over and above the price quoted. TDS would be deducted as per provision of Income Tax Act and TDS certificate shall be issued to the Consultant by Employer.

All related travel expenses incurred by the Consultant's personnel for journeys to site or Employer's Office or anywhere in connection with the consultancy services/study under Scope will be borne by the Consultant and the Employer will not take any responsibility whatsoever on this account.

**5.0 SUBMISSION OF BID**

**5.1** Bid shall consist of two parts "Technical Proposal" and "Financial Proposal" and should be duly submitted online at e-Procurement Portal https://gem.gov.in/ online from on or before 19:00 hrs. (IST) on 15/08/2025. The Bid would consist of

i. Technical Proposal:

a) Covering letter

b) Authorization Letter

c) Details of the Team Member (1 Team Leader & at least 1 Team Member) (Name, Contact No., Job Assigned etc.) and their CVs as per Volume-I/SCHEDULE-2A

d) Technical Empanelment Letter issued by PFCCL indicating that the firm has been empanelled under the Category "A".

e) The Bidder shall submit the Earnest Money Deposit (EMD) of Rs. **20,000**/- (5% of ETV) or MSEs Certificate (ref. OM No. F.20/2/2014-PPD(Pt.) dtd. 25.07.2017 issued by Procurement Division, MoF)

ii. Financial Proposal: to be submitted only in the relevant cell of GeM portal

**5.2** The scanned copy of the documents of Technical Proposal to be uploaded in the Gem Portal and the Financial proposal to be submitted online at e-Procurement Portal https://gem.gov.in/ online from on or before 19:00 hrs. (IST) on 15/08/2025**.**

**Note:**

**5.3 A bid may be considered as in-complete/non-responsive in case of non-submission /wrong submission /alteration of any of the following documents:**

i) Covering Letter on the letter head of the organization/firm as per the Format of **Schedule -1** of **Volume-I** (Bid Proposal Sheets) duly signed by the authorized signatory.

ii) Authorization Letter in favor of the Authorized Signatory as per format provided at **Schedule-2 of Volume-I** (Bid Proposal Sheets).

iii) Details of the Team Member (1 Team Leader & at least 1 Team Member) (Name, Contact No., Job Assigned etc.) and their CVs as per Volume-I/SCHEDULE-2A.

iv) Technical Empanelment Letter issued by PFCCL indicating that the firm has been empanelled under the Category "A".

v) Earnest Money Deposit (EMD) of Rs. **20,000**/- (5% of ETV) or MSEs Certificate (ref. OM No. F.20/2/2014-PPD(Pt.) dtd. 25.07.2017 issued by Procurement Division, MoF)

EMD Amount will be paid through NEFT/RTGS in PFCCL's Bank Account. Bank Accounts details of PFCCL are as under:

Name of Organization: PFC Consulting Limited
Name of Bank & Branch: ICICI Bank, Connaught Place, New Delhi, 110001
Bank Account Name: PFC Consulting Limited
Account No. : 000705036117
IFSC: ICIC0000007

*PFCCL* reserves the right to seek clarifications from Bidder in case of any deficiency is observed in the Technical Proposal.

**5.4** The Financial Proposal should contain the lump sum price offered for Package and have to be submitted **only** online at e-Procurement Portal https://gem.gov.in/ and not anywhere apart from e-Procurement Portal https://gem.gov.in/. .

**5.5** Bidders are instructed to communicate with PFCCL only in writing/email to the official contact.

**6.0 BID OPENING AND EVALUATION OF PROPOSALS**

**6.1 Opening of Technical Proposal**

The **"Technical Proposal"** will be opened online on **15/08/2025 at 19:30 hrs. (IST).**

**6.2** Completeness of bid with respect to the bidding document.

i) The Technical Proposal should contain all documents mentioned at Para 5.2 above, **duly filled and signed by Authorized Signatory**.

ii) There should be no deviations from any or all the contents of the bidding documents or conditional or alternate bids.

**6.3 Qualifying criteria for opening of Financial Proposal of the firm**

i) The Consulting Organization (Bidder) should be empaneled under the category "A"with PFCCL for Technical Empanelment of Survey Agencies for ISTS/ ITP Works.

ii) The Bid has been found responsive as per Clause 5.3.

**6.4 Opening of Financial Proposal**

The "Financial Proposal" would be opened online in GeM portal. The date and time of opening of the "Financial Proposal" of the technically qualified bidders will be intimated to all bidders.

**6.5 Financial Proposal Evaluation**

The assignment would be awarded to the technically qualified bidder who has quoted lowest lump sum price quoted as per Clause 4 above, in Indian Rupees, without condition(s) or alternate price bid. Conditional Financial Proposals will be rejected.

***In case of more than one bidder quoting L1 price, the Assignment will be offered to the bidder quoting L1 price who has submitted its bid first on the GeM portal.***

**7.0 VALIDITY OF BID**

Bidders would keep their Bids/ Quotations valid up to **120 (One Hundred and Twenty) days** from the date of submission of bid. Bidders may be required to further extend the validity of Bid as per the requirement of PFCCL.

**8.0 CONTRACT PERFORMANCE GUARANTEE (CPG)**

In the event of an award, the successful bidder, within **ten (10) days** of receipt of Letter of Award (LoA) from Employer, will be required to arrange submission of CPG in the form of Bank Guarantee (BG) of **Five (05)** Percent of the contract value. The CPG/ BG should be as per Performa (will be given to the successful bidder) and should be kept valid up to **twelve (12) months** from the date of issue of Letter of Award (LoA).

**9.0 CONTRACT AGREEMENT**

**9.1** In the event of award, the selected bidder ("**Consultant"**) will be required to enter in to a Contract Agreement with the PFCCL **within 10 (ten) working days from the date of the Letter of Award (LoA) or within such extended time, as may be granted by the PFCCL** as per the pro-forma of the Contract Agreement as per **Schedule -4**.

**9.2** Formal Contract Agreement will be executed on Non-judicial stamp paper of Rs. 100/- (Rs. One Hundred only) as per the format provided at **Schedule -4**. Two sets of Non-Judicial Stamp papers of Rs.100/- each and water mark papers to be purchased by the Consultant from Delhi State.

**9.3** The Contract Agreement will be signed in two originals and the Consultant shall be provided with one signed original Contract Agreement.

**9.4** The date of execution of the Contract Agreement in no case would alter the date of start or completion period of the work.

**9.5** Till the time a 'Contract Agreement' is executed, the Letter of Award shall be read in conjunction with the Bidding Documents and would constitute a binding contract.

**9.6** The executed Contract Agreement may only be amended or supplemented by a written agreement between the parties.

**10.0 TERMS OF PAYMENT:**

**10.1** **Forty (40%) Percent** of the contract value would be paid after submission by the Contractor and acceptance by the Employer of :

i. Alternative Route Alignment and finalization of Route Alignment for Transmission Line and Estimation of land requirement and identification of alternative sites for substation as per **Annexure-A & B of Volume –III (Technical Specification)** and

ii. Draft Project Report

**10.2** **Forty (40%) Percent** of contract value would be paid after submission of the Final Project Report by the Contractor & acceptance of the same by the Employer.

**10.3** **Twenty (20%) Percent** of contract value would be paid on the transfer of Packages to Transmission Service Provider (TSP) by PFCCL.

**11.0 DELIVERABLES:**

The Consultant is required to submit the following deliverables in line with the time schedule indicated against each deliverables:

**11.1** The Consultant would submit weekly progress report for all the works/ studies/ survey as per the format mutually agreed upon.

**11.2** The Consultant would submit alternative Route Alignment for Transmission Line and finalization of Route Alignment for Transmission Line and Estimation of land requirement and identification of alternative sites for substation as per **Annexure-A & B of Volume –III (Technical Specification)** in consultation with the Employer within **one (01) week from the date of LoA**.

**11.3** The Consultant would submit walk over survey of the optimized route along with three (03) copies of Draft Reports including the details of the substations and incorporating details as per **Annexure-A & B of Volume –III (Technical Specification)** within **two (02) weeks from the date of LoA.**

**11.4** The Consultant would submit five (05) copies of final report, both in soft and hard copies, in English language within **four (4) weeks from the date of LoA.**

**Note:**

i) Final report, if required, to be submitted in regional language for clearances or any other purposes, would also be the responsibility of the consultant.

ii) All raw data for all the studies/ reports/ surveys would also be submitted.

iii) All reports would be submitted in A4 size sheets and all drawings on A0 size sheets. All drawings would be properly bound and printed on good quality paper.

**11.5** Consultant should provide assistance /deliverables as may be required, for successful completion of the assignment. The Consultant would have to provide assistance /deliverables, as may be desired by PFCCL during the course of the assignment for the

successful completion of the assignment to the satisfaction of PFCCL.

**12.0 OTHER TERMS & CONDITIONS:**

i) The financial proposal by the bidders would be in Indian Rupees as per format enclosed with no escalation at any stage during or after the completion of the assignment for any reason whatsoever.

ii) The Consultant shall submit the details of the Team Members (Name, Contact No., Job Assigned etc.) who will be involved in the Assignment. Before proceeding for the survey, the consultant shall share travel program with PFCCL. The Consultant shall make available the services of the identified personnel as may be required for successful execution of the assignment and or as may be required by PFCCL on specified dates, venues and time in order to meet the obligations of PFCCL.

iii) All claims would be raised by the Consultant as per the terms of payment and would be accepted for payment based on satisfactory progress and quality of the work at the sole discretion of the competent authority.

iv) In case there is a delay by the Consultant in accomplishing the deliverables which in the opinion of PFCCL is attributable to the Consultant, PFCCL reserves the right to get such specific work(s) done through any other Agency(ies) at the risk and cost of the Consultant for timely completion of the deliverables.

v) In case the performance of the any team member(s) is not satisfactory, the Consultant will be asked to change/replace the team member(s) within three (03) days of receipt of such request from PFCCL with a member acceptable to PFCCL.

vi) PFCCL with the approval of CEO, can cancel the contract at any stage of the work, in case the performance of the consultant is not satisfactory, any information given at the time of submission of the bid is found to be incorrect.

vii) Given the nature of the work being entrusted, the successful bidder firm would have to give an undertaking to the effect that the contents/ essence of any reference/ documents given would not be disclosed to any third person without the express approval of PFCCL, failing which the engagement of the firm would be terminated.

viii) If due to any reason or decision of the Govt. /Client, the Assignment is dropped and the Consultant is directed to discontinue work, the “Drop Dead Fee” would be limited to the payments received by the Consultant and the claims already raised and accepted by Employer, as per the payment terms relating to the Assignment, till the point of calling off the Assignment or as mutually agreed.

ix) Conflict of Interest: Consulting organization or their Partners / any other Employee or Associate would not be hired for any work whose interests are that in conflict with their prior or current obligations to the other organizations, or that may place them in a position of being unable to carry out the work assigned to them at any point of time during the currency of engagement by PFCCL or above all enable them to pose a threat to PFCCL’s consulting business in future. Without limitation on the generality of the foregoing, Consulting organizations would not be hired, under the circumstances set forth below:

a) Consulting organizations that have business or family relationship with member(s) of PFC's and/or PFCCL's employees or persons positioned in or on the Board of these two organizations by whatever process would not be engaged. A declaration to this effect would be given by the organization when being engaged, and if found incorrect, the Consulting organizations would be debarred from any further engagement by PFCCL ever.

x) The Consultant would keep PFCCL, both during and after the term of this Contract, fully and effectively indemnified against all losses, damage, injuries, deaths, expenses, actions, proceedings, demands, costs and claims, including, but not limited to, legal fees and expenses, suffered by PFCCL or any Third Party, where such loss, damage, injury or death is the result of a wrongful action, negligence or breach of contract by the Consultant, or the Consultant's personnel, including the use or violation of any copyright work or literary property or patented invention, article or appliance

xi) Offers received in the designated office after the due time and date mentioned above would not be considered.

xii) PFCCL reserve the right to accept or reject any or all Proposals/Offers or annul the bid Process or modify/ change the content of the bid document without assigning any reason.

xiii) PFCCL would not entertain any claim of any nature, whatsoever, including without limitations, any claim of expenses in relation to the preparation, submission or any other activity relating to bidding or any other expense till award of contract.

The complete bid document can be downloaded from our website: www.pfcclindia.com. The Bidder has to submit the BID at e-Procurement Portal https://gem.gov.in/ on or before 19:00 hrs. (IST) on 15/08/2025.

Yours sincerely,

**For and on behalf of PFC Consulting Limited**
**Deputy General Manager**

Encl: As above.

# PFC CONSULTING LIMITED

**(A wholly owned subsidiary of Power Finance Corporation Ltd. -
A Government of India Undertaking)**

## VOLUME – I

## BID PROPOSAL SHEETS

**Survey & Preparation of Report for *"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "*- using Modern Survey Techniques.**

**COVERING LETTER**

(On the Letter head of the organization/Firm duly signed each page by Authorized signatory)

**Bidder`s Proposal Ref. No._____and Date_____**

Name of Authorized Person : …….
Designation: …….
Telephone No.: …….
Email : …….

To
**Deputy General**
**Manager, PFC**
**Consulting Ltd.**
9th Floor, A-Wing, Statesman House,
Connaught Place, New Delhi 110001.

Dear Sir,

1.0 We hereby propose to provide the Consultancy Services for Survey and Preparation of Reportfor **"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) ".**

2.0 We have understood the instruction and the terms & conditions mentioned in the Bidding Documents and have thoroughly examined the specifications/ scope of work laid down in the Bidding Documents and are fully aware of nature of consultancy services required.

3.0 We herewith submit Technical and Financial proposals for selection of our organization as consultant on lump sum basis for assisting PFCCL on Consultancy Services for **"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) ".**

4.0 We are submitting our bid online consisting of:

i) Technical proposal:
   a. Covering letter,
   b. Authorization Letter
   c. Details of the Team Member (1 Team Leader & at least 1 Team Member) (Name, Contact No., Job Assigned etc.) and their CVs as per Volume-I/SCHEDULE-2A.
   d. Technical Empanelment Letter issued by PFCCL indicating that the firm has been empanelled under the category "A".
   e. Earnest Money Deposit (EMD) of Rs. **20,000**/- (5% of ETV) or MSEs Certificate (ref. OM No. F.20/2/2014-PPD(Pt.) dtd. 25.07.2017 issued by Procurement Division, MoF)

ii) **Financial Proposal** consisting of Price Offer (as per format provided at Schedule 3 of Bid Proposal Sheets)

5.0_____**[Name and contact information] would be the Team Leader for the assignment**.

6.0 We declare that the above quoted lump sum price is firm and would remain valid for the entire period of the consultancy assignment. We further declare that the above quoted lumpsum price is inclusive of taxes and duties including the applicable Goods and Services Tax, alltravel, and stay, out of pocket expenses, cost of producing documents etc. and PFCCL will notpay and/or reimburse anything over and above the price quoted.

7.0 We hereby undertake that if any Income Tax, Surcharge or any other Corporate Tax is attracted under the law, we agree to pay the same to the concerned authorities.

8.0 We declare that the prices and other terms and conditions of this proposal are valid for a period of 120 days from the last date of submission of bid.

9.0 We declare that the services will be rendered strictly in accordance with the specifications and we do not have any deviation to any of the terms and conditions of the biddingdocuments.

10.0 We confirm our acceptance/compliance to the `Deliverables` and `Terms of payment` clauses as stipulated in the bid documents. We confirm that Contract Performance Guarantee of Five (05) Percent of the total consultancy fee in the form of bank guarantee would be provided by us as per the prescribed format in case of placement of award.

11.0 We hereby declare that only the company, persons or firms interested in this proposal as principal or principals are named herein and that no other company, person or firm other than one mentioned herein have any interest in this proposal or in the contract to be entered into, in case of placement of award..

12.0 We give our unconditional acceptance/compliance to the Bid Documents issued by PFCCL. The proposal is unconditional.

13.0 We confirm that we agree and seek no deviations from the 'Scope of Work', 'Time Schedule', 'Deliverables', 'Terms of payment` and all other terms and conditions as contained in the 'Bid Document'. Further, we agree to execute entire scope of work and deliverables of the bid document.

14.0 We unconditionally agree to the terms and conditions of the Contract Agreement as per the format at Schedule-4 of the Volume-I of Bid Document and undertake to execute the same in case the work is awarded to us.

15.0 We understand that PFCCL will award the contract to the successful consultant whose offer is substantially responsive and to be the lowest evaluated offer.

16.0 We confirm and certify that all the information/ details provided in our bid are true and correct.

17.0 We also declare that by taking this assignment we do not have any conflict of Interest with any of our prior or current obligations to other organizations/clients and also do not have business or family relationship with member(s) of PFC's and/or PFCCL's employees or persons

positioned in or on the Board of these two organization by whatever process and if found incorrect, we may be debarred from any further engagements by PFCCL forever.

18.0 We certify that all the information provided in our bid are true. We understand that any willful mis-statement in the bid may lead to disqualification /cancellation of award / termination of contract. We also understand that in such a case we may be debarred for future assignments with PFCCL for a period of maximum three years from the date of such disqualification.

19.0 Further, we undertake that in the event of our appointment as sub consultant, given the nature of the work being entrusted, the contents/ essence of any reference/ documents given would not be disclosed to any third person without the express approval of PFCCL, failing which the engagement of the organization would be terminated.

20.0 We hereby confirm and declare that we are not blacklisted/ De-registered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 5 years.

**Signature of Authorized Person**
**Name, Designation & Company seal**

Date:
Place:

**Note:** Details not provided as per format would be considered as non-responsive and would not be considered for bid evaluation.

**AUTHORISATION LETTER**

(On the Letter head of the Organization/Firm)

I_____certify that I am_____of the Organization, organized under the laws of_____and that_____who signed the above Proposal is authorized to bind the organization by authority of its governing body.

**Signature:**

**Full Name:**

**Address:**

**(Company Seal)**

## COMPOSITION OF TEAM AND THE TEAM LEADER TO BE DEPLOYED

| S. No. | Name | Experience in survey related works (in Years) | Task Assigned in Team |
|---|---|---|---|
| | **Team Leader** | | |
| 1 | | | |
| | **Other Members** | | |
| 2 | | | |

**Signature of Authorized Person**
**Name, Designation & Company seal**

Date:
Place:

**Note**: Signed Curriculum Vitae of the all Personnel listed above should be enclosed as per the suggested format at Page 2 of 2 of Volume-I/Schedule-2A.

**SUGGESTED FORMAT OF CURRICULUM VITAE FOR EACH TEAM LEADER/MEMBER OF CONSULTANTS TEAM**

Name: _____

Profession/ Present Designation: _____

Total post qualification experience: _____

Years with organization: _____

**Educational Qualification:**

(Under this heading, summarize college/ university and other specialized education of staff member, giving names of colleges, etc. degrees obtained and Year of Passing/obtaining the qualification.)

**Experience:**

(Under this heading, list of positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience in last ten years also give types of activities performed and client references, where appropriate.)

**Language:**

(Indicate proficiency in speaking, reading and writing of each language by 'excellent', 'good' or 'poor').

**Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any willful mis-statement described herein may lead to disqualification of the firm.

**……**
**Signature of the Team Leader/Member**
**Name: …….**
**Designation: ……..**

……
**Signature of Authorized Person**
**Name: …….**
**Designation: …….**
**Company Seal: …….**

**Date:**
**Place:**

## SCHEDULE OF PRICE BID

The Lump sum quoted price for Package **to be submitted online on GeM portal only**. The lump sum price quoted would be inclusive of taxes and duties including the applicable Goods and ServicesTax, all travel, and stay, out of pocket expenses, cost of producing documents etc. and PFCCL will not pay and/or reimburse anything over and above the price quoted.

Consultants **should not quote Price Bid anywhere** apart from e-Procurement Portal https://gem.gov.in/**. If quoted Price Bid is found anywhere** apart from e-Procurement Portal https://gem.gov.in/**, that Bid would be out-rightly rejected.**

**CONTRACT AGREEMENT**

This CONTRACT (hereinafter, together with all Appendices attached hereto and forming an integral part hereof, called the "Contract") is made this ___day of the month of _____2025, between:

**PFC Consulting Limited** (a wholly owned subsidiary of Power Finance Corporation Limited, a Government of India Company) incorporated under the Indian Companies Act 1956, having its registered office at first Floor 'Urjanidhi'1-Barakhamba Lane, Connaught Place New-Delhi-110001 hereinafter referred to as "Employer" (which expression shall unless repugnant to the context or the meaning thereof include its successors and permitted assigns)

AND

_____ Firm/Company incorporated under the Indian Companies Act, 1956, having its registered office at_____hereinafter called the 'Consultant' (which expression shall unless repugnant to the context or the meaning thereof include its successors and permitted assigns)

WHEREAS the Employer is in the process of selection of a firm for **Consultancy Services for Survey & Preparation of Project Report for "*Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)* " using modern survey techniques.** (Hereinafter to be referred as Project)

AND WHEREAS the Employer is intending to hire an experienced and qualified Consultant who has undertaken similar projects and is capable of providing consultancy services in conjunction with other specialist consultants, and personnel for providing "Services" and advice in regard to the "Consultancy Service" for the Project**.**

AND WHEREAS the Consultant, have represented to the Employer that they have the requisite experience, professional skills, adequate manpower and technical resources and personnel, to render the Services required by the Employer in a timely and efficient manner.

AND WHEREAS based on above representations of the Consultant, the Employer has agreed to appoint the Consultant to render services on the terms and conditions hereafter contained:

NOW THEREFORE THIS AGREEMENT WITNESSES THAT, IN CONSIDERATION OF THE PREMISES AND THE MUTUAL COVENANATS HEREIN CONTAINED, IT IS AGREED BETWEEN THE PARTIES AS FOLLOWS:

**1.0 GENERAL PROVISIONS**

**1.1 Definitions**

Unless the context otherwise requires, the following terms whenever used in this Contract, Appendices, Schedules and Exhibits shall have the following meanings:

(a) “Approvals” shall mean all consents, licenses and approval of any local, municipal, State or National Authority necessary to carry out the services for each and every phase of the Project.

(b) "Contract" means this Contract together with all Appendices, Attachments, Exhibits and Schedules and including all modifications made in accordance with the provisions of Clauses 12 hereof between the Employer and the Consultant.

(c) “Consultant” means_____Company/firm and also includes any other consultants or sub-consultants as may be appointed by the Consultant herein with the written approval of the Employer, for providing of the services to the Employer in execution of the Project.

(d) “Confidential Information” means any material, proprietary, non-public information acquired, developed, disclosed or exchanged among the parties pursuant to this Agreement.

(e) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause 3.1 hereof;

(f) “Personnel” means persons hired by the Consultant or by his Sub-consultant as employees, for the purposes of rendering services or any part thereof; Personnel includes:

(i) "Local Personnel" mean such persons who at the time of being so hired have their domicile in India and;

(ii) “Foreign Personnel” mean such persons who at the time of being so hired had their domicile outside India

(g) "Parties" means the Employer or the Consultant, as the case maybe;

(h) “Contract time” means the duration of time of the Contract as referred to Clause 3.

(i) “No claim Certificate” means certificate issued by the Employer after the Contract has expired and the consultant has performed all his Services as per the terms and conditions envisaged in this Contract and all undisputed payments of remuneration and reimbursable expenditures payable by the Employer to the Consultant has been made.

(j) "Project" means “Consultancy Services for Survey & Preparation of Project Report for “***Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)*** ”.

(k) "Services" means the works to be provided/performed by the Consultant and/or, the Sub-Consultants for completion of various tasks as described in Letter of Award hereto;

(l) "Starting Date" means the date referred to in Clause 3.3 hereof;

(m) "Sub Consultant" means any person/entity to whom the Consultant subcontracts for any part of the Services in accordance with the provisions of Clause 5.5 hereinafter; and

(n) "Third Party" means any person or entity other than the Employer, the Consultant or his Sub- consultant.

**2.0 LOCATION FOR PERFORMANCE OF THE SERVICES:**

**(a)** The Consultant shall render/perform services at **Delhi** and at the Project site of ***"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "*.**

(b) The Consultant also undertakes to perform/render services at other location or elsewhere as required for the execution of project or as specified by the Employer from time to time. The Employer shall not bear any extra expenses/cost if, any, incurred by the consultant for providing services at other location.

**3.0 COMMENCEMENT, COMPLETION, AND TERMINATION OF CONTRACT**

**3.1 Commencement of Contract**

This contract would come into force from the date ("effective date") on which the Employer and the Consultant have signed the present contract.

**3.2 Termination of Contract for Failure to Become Effective**

a) If this Contract has not become effective within **15 days** from effective date the Employer has the right to declare the same to be null and void, and in the event of such a declaration the consultant would not have any claim against the Employer.

In case the contract is rendered null and void on account of failure/inaction on the part of the consultant, the consultant would be liable to pay damages to the Employer.

**3.3 Commencement of Services**

The Consultants would begin carrying out the Services immediately viz. from the date of issue of Letter of Award (the "Starting Date"), or on such date as the Parties may agree in writing

**3.4 Expiration of Contract**

Unless terminated earlier pursuant to Clause 10 hereof, this Contract would expire after the consultant has performed all his Services as per the terms and conditions envisaged in this Contract and the Employer has issued a 'No claim Certificate' to the Consultant.

The Employer shall issue the 'No claim certificate' after being satisfied that the Consultant has performed/rendered all the services to the satisfaction of the Employer, as per the contract and all undisputed payments of remuneration and reimbursable expenditures payable by the Employer to the Consultant has been made.

## 4.0 CONTRACT PERFORMANCE GUARANTEE

**4.1** The Consultant within **10 days** from the date of issue of Letter of Award would furnish a Performance Guarantee in the form of Bank Guarantee as per Performa attached as Section-2 of bid document, from any Bank towards performance of the Contract. The guarantee amount would be equal to **Five (05) percent** of the contract price in accordance with the terms and conditions specified in the contract and in the Bid Documents. The guarantee would be valid until after expiry of a period **twelve (12) months** from the scheduled date.

**4.2** The Contract Performance Guarantee is intended to secure the performance of the entire contract and shall not be construed as limiting the damages stipulated in other clauses in the Bid Documents.

**4.3** The Performance Guarantee will be returned to the Contractor without any interest at the end of the Guarantee Period.

## 5.0 OBLIGATIONS OF THE CONSULTANTS

### 5.1 Standard of Performance

The Consultant would perform the Services and carry out his obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used with professional engineering andconsulting standards recognized by professional bodies, and would observe sound management, and technical and engineering practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods in execution of project. The Consultant would always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Employer, and would at all times support and safeguard the Employer's legitimate interests in any dealings with Consultants/Sub- consultants or Third Parties.

### 5.2 Compliance with Rules and Regulations

The Consultant agrees that it would be responsible and liable to comply with and also undertakes to ensure and be responsible for compliance by the Sub consultants, agents of the Consultants and Sub-consultants and Personnel, with all the rules and regulations of various concerned government authorities and departments for the services rendered under this agreement.

### 5.3 Conflict of Interest

Consulting organization or their Partners / any other Employee or Associate would not be hired for any work whose interests are that in conflict with their prior or current obligations to the other organizations, or that may place them in a position of being unable to carry out the work assigned to them at any point of time during the currency of engagement by PFCCL or above all enable them to pose a threat to PFCCL's consulting business in future. Without limitation on the generality of the foregoing, consulting organizations would not be hired, under the circumstances set forth below:

Consulting organizations that have business or family relationship with member(s) of PFC's and/or PFCCL's employees or persons positioned in or on the Board of thesetwo organizations by whatever process would not be engaged. A declaration to thiseffect would be given by the organization when being engaged, and if found incorrect, the Consulting organizations would be debarred from any further engagement by PFCCL ever.

**5.4 Benefit from Commissions, Discounts etc.**

Payment to the Consultant would constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant would not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant would use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly would not receive any such additional benefits.

**5.5 Consultants and Affiliates not to be otherwise interested in Project**

The Consultant agrees that, during the term of this Contract, the Consultant, Sub Consultant, Personnel and/or any entity affiliated with the Consultant or Sub-Consultant would not provide services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project to any third party. In the event of breach of the aforesaid condition the Employer would be entitled to disqualify such Consultant or the Sub Consultant or any of their Personnel from providing services to the Employer and further claim damages for breach.

**5.6 Prohibition of Conflicting Activities**

The Consultant would not engage and would cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

**5.7 Insurance to be taken out by the Consultant**

The Consultant would take out and maintain, and would cause its Sub-Consultants to take out and maintain, at their own cost, insurance against risks etc.

### 5.8 Liability of the Consultants

The Consultant and each of his Members (consultant personnel, sub-consultant, sub-consultant personnel) would be jointly and severally liable to the Employer for the performance of the Services under this Contract and further for any loss suffered by the Employer as a result of a default of the Consultant or his members in such performance, subject to the following limitations:

(a) The Consultant would not be liable for any damage or injury caused by or arising out of the act, neglect, default or omission of any persons other than the Consultants, its Sub- consultants or the Personnel of either of them; and

(b) The Consultant would not be liable for any loss or damage caused by or arising out of circumstances of Force Majeure.

### 5.9 Consultant Action Requiring Employer's Prior Approval

The Consultant would obtain the Employer's prior approval in writing before taking any of the following actions:

(a) appointing personnel to carry out any part of the Services, including the termsand conditions of such appointment;

(b) entering into a subcontract with the Sub consultant for the performance of any part of the Services, it being understood:

(i) That the selection of the Sub-consultant and the terms and conditions of the subcontract would have been approved in writing by the Employer prior to the execution of the subcontract, and

(ii) That the Consultants would remain fully liable for the performance of the Services by the Sub-consultant and its Personnel pursuant to this Contract;

### 5.10 Reporting Obligations

The Consultant would submit to the Employer the reports and documents specified in **Letter of Award** hereto, in the form, in the numbers and within the time periods set forth in the said **Letter of Award**, including any supporting data required by the Employer.

### 5.11 Documents Prepared by the Consultants to Be the Property of the Employer

All plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services would become and remain the property of the Employer, and the Consultant would, not later than upon termination or expiration of this Contract, deliver all such documents to the Employer, together with a detailed inventory thereof.

## 6.0 CONSULTANT'S PERSONNEL

### 6.1 General

The Consultants would employ and provide such qualified and experienced Personnel as are required to carry out the Services.

### 6.2 Description of Personnel

(a) The titles, job descriptions, minimum qualifications and estimated period of engagement in the carrying out of the Services of each of the Consultants' Personnel are described in **Letter of Award**.

(b) If required to comply with the provisions of **Clause 5.4** of this Contract, adjustments with respect to the estimated periods of engagement of Personnel set forth in may be made by the Consultant by written notice to the Employer, provided:

(i) that such adjustments would not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger.

(ii) that the aggregate of such adjustments would not cause payments under this Contract to exceed the ceilings set forth in **Clause 8** of this Contract. Any other such adjustments would only be made with the Employer's written approval.

(c) If additional work is required beyond the scope of the Services specified in **Letter of Award**, the estimated periods of engagement of Personnel set forth in **Letter of Award** may be increased by agreement in writing between the Employer and the Consultants, provided that any such increase would not, except as otherwise agreed, cause payments under this Contract to exceed the ceilings set forth in **Clause 8** of this Contract.

### 6.3 Removals and/or Replacement of Personnel

a) Except as the Employer may otherwise agree, no changes would be made in the Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Personnel, the Consultants would forthwith provide as a replacement a person of equivalent or better qualifications.

b) If the Employer:

i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or

ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants would, at the Employer's written request specifying the grounds therefore, forthwith provide as a replacement a person

with qualifications and experience acceptable to the Employer.

c) The new personnel provided as a replacement would be governed by the same the terms and conditions of employment as the replaced personnel.

d) The Consultants would bear all additional travel and other costs arising out of or incidental to any removal and/or replacement.

**7.0 OBLIGATIONS OF THE Employer**

In consideration of the Services performed by the Consultants under this Contract, the Employer shall make to the Consultants such payments and in such manner as is provided by Clause 8 of this Contract.

**8.0 PAYMENTS TO THE CONSULTANTS**

**8.1** The Lump-sum cost of services payable in Indian Rupees is set forth in Terms of Payment of Bid Document.

**8.2 Mode of Payment**

Payments will be made by the Employer to the consultant in accordance with the terms of payment as per Letter of Award. Any deviation in the payment terms is not permitted.

**8.3** The Consultant would submit the bills in **duplicate** to the Employer on printed bill forms indicating the work done by him during the period for which payment is sought.

**8.4** The Employer shall cause the payment of the Consultant as per the above given schedule of payment within **sixty (60) days** of the receipt of the bills raised along with supporting documents. However, it is agreed between the parties that the Employer may restrict or withhold the payment if the performance or progress of the services rendered by the Consultant or his members (sub consultants) is not satisfactory and not in accordance with the work program/schedule.

**8.5** The final payment under this Clause would be made only after satisfactory completion of the activities mentioned in the **Terms of Reference (as per Letter of Award)** and after the issuance of No Claim Certificate.

**8.6** All payments under this Contract would be made to the account of the Consultants with: Account No._____Bank Name_____

**9.0 SUSPENSION**

The Employer may, by written notice of suspension to the Consultants, suspend all payments to the Consultant and invoke Performance Bank Guarantee hereunder:

a) if the Consultant fails to perform any of its obligations under this Contract, including carrying out of the Services, provided, that such notice of suspension (i) would specify the nature of the failure, and (ii) would request the Consultants to remedy such failure within a period not exceeding **thirty (30) days** after receipt by the Consultant of such notice of suspension

**or**

b) if at any stage it is found that the Consultant has provided any wrong information/ false information/ mis-represented the fact.

## 10.0 TERMINATION

### 10.1 By the Employer

(a) The Employer may terminate this contract, by issuing a written notice not less than **thirty (30) days**, from the date of occurrence of any of the events as specified in sub clause (a) to (e) of this Clause.

(b) The Employer may terminate this contract, by issuing a written notice not less than **sixty (60) days**, from the date of occurrence of the event as specified in sub clause (f) of this Clause.

(c) if the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to Clause 9 hereinabove, within thirty (30) days of receipt of such notice of suspension or within such further period as the Employer may have subsequently approved in writing;

(d) if the Consultant fail to comply with any final decision reached as a result of arbitration proceedings pursuant to **Clause 19** hereof;

(e) if the Consultant submit to the Employer a statement which has a material effect on the rights, obligations or interests of the Employer and which the Consultants know to be false;

(f) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than **sixty (60) days**; or

(g) if Consultant become Bankrupt and the company has been wound up through liquidation proceedings.

(h) if the Employer, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

**10.2 Cessation of Rights and Obligations**

Upon termination of this Contract pursuant to Clauses 10 hereof, or upon expiration of this Contract pursuant to Clause 3 hereof, all rights and obligations of the Parties hereunder shall cease, except

(a) such rights and obligations as may have accrued on the date of termination or expiration,

(b) the obligation of confidentiality set forth in Clause 16 hereof,

(c) any right which a Party may have under the Applicable Law.

**10.3 Cessation of Services**

Upon termination of this Contract by notice to pursuant to Clauses 10 hereof, the Consultant would, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and would make every reasonable effort to keep expenditures for this purpose to a minimum.

**10.4 Payment upon Termination**

Upon termination of this Contract pursuant to **Clause-10** hereof, the Employer shall make the following payments to the Consultant:

(a) remuneration pursuant to **Clause 8** hereof for Services satisfactorily performed prior to the effective date of termination;

(b) reimbursable expenditures pursuant to Clause 8 hereof for expenditures actually incurred prior to the effective date of termination; and

(c) except in the case of termination pursuant to paragraphs (a) to (b) of **Clause 10.1** hereof, reimbursement of cost duly supported by the documentary evidence incident to the prompt and orderly termination of the Contract.

(d) If due to any reason or decision of the Client/ Govt./ the Regulator, the Assignment is dropped and the Consultant is directed to discontinue work, the “Drop Dead Fee” would be limited to the payments received by the Consultant and the claims already raised, as per the payment terms relating to the Assignment, till the point of calling off the Assignment or as mutually agreed.

**11.0 FORCE MAJEURE**

**11.1 Definition**

(a) For the purposes of this Contract, "Force Majeure" means an event or circumstance or combination of events and circumstances, the occurrence of which is beyond the

reasonable control of either party and which materially affects the performance by either Party of its obligations under this agreement, provided such material and adverse effect could not have been prevented, overcome or remedied in whole or in part by the affected party and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

(b) It is however agreed that "Force Majeure" shall not mean or include:

(1) any event caused by the negligence or intentional action of a Party or such Party's Sub-consultants or agents or employees, nor

(2) any event which a diligent Party could reasonably have been expected to take into account at the time of the execution of this Agreement , and avoid or overcome in the carrying out of its obligations hereunder.

(c) The Consultant would not be paid /reimbursed any further price or cost or any additional cost in re-activating the services after the end of Force Majeure event.

**11.2 No Breach of Contract**

Neither party shall be responsible or be liable for, or deemed to be in breach hereof because of any failure or delay in complying with its obligations under or pursuant to this Agreement due to one or more events of Force Majeure or its effects or any combination thereof, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract. However it is agreed that in no event shall Force Majeure shall exclude any Party's obligation to pay monies under this Agreement.

**11.3 Measures to be taken**

(a) A Party affected by an event of Force Majeure or any combination of events shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.

(b) A Party affected by an event or any combination of events of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.

(c) The Parties shall take all reasonable measures to minimise the consequences of any event of Force Majeure.

### 11.4 Extension of Time

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

### 11.5 Consultation

Not later than thirty (30) days after the Consultant, as the result of an event of Force Majeure, have become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

## 12.0 AMENDMENT/MODIFICATION

This Agreement may not be altered, modified, revoked or cancelled in any way unless such alteration, modification or cancellation is in writing and duly signed by or on behalf of the parties which shall not be effective until the consent of the parties has been obtained. However, it is agreed between the parties that each Party shall give due consideration to any proposals for modification made by the other Party.

## 13.0 AMICABLE SETTLEMENT

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof. Any dispute between the parties as to matters arising pursuant to this Contract which cannot be settled amicably shall be resolved as per the Indian Arbitration Act, 1996 as amended from time to time.

## 14.0 FAIRNESS AND GOOD FAITH

### 14.1 Good Faith

The Parties hereunder undertake to act in good faith with respect to their performance, obligations and rights under this Agreement and further undertake, during the tenure of this Agreement, to take all reasonable measures, to ensure the achievement/realization of the objectives of this Agreement.

### 14.2 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but on failure to agree on any action

pursuant to this clause shall give rise to a dispute subject to arbitration in accordance with clause 18 hereof.

**15.0 TAXES AND DUTIES/ CHANGE IN LAW**

It is hereby agreed between the parties that the Consultant and its personnel would pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the Employer would deduct the taxes, duties and levy whatsoever as may be lawfully imposed.

**16.0 CONFIDENTIALITY**

The Consultant, their Sub-consultants and the Personnel of either of them would not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or Confidential Information relating to the Project, Services, under this Contract or any information pertaining to the Employer's business or operations without the prior written consent of the Employer.

**17.0 LAW GOVERNING CONTRACT**

This Agreement, its meaning and interpretation, and the relation between the Parties shall be governed by Indian Laws or any statutory modifications thereof, and shall be subject to the exclusive jurisdiction of the Courts of **Delhi** in any matter arising under this Agreement and or in matters pertaining to the conduct of arbitration, enforcement of the award or obtaining of interim relief(s) etc.

**18.0 SETTLEMENTS OF DISPUTES/ARBITRATION**

**18.1** The parties shall endeavour to resolve amicably, in the first instance, all disputes, controversies or differences which may arise between the Parties, out of or in relation to or in connection with this Agreement, or for breach thereof.

**18.2** In the event, the parties are unable to resolve such dispute/difference amicably within **ninety (90)** days after the same has arisen then the dispute shall be referred to arbitration in accordance with the Rules of Arbitration of the Indian Council of Arbitration and such arbitration shall be conducted in accordance with the rules of ICA. The place of arbitration shall be New Delhi or any other place mutually agreeable by the parties and the language of arbitration shall be English

The Arbitration shall be conducted by panel of 3 Arbitrators, one to be appointed by each party and third Arbitrator to be appointed by two Arbitrators as the Chairman of the Tribunal.

The Parties agree that the arbitrator's decision shall be final and conclusive. The costs of arbitration (including without limitation, those incurred in the appointment of the arbitrators) shall be borne equally by the Parties hereto; however each Party shall pay its respective legal charges. The Award shall be final and binding and non-appeal

able. Judgment on the award may be entered and enforced in any court of competent jurisdiction. By execution and delivery of this Agreement, each Party agrees and consents to the jurisdiction of the aforesaid arbitration panel and solely for the purpose of enforcement of an arbitral award, as referred to hereinabove, in any court of competent jurisdiction for itself and in respect of its property and waives in respect of both itself and its property, any defense it may have to or based on sovereign immunity, jurisdiction, improper venue or inconvenient forum.

## 19.0 GENERAL PROVISIONS

### 19.1 Language

This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

### 19.2 Headings

The headings shall not limit, alter or affect the meaning of this Contract.

### 19.3 Notices

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail to such Party at the following address:

1. For the Employer: **PFC Consulting Limited** (A subsidiary of Power Finance Corp. Ltd.)**,** 9th Floor, A-Wing, Statesman House, Connaught Place, New Delhi - 110001

   Attention: Mr._____
   **Email**:_____

2. For Consultants:

   Attention:
   **Email**:_____

**19.4** Notice will be deemed to be effective as follows:

(a) in the case of personal delivery or registered mail, on delivery;
(b) in the case of facsimiles, forty eight (48) hours following confirmed transmission.

**19.5** A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to this Clause.

**19.6 Authority of Consultant in Charge**

The Consultant hereby authorize: Mr./ Ms._____to act on their behalf in exercising all the Consultants' rights and obligations towards the Employer under this Contract, including without limitation the receiving of instructions and payments from the Employer.

**19.7 Authorised Representatives**

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract, may be taken or executed:

(a) on behalf of the Employer by_____or his designated representative;

(b) on behalf of the Consultant by_____or his designated representative;

**19.8 WAIVER OF RIGHT**

The failure of either party to enforce at any time or for any period of time, the provisions hereof shall not be construed to be waiver of any provision or of any right and shall not preclude such party from subsequently enforcing such provisions or right.

**19.9 SEVEREABILITY CLAUSE**

If any provision of this Agreement shall be determined to be void or unenforceable, such provision shall be amended or deleted in so far as is reasonably consistent with the provisions of this Agreement and to the extent necessary to conform to applicable law and the remaining provision of this Agreement shall remain valid and enforceable in accordance with their terms.

**19.10** The Consultant shall post two field engineers at the project site for successful completion of the assignment.

**19.11** This Agreement may be executed in any number of counterparts which togethershall constitute a single agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day…..Month…….. and year…..... first above written.

**FOR AND ON BEHALF OF [EMPLOYER]**

By: Authorized Representative

**FOR AND ON BEHALF OF [CONSULTANTS]**

By: Authorized Representative

# PFC CONSULTING LIMITED

**(A wholly owned subsidiary of Power Finance Corporation Ltd. -
A Government of India Undertaking)**

## VOLUME – II

## CONDITIONS OF CONTRACT

**Survey & Preparation of Report for *"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "*- using Modern Survey Techniques.**

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## 1.0. DEFINITION OF TERMS

1.1 Unless defined otherwise, the following terms used in this document shall have the meanings.

1.2 "Employer" or "PFCCL" or Client" shall mean PFC Consulting Limited, New Delhi, India (a wholly owned subsidiary of Power Finance Corporation Ltd.) and shall include their legal representatives, successors and permitted assigns.

1.3 "Project In-charge" shall mean the officer appointed in writing by the Employer to act as "Coordinator" from time to time on behalf of Employer in all matters pertaining to this Contract.

1.4 "Specification" shall mean the Technical Specifications and the Conditions of Contract together with Bid Proposal Sheet forming a part of the bid documents and contract and such other schedules and drawings as may be mutually agreed upon.

1.5 "Notice of Award of Contract" / Letter of Award" shall mean the official intimation from the Employer notifying the successful bidder that its proposal has been accepted and that the bidder is required to sign the Contract Agreement.

1.6 "Date of Contract" shall mean the date on which both the parties have signed the Contract Agreement or any other date mentioned in the Contract/Letter of Award, as the effective date of Contract, whichever is earlier.

1.7 A "week" shall mean a continuous period of seven (07) days.

1.8 "Indian Rupees" or "Rs." shall mean the mean the currency of the Government of India.

1.9 The "Government" shall mean the "Government of India" or an authorized representative/agency/department of the "Government of India".

1.10 The words imparting singular shall also include the plural and vice-versa where the context so requires.

1.11 "Final Report" or "Report" will mean the final report or document prepared by the successful Bidder as per Employer's Specification.

1.12 "Starting Date" shall mean the date from which the periods specified for various activities are measured and asset forth in the completion schedules. The starting date for each schedule, unless otherwise agreed, shall be as indicated in the respective schedule.

1.13 "Month" shall mean calendar month.

1.14 "Day or "Days" unless herein otherwise expressly defined shall mean calendar day or day of 24 hours each. Working days in a month shall be as defined by Consultant in its offer.

1.15 The title or heading shall not alter or affect the intent or scope of the clause or articles of the Documents

1.16 The Date of Completion of Contract, unless otherwise terminated under the provisions of any other relevant clause of the document, Contract shall be deemed to have been completed after issuance of the certification from Project In-charge that there is no demand outstanding against the Consultant and all liabilities under the contract have been satisfactorily fulfilled by the Consultant.

1.17 The "Final Acceptance of Work" provided by the Consultant under the Scope will be given by Employer as hereinafter defined, six (06) months after successful completion of the Consultancy assignment and submission of all documents, reports etc. to the Employer and acceptance of the reports by the concerned statutory Authorities, Government of India and upon certification by the Project In-charge.

1.18 Words imparting "Person" shall include firms, companies, corporations and association or bodies of individuals, whether incorporated or not.

1.19 "Consultant" or "Technical Specialist" or "Contractor" shall mean the bidder whose bid has been accepted by the Employer for the award of the work and shall include his legal representatives, successors and permitted assigns.

1.20 "Consultancy Assignment" or "Work" or "Study" or "Assessment" or "Services" shall mean the complete study as prescribed in the Specification / Terms of Reference.

1.21 "Contract" shall mean the Contract Agreement entered into between the Employer and the Consultant, together with the Contract documents referred to therein; they shall constitute the Contract and the term "Contract" shall in all such documents be construed accordingly.

**2.0 VALIDITY**

The proposal shall be on firm price basis and valid for acceptance for at least 120 days from the date of submission of bid.

**3.0 CURRENCY OF BID**

All prices quoted in the Schedules of the Bid Proposal Sheets should be in Indian Rupees and all payments shall be made in Indian Rupees.

**4.0 THE BID DOCUMENTS**

**4.1** This document is meant for exclusive purpose of submitting the offer by the bidder against the specification and shall not be transferred, reproduced or otherwise used for purposes other than for which it is specifically issued.

**4.2** PFCCL does not bind themselves to accept the lowest or any offer or to give reasons for their decision. PFCCL reserves the right to reject any or all offers without assigning any reason.

## 5.0 CONTRACT PERFORMANCE GUARANTEE

The successful bidder, within **ten (10) days** of from the date of Letter of Award, will be required to arrange submission of CPG in the form of a Bank Guarantee (BG) or equivalent mode like Demand Draft to **Five (05) Percent** of the contract consideration. The CPG/BG should be as per Performa provided by the Employer and should be kept valid up to **Twelve (12) months from the date of Letter of Award** which would be extended till completion of the assignment, whichever is later.

The Contract Performance Guarantee is intended to secure the performance of the entire contract and shall not be construed as limiting the damages stipulated in other clauses in the Bid Documents.

The Performance Guarantee will be returned to the Contractor without any interest at the end of the Guarantee Period.

## 6.0 UNDERSTANDING AND CLARIFICATIONS ON DOCUMENTS AND SPECIFICATIONS

The bidder is required to carefully examine the specifications and documents and fully inform himself as to all the conditions and matters which may in any way affect the works or the cost thereof. If any bidder finds discrepancies or omissions in the specifications and documents or is in doubt as to the true meaning of any part, he shall seek clarification from Employer at once but in no case later than **Three (03) days** prior to the deadline for submission of bids prescribed by the Employer. After receipt of such interpretations and clarifications, the bidder may submit his offer but within the time and date as specified. All such interpretations and clarifications shall form an integral part of the specifications and documents and accompany the consultant's proposal.

Verbal clarifications and information given by the Employer or its employee (s) or its representatives(s) shall not in way be binding on the Employer.

## 7.0 DISCREPANCIES AND ADJUSTMENT OF ERRORS

**7.1** The Bid documents are mutually explanatory of one another. If there are varying or conflicting provisions made in any one of the bid documents, Employer shall be deciding authority with regard to the intention of the document.

**7.2** Any errors in description, quantity or rate in Schedules or any omission there from shall not vitiate the Contract or release the Consultant from the execution of the whole or any part of the works comprised there in according to drawings and specifications or from any of his obligations under the contract.

**7.3** If on checking any difference is found between the rates given by the consultant in words and figures or in the total amount worked out by him in the Schedules in the proposal, the same shall be rectified in accordance with the following rules:

i) In the event of discrepancy between description in words and figures quoted by bidder, the description in words shall prevail.

ii) In the event of an error occurring as a result of wrong extension of the unit rate and quantity, the unit rate shall be regarded, as firm and extension shall be amended on the basis of the rate.

iii) All errors in totaling in the amount column and in carrying forward totals shall be corrected.

**7.4** The bidder should ensure that the prices furnished in various price schedules are consistent with each other. In case of any inconsistency in the prices furnished in the specified price schedules (to be identified in Bid Proposal sheets (BPS) for this purpose), the Employer shall be entitled to consider the highest price for the purpose of evaluation and to award the contract at the lowest of the price in these schedules.

**7.5** Prior to detailed evaluation, the Employer will determine whether each bid is for acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviation, objection, conditionality or reservation is one

i) that affects in any substantial way the scope, quality or performance of the contract;

ii) that limits in any substantial way, inconsistent with the biding documents, the Employer's rights or the successful bidder's obligations under the contract; or

iii) whose rectification would unfairly affect the competitive position of other bidders who are presenting substantially responsive bids.

The Employer's decision in respect of the determination of the responsiveness of a bid will be final and binding on all the bidders.

**7.6** A bid determined as not substantially responsive will be rejected by the Employer and may not subsequently be made responsive by the bidder correction of the non-conformity.

**7.7** The Employer may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

**8.0 SIGNATURE OF BIDS/OFFERS**

**8.1** The offer must contain the name, residence and place of business of the person or persons making the offer and must be duly signed and stamped on each page by the bidder with his usual signature.

**8.2** Offer by a partnership firm must be furnished with full names of all partners and be signed with the partnership name, followed by the signature(s) and designations(s) of the authorized partner(s) or other authorized representative(s).

**8.3** Offers by Corporation/ Company must be signed with the legal name of the Corporation/Company by the President, Managing Director or by the Secretary or other person or persons authorized to furnish offer on behalf of such Corporation, Company in the matter.

**8.4** An offer by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary` or other designation without disclosing his principal will be rejected.

**8.5** The Bidder's name stated on the proposal shall be the exact legal name of the firm.

**8.6** Erasures or other changes in the offer shall be over the initials of the person signing the bid.

**8.7** Offers not conforming to the above requirements of signing may be disqualified.

**9.0 PROGRESSIVE PAYMENT**

All payments against the services shall be paid against production of invoice in quadruplicate by the Consultant. The payment of such fees shall be released as per clause No. 13.0 (Terms of Payment) of the Bid Invitation, on stage-wise completion of the services including submission of the Deliverables and subject to acceptance, approval and certification by the Project In-charge.

**9.1 PROCEDURE OF PAYMENT**

All the invoices of payment shall be supported by necessary documents and submitted in triplicate for the certification of Project In-charge which will require a maximum time of Seven (07) days before the same are submitted for processing the payment within Thirty (30) days of certification of the Project In-charge of the amount payable for the services. In the event, there is any query in respect of any item of such invoice requiring clarification, the Project In-charge shall notify the same within Fifteen (15) days of receipt of such invoice by the Employer that such a query has arisen and both the parties shall endeavor to reach an agreement within a period of Thirty (30) days thereafter. If no mutual agreement can be reached within a period of Forty Five (45) days after receipt of the invoices by the Project In-charge, the Employer shall make payment against the balance of invoice (original amount less the amount in question) to the Consultant within Thirty (30) days thereafter i.e. within Sixty (60) days from the date of receipt of invoice by the Project In-charge. The invoice for the balance amount under question shall be separately submitted for future consideration of the Employer.

**10.0 LIABILITY OF THE CONSULTANT**

Should any defect or inadequacy appear in the study carried out and report submitted by the Consultant prior to the date of final acceptance of the work by the Employer, the

Consultant shall perform at its own initiative and free of any cost to Employer, all such services as shall be necessary to remedy the said defect or inadequacy.

The Consultant shall be further liable for the consequence of errors and omissions arising from the gross negligence on its part or on the part of its employees or associates or experts to the extent of the total contract value of this contract.

**11.0 TAXES, DUTIES AND INSURANCE**

All taxes (including professional tax, etc. as applicable but including Goods and Services Tax), duties, levies, insurance charges, license fees, etc. arising out of the contract shall be payable directly by Consultant and shall be included in the lump sum bid price for the entire scope of work. Employer will not bear any expenditure, whatsoever on this account. As regards income tax, surcharge on income tax and other corporate taxes, the Consultant shall be responsible for such payments to the concerned authorities. However, the Employer is entitled to deduct TDS as per the Government Policies/Tax Rules and Regulations.

The Consultant shall be liable to take/maintain all necessary insurance at its own cost.

**12.0 PATENT**

**12.1** The Consultant shall hold harmless and indemnify the client from and against loss, damage and expenses arising from any claim for infringement of patent, copy right, design and other such rights in existence or to be granted on an application published prior to the completion of this Consultancy with respect to or arising out of the sue or supply of design, or any work in accordance with the designs, drawings or specifications furnished, approved or recommended by the consultant.

**12.2** The Consultant shall promptly notify the Client in writing if the Consultant has or has acquired knowledge of any patent under which a claim or suit for infringement could reasonably be brought because of the use by the Client of any information, recommendation or specifications, services rendered by the Consultant.

**12.3** The Consultant, in such case, shall forthwith at its own cost make and furnish to the client alternative designs, drawings, specifications or recommendations to avoid the same and without putting the Client to additional cost.

**13.0 SETTLEMENT OF DISPUTE**

**13.1** Except as otherwise specifically provided in the Contract all disputes concerning questions of fact arising under the Contract shall be decided by the Project In-charge subject to a written appeal by the Consultant to the Project In-charge, whose decision shall be final to the parties hereto.

**13.2** Any disputes or difference including those considered as such by only one of the parties arising out of or in connection with the Contract shall be to the extent possible settled amicably between the parties.

**13.3** If amicable settlement cannot be reached then all disputed issues shall be settled by arbitration as provided in **ARBITRATION** clause.

**14.0 ARBITRATION**

**14.1** In the event of any question, dispute or difference arising out of or in connection with this consultancy work, whether during the progress of the work or after its completion, abandonment or breach of contract, the same shall be referred for arbitration, for which purpose the Client and the Consultant shall nominate one Arbitrator each. These Arbitrators shall appoint an Umpire not later than one month from the latest date of their respective appointment. The arbitration shall be conducted in accordance with the provisions of Indian Arbitration and Conciliation Act 1996, the rules framed hereunder and any statutory modifications thereof. The costs of reference and arbitration award shall be payable by the parties to the extent and in a manner as may be determined by the Arbitrators or the Umpire.

In case the Consultant is an Indian Public Sector Enterprise/ Govt. Dept. (but not a State Govt. Undertaking or Joint Sector Undertaking which is not a subsidiary of Central Govt. Undertaking), the dispute arising between the Employer and the Consultant shall be referred for resolution to a Permanent Arbitration Machinery (PAM) of the Department of Public Enterprises, Govt. of India.

**14.2** Notwithstanding the existence of any dispute or difference and/or reference for the arbitration, the Consultant shall proceed with and continue without hindrance with the performance of the work under the contract with due diligence and expedition in a professional manner and the payment due to the Consultant shall not be withheld by the Client on account of such difference or arbitration proceedings unless such payment is subject matter of the arbitration.

**14.3** The arbitrators may from time to time with consent of the parties enlarge the time, for making and publishing the award. The venue of arbitration shall be the registered office of the Employer.

**15.0 Termination on Default:**

**15.1** The Employer may without prejudice to any other remedy for breach of contract, by written notice of default sent to the Consultant, terminate the Contract in whole or in part.

i) If the Consultant fails to deliver any or all of the services within time period(s) specified in the contract or any extension thereof granted by the Employer in writing.

ii) If the Consultant fails to perform any other obligation(s) under the contract or

iii) If the Consultant, in either of the above circumstances, does not cure its failure within a period of Thirty (30) days after receipt of the default notice from the Employer.

**15.2** In the event the Employer terminates in whole or in part, pursuant to Para 16.1.0, the Employer may get the services done, upon such terms and in such manner as it deems appropriate, similar to those not rendered, and the Consultant shall be liable to the Employer for any excess costs for such similar services. However, the Consultant shall continue performance of the Contract to the extent not terminated.

**16.0 TERMINATION FOR CONVENIENCE**

**16.1** The Employer, may by written notice sent to the Consultant, terminate the contact, in whole or in part, at any time for its convenience, The notice of termination shall specify that termination is for Employer's convenience, the extent to which performance of work under the contract is terminated and the date upon which such termination become effective.

**16.2** The studies/services that are completed and ready for final reporting within Thirty (30) days after the Consultant's receipt of notice of termination shall be accepted by the Employer at contract terms and prices. For the remaining services, the Employer may elect,

i) To have any portion completed and delivered at the contract terms and prices and/or.

ii) To cancel the remainder and pay to the Consultant an agreed amount for partially completed services.

**17.0 TERMINATION FOR INSOLVENCY**

**17.1** The Employer may at any time terminate the Contract by giving written notice to the Consultant, without compensation to the Consultant, if the Consultant becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Employer.

**17.2** Upon termination of the contract at any time for whatever reason by the Employer compensation shall be payable to the Consultant for all services performed satisfactorily until the date of termination. In addition the Consultant will be paid for such of those items of work, which have been partially completed as per conditions stipulated under relevant clause. The Consultant shall provide available documentary evidences to this effect, acceptable to the Employer.

**17.3** Following issuance by the Employer of a notice of termination and prior to the effective date of such termination, the Consultant shall:

i) Terminate performance of work in progress under the contract on the date and to the extent specified in the notice of termination.

ii) Incur no further costs for services except as necessary to complete performance of any portion of the work under the contract not terminated by the said notice.

iii) Terminate all outstanding orders, service contracts and sub-contracts to the extent that they relate to the performance of work terminated by the notice;

iv) Transfer title and deliver to the Employer in the manner, at the times and to the extent, if any, as directed by the Employer, all completed or partially completed reports, designs, data, maps, plans, photographs, specifications, and commutations, etc. which, if the contract had been continued, would have been required to be furnished to the Employer.

The termination of the contract shall not relieve the Consultant of its duties and liabilities as per the contract for the portion of the services performed prior to the effective date of termination.

**18.0 SIGNING OF AGREEMENT**

The Authorized Signatory of the Consultant shall be required to sign the Contract Agreement within Ten (10) working days of issue of Letter of Award or within such extended time, as may be granted by the Employer as per the pro-forma provided by the Employer. The Agreement will be signed in two originals and the Consultant shall be provided with one signed original Agreement.

**19.0 GOVERNING LAWS**

This Consultancy work shall be governed by the Indian Laws for the time being in force and the Delhi Courts alone shall have the jurisdiction.

**20.0 SUSPENSION OF THE OBLIGATION**

**20.1** The obligations stipulated in this specification can only be suspended in the case of any particular item or work, in the event of Force Majeure as defined in clause 21.0 or as the result of an agreement between the parties.

**20.2** In the event of Force Majeure, neither of the parties may be considered in default of its obligations under the terms of the Specifications.

**21.0 FORCE MAJEURE**

**21.1** Force Majeure is hereby defined as any cause which is beyond the control of the Consultant or Employer as the case may be, which they could not have foreseen and which substantially affect the performance of contract such as:

i) Natural Phenomena including but not limited to floods, draughts, earthquakes and epidemics.

ii) Acts of any government, domestic or foreign, including but not limited to war, declared or undeclared, priorities, embargoes, etc.

Provided either party shall within **Fifteen (15) days** from the occurrence of such a cause notify the other in writing of such cause.

**22.0 HANDLING OF DOCUMENTS**

**22.1** All plans, design calculations, studies, data, maps, drawings and specifications prepared by the Consultant in connection with the services to be provided by the Consultant shall be the property of the Employer. As when required or upon termination of the Contract, the aforesaid documents, prepared specifically for this Study (including originals), shall be handed over to the Employer before final acceptance or thereafter.

**22.2** The Consultant shall take all necessary steps to ensure confidential handling of all matters pertaining to plans, designs, drawings, specifications, methods and any other information developed or acquired by him from the Employer under terms of the Contract or in performance thereof.

**22.3** The Consultant shall not prepare articles or photographs for publication or speeches or presentations about the work and /or site and/or plant, contracts and installation in which has an interest without prior written consent of.

**22.4** The Consultant shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noticed that the Indian Official Secrets Act, 1923 (XIX of 1923) applies to them and shall continue to apply even after the execution of such work(s) under the contract.

**23.0 ABANDONMENT OF WORK**

**23.1** If any work included in the scope of specification to be done by the Consultant is abandoned or suspended for any cause or reasons, which cannot be attributed to the Consultant, payment, shall be made on a pro-rata basis for the work actually done and as decided by the Employer.

**24.0 SUB-CONTRACT**

The Consultant cannot assign or sub-contract any of this work without the prior written consent of the Employer.

**25.0 LIMITATION OF LIABILITES**

**25.1** The Employer shall in no way be responsible for any liabilities arising out of the Consultant's contractual obligation with the Consultant's personnel, experts, engineers, Sub-contractors, licensors, collaborators, vendors, or subsidiaries.

**25.2** The Consultant and the Employer both agree that each shall assume full risk of damages of injury to its own properties, employees and representatives caused by any act or omission to act by their respective employees or representatives, during the performance.

**26.0 CHANGES/ADDITIONS/DELETIONS**

**26.1** The Employer shall have the right to request in writing additions or changes in the scope of services to be performed by the Consultant. If in the Consultant's opinion, any such

additions or changes affect the completion schedule or the fee, Employer will be advised accordingly and the same shall be mutually settled. However, the Consultant shall continue to carry out the work pending till final settlement, if any.

**26.2** The Employer reserves the right to delete any item/s or part thereof from the scope of services to be performed by the Consultant. For such purposes the Employer shall give to the Consultant a notice in writing on receipt of which the Consultant shall take necessary steps as may be directed by the Employer and shall stop incurring any expenditure and performing services in connection with the item/s of work so deleted.

**26.3** The corresponding fee for the deleted item(s) of work will be arrive based on the fee identified in the Contract and shall be deducted from the fee payable to the Consultant under the Contract. The Consultant, however, shall be entitled for the compensation of the amount of work and services already performed in connection with item(s) deleted from the scope, at a mutually acceptable fee.

**27.0 NO WAIVERS**

If Employer, in any instance, does not insist upon strict performance of any of the terms of the assignment, it shall not be construed as a waiver or relinquishment in the future till the assignment is in force and shall not relieve Consultant of any of its responsibilities under the assignment.

**28.0 INSTRUCTIONS AND NOTICES**

All notices to be given on behalf of the Employer and all other actions to be taken on its behalf may be given or taken by the Project In-charge or any officer for the time being entrusted with the functions, duties and powers of the Project In-charge.

All instructions, notices and communications, etc., shall be given in writing and if sent by registered / speed post to the last known place of business of the Consultant, shall be deemed to have been served on the dates when in the ordinary course of post these would have been delivered to him.

**29.0 BANKRUPTCY**

If the Consultant shall become bankrupt or have a receiving order made against him or compound with his creditors or being a corporation commence to be wound up, not being a voluntary winding up for the purpose only amalgamation or reconstruction, or carry on their business under a receiver for the benefit of their creditors or any of them, the Employer shall be at liberty:

i) To terminate the assignment forthwith without any notice in writing to the Consultant or to the liquidator or receiver or to any person in whom the Consultant may become vested.

ii) To give such liquidator receiver or other person the option of carrying out the consultancy assignment subject to their providing a guarantee for the due and faithful performance of the assignment up to an amount to be determined by the Employer.

**30.0 PROGRESS REPORT**

**30.1** The Consultant shall prepare and submit to the Employer weekly progress report showing the progress and status of the `Works being performed by him including such materials as charts, networks and photograph (if any) as per the directives of the Employer. Draft formats of progress reports shall be enclosed by the Consultant with the offer.

**30.2** It is understood that submission of such reports and reviews thereof by the Employer shall not be deemed to absolve the Consultant of his responsibility of timely completion of the Assignment as per the time schedule indicated herein.

**31.0 CORRESPONDENCE AND CONTRACT COORDINATION PROCEDURE**

**31.1** All correspondence during the pre-award stage and during execution of the contract shall be made as per following procedure:-

**31.2** On all technical matters pertaining to execution of the contract as per specification in the consultant shall directly interact with the Project In-charge.

**31.3** All correspondence from the Employer to the Consultant shall be made with the full time Coordinator to be identified by the consultant and agreed by Employer.

**32.0 INSPECTION OF SITE BY CONSULTANT**

The Consultant shall inspect and examine the site and its surroundings and shall satisfy himself as to the form and nature of the site, the quantities and nature of work and the equipment / materials necessary information as to risks, contingencies, and other circumstances, which may influence or affect his tender, before bidding.

**33.0 MANPOWER DEPLOYMENT**

The Consultant shall deploy task force of well qualified and experienced engineering / science executive and draftsmen for this work. The manpower proposed to be deployed for this task shall be guaranteed by the Consultant in his offer both discipline-wise and category wise (for Engineers / Scientists and draftsmen) required for completion of service included under the scope of the specification. The Consultant shall depute a senior level executive to act as fulltime overall coordinator and focal point for all interactions with the Employer throughout the entire period of consultancy assignment. The bio-data of the Engineering / Scientific personnel proposed to be included in the Task Force should be enclosed with the offer. The task force so proposed is subject to the approval of the Employer. The Employer may ask for suitable substitution of Engineers/Scientists in place of the proposed ones, if it so desires.

## 34.0 LIST OF EQUIPMENT / INSTRUMENTS

The Employer shall not make any additional payment for any type of equipment / accessories required by the consultant for this package or for any other purpose.

## 35.0 CO-ORDINATION PROCEDURE

The Consultant shall propose in its offer the detailed co-ordination procedure with the Employer for performing the services. The system to be adopted shall provide control and continuity of all functions. Employer's participation in the major decisions shall be essential to the extent desired by the Employer. The coordination procedure and schedules of coordination review meeting between the Employer and the Consultant shall be mutually discussed and finalized before award of the Contract.

## 36.0 COLLABORATION

The Consultant will be required to furnish the details its collaboration arrangement with various laboratories, institutions and other organizations along with consent letters from the collaborators categorically agreeing to carry out the assignment till the completion of the study. Such consent letter must contain a declaration that the consent given by the collaborator is irrevocable till successful completion of the assignment. The proposal will also precisely outline the responsibilities and task to be undertaken by the collaborator(s). The consent letters from the collaborators shall be enclosed with the Bid.

## 37.0 ASSOCIATION OF THE EMPLOYER

The Employer may depute its representative to be present during the entire course of studies or any part thereof. The Project In-charge or his/her authorized representatives will have to be provided necessary information when asked for. He/she may further monitor the field and laboratory activities, and supervise the finalization of the documents. The Engineers will also discuss results of studies and may suggest different cases to be studied. The Consultant shall provide all facilities for the Employer's Project In-charge / Representatives to have fruitful participation in the work. The Consultant will submit all study results draft sections / documents to the Project In-charge for his approval and the final document will be prepared after incorporating changes / modifications / additions / alterations suggested by the Project In-charge.

## 38.0 LANGUAGE

The offer must be submitted in English language, all documents, specifications, schedules, notices correspondences, operation & maintenance instructions, drawings or any other written material in connection with this work shall be in English language.

## 39.0 UNITS & INDIAN STANDARDS / CODES / REGULATIONS

Indian Standards, codes and regulations, wherever applicable, shall be adopted and adhered to by the Consultant. In case of such Indian Standards / Codes / Regulations being

not available in particular areas, applicable and accepted International standards shall be followed.

## 40.0 EMPLOYER'S RIGHT

Employer reserves the right for the following:

i) Rejection of any or all offers without assigning any reason whatsoever.

ii) Rejection of any offer which is incomplete with regard to the required information of Scope of Work.

iii) Review of the work performed by the Consultant either himself or through another Consultant separately appointed by him and asks for any clarification and changes / modifications to the work performed by the Consultant. Such changes shall be mutually discussed and agreed upon between the Employer and Consultant in his work without any cost and liability to the Employer and without any dilution of the responsibility of the consultant.

## 41.0 TRAVEL EXPENSES

The travel expenses incurred by the Consultant's personnel for journeys to site or Employer's Office or anywhere in connection with the study under Scope of this Specification will be borne by the Consultant and the Employer will not take any responsibility whatsoever on this account

## 42.0 ACCESS TO CONSULTANT'S OFFICE / WORK SITE

The authorized representative(s) of the Employer shall be provided access to the Consultant's and/or its Associates premises or to the work site at any reasonable time during the currency of this work for expediting, inspection & checking of the progress of the Consultant's work.

# PFC CONSULTING LIMITED

**(A wholly owned subsidiary of Power Finance Corporation Ltd. -
A Government of India Undertaking)**

## VOLUME – III

## TECHNICAL SPECIFICATION

**Survey & Preparation of Report for *"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "*- using Modern Survey Techniques.**

**TECHNICAL SPECIFICATIONS FOR SURVEY & PREPARATION OF REPORT USING MODERN SURVEY TECHNIQUES**

## 1.0 General Information & Scope of Work

**1.1.** The technical specification covers survey using modern survey techniques for route alignment of` lines, identification of substation sites and preparation of report for the transmission scheme ***"Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW) "*** comprising the followingelements:

| Sl | Detailed Scope of the Project | Tentative Route Length (km) / Capacity (MVA) |
|---|---|---|
| 1. | Augmentation of Tumkur-II PS by 400/220 kV, 3x500 MVA ICTs (5th to 7th) | • 400/220kV, 500 MVA, ICTs – 3 Nos.<br>• 400kV ICT bays – 3 Nos.<br>• 220kV ICT bays – 3 Nos.<br>• 220kV Bus Sectionalizer: 2 set<br>• 220 kV Bus Coupler (BC) Bay – 2 Nos.<br>• 220 kV Transfer Bus Coupler (TBC) Bay – 2 Nos. |
| 2. | Tumkur-II – Madhugiri 400kV (Quad) D/c line (~ 100 km) | ~ 100 km<br>• 400kV line bays – 2 Nos. (at Tumkur-II PS)<br>• 400kV line bays – 2 Nos. (at Madhugiri) |
| 3. | ± 300 MVAR STATCOM at Tumkur-II PS with switching arrangement of under implementation 2x125 MVAr bus reactors. | • ± 300 MVAR STATCOM at Tumkur-II PS with switching arrangement of under implementation 2x125 MVAr bus reactors.<br>• 400 kV bay – 1 No. |
| 4. | 2 Nos. of 220kV line bay at Tumkur-II PS for termination of dedicated transmission lines of RE developers | • 220kV line bays – 2 Nos. |

**1.2.** The scope of work inter-alia shall include the following:-

a) Route Alignment in KMZ/KML file on Bhuvan (Indian Geo-Platform of ISRO) / Google imagery and Survey of India topographical maps (both in hard & soft copies) to the extent required, inter-alia including:

i) Identification of three alternative route alignments & selection of one optimized route alignment in consultation with the Employer i.e. PFCCL. The output (both in hard & soft copies) shall be in the form of final route alignment in KML/KMZ file and pdf / digitized topographical map (i.e. digitized topo sheets of Survey of India) with latest details/features including but not limited to forest, revenue area, protected area, wildlife infringement, Animal/Bird sanctuary, infringement of endangered species habitats, Great Indian Bustard

(GIB) area, civil and defense Airports, all rivers, sea, coal, mineral areas, mining areas, oil pipe line/underground inflammable pipe lines, railway lines, canals, roads, defense setup etc. upto 8 kms on both sides of selected route alignment.

ii) Walk-over Survey of the route alignment (to be finalized in consultation with the Employer).

iii) Preparation of Survey Report including identification and explanation of route constraints like Forest, revenue area, protected area, wildlife infringement, Animal/Bird sanctuary, infringement of endangered species habitats, GIB area, vicinity to civil and defense Airports, major river/sea crossings & coal, mineral mining areas, oil pipe line/underground inflammable pipe lines, railway lines, canals, roads, defense setup etc.), infrastructure details available enroute, various clearances required in the final route alignment, etc.

b) Preparation of Survey Report incorporating the details as per **Annexure-A**.

c) Initiation of any forest clearance based on survey of final route alignment with the concerned Authorities.

d) The survey report should also mention about various clearances required in the final route alignment, probable RoW constraints areas etc.

e) Estimation of the land area required for the substations considering the present & future scope of the substations specified at Clause 1.1 above including provision of staff quarter. Preparation of Single Line Diagram for assessment of land requirement including identification of three alternatives of sites along with selection of one optimized site for the substation in consultation with Employer as detailed in Clause 4.0 hereinafter.

f) Preparation of alternative site identification Report & selection of one optimized site incorporating the details as per **Annexure-B**.

**1.3.** The quantities indicated in the scope of work are provisional. The final quantities for route alignment & survey (quantities in “kms” unit) shall be the route length along the optimized route alignment. The route alignment shall be carried out by the ‘Contractor’, as per the technical specifications stipulated herein.

**1.4.** The Contractor must note that the Employer shall not be responsible for loss or damage to properties, trees etc. due to contractor’s work during survey. The Contractor shall indemnify the Employer for any loss or damage to properties, trees etc. during the survey work.

**1.5.** The Contractor should note that Employer will not furnish any software or topographical maps prepared by Survey of India, but may assist in obtaining these by providing letters of recommendations, if required, to concerned authorities. Contractor shall have to use original licensed version of the software (not the beta version).Contractor shall give along with their bid, the confirmation/comments/observation in respect of all clauses of technical specification.

**1.6.** The work shall be carried out by the contractor using modern surveying techniques. The contractor shall indicate in his offer, the detailed description of the procedure to be deployed. The details of the equipment & facilities including software’s for image

processing, etc. available with the Contractor or his associates shall also be furnished with the bid.

**1.7.** It shall be the responsibility of the Contractor to obtain required permissions from various authorities/agencies (if required) for carrying out survey work. Employer will facilitate by way of issuing authorization letter to the Contractor.

**1.8.** Any other activity not specifically mentioned in this specification but required for successful completion of the scope of work shall be deemed included in the scope of the Contractor, without any cost implication to the Employer.

**1.9. Location Details**

The bidders may visit the site to acquaint themselves with the terrain etc. For this purpose or for any other clarifications, they may contact the Employer at the following address:

**Deputy General Manager,**
PFC Consulting Limited,
9th Floor, A-Wing, Statesman House,
Connaught Place, New Delhi-110001
**Email:** ...
**Ph.: ….,**

## 2.0 Route Alignment of Transmission Line

**2.1** Route Alignment shall be done using Bhuvan / Google imagery and Survey of India topographical maps (scale 1:50,000). In case the required Survey of India maps are available in digitized form, the same shall be procured and used by the contractor. The contractor shall identify & examine three alternative route alignments and suggest to the Employer the optimal route alignment between the terminal points.

### 2.2 Requirement of Transmission Line Routing

2.2.1 The alignment of the transmission line shall be most economical from the point of view of construction (i.e. supply, erection and commissioning) and maintenance.

2.2.2 The line routing should avoid large habitations, densely populated areas, scheduled areas, forest/national park/wildlife infringement/GIB/Animal/Bird Sanctuary, infringement of endangered species habitat, vicinity to civil and defense Airports, major river/sea crossings & coal/ mineral mining areas, oil pipe line/underground pipe line/land slide prone areas, firing range, coastal regulation zones, inflammable pipe lines etc. to the extent possible. In case it is not possible to avoid the forests or areas having large trees completely, then keeping in view the overall economy, the route should be aligned in such a way that cutting of trees is minimum.

2.2.3 Routing of transmission lines shall be done in accordance with CEA (Technical Standards for Construction of Electrical Plants and Electric lines) Regulations 2022 and subsequent amendments, and relevant Indian Standard (IS)/ codes.

2.2.4 The route should have minimum crossings of Major River, Railway lines, National/State highways, overhead EHV power line and communication lines.

2.2.5 The number of angle points shall be kept to a minimum.

2.2.6 The distance between the terminal points specified shall be kept shortest possible, consistent with the terrain that is encountered.

2.2.7 Creeks, Marshy and low lying areas, river beds and earth slip zones shall be avoided to minimize risk to the foundations.

2.2.8 It would be preferable to utilize level ground for the alignment.

2.2.9 Crossing of power lines shall be minimum. Alignment will be kept at a suitable distance from power lines to avoid induction problems on the lower voltage lines.

2.2.10 Crossing of communication line shall be minimized and it shall be preferably at right angle. Proximity and parallel route with telecom lines shall be avoided to eliminate effect of induction in the telecom lines.

2.2.11 Areas subjected to flooding such as Nalah shall be avoided.

2.2.12 Restricted areas such as civil and military airfield and shooting ranges shall be avoided. Care shall also be taken to avoid aircraft landing approaches.

2.2.13 All alignment should be easily accessible both in dry and rainy seasons to enable maintenance throughout the year.

2.2.14 Certain areas such as quarry sites, tea, tobacco and saffron fields and rich plantations, gardens & nurseries which would cause problems in acquisition of right of way and construction and maintenance activities, should be avoided.

2.2.15 Angle points should be selected such that shifting of the point within 100 m radius shall be possible at the time of construction of the line.

2.2.16 The areas requiring special foundations and those prone to flooding should be avoided.

2.2.17 For examination of the alternatives & identification of the most appropriate route, besides making use of information/data/details available/extracted through Survey of India Topographical maps, the contractor shall also carryout reconnaissance/ preliminary survey for verification & collection of additional information /data/details.

2.2.18 The contractor shall propose no. of pile/special foundations if required, for crossing of major river spans/large water bodies/creek area and such crossings should be preferably through the narrowest width of the river/water body. The contractor shall propose any type of pile or special foundation required during routing of the line.

2.2.19 The contractor shall submit his preliminary observations & suggestions along with various information/data /details collected and also processed satellite imagery data, scanned topographical map data marked with the alternative routes etc. The final evaluation of the alternative routes shall be conducted by the contractor in consultation with Employer's representatives and optimal route alignment shall be proposed by the contractor. Site visit and field verification shall be conducted by the contractor for the proposed route alignment.

2.2.20 The route of the transmission line shall be recorded using GPS/DGPS of positional accuracy less than 3m. The co-ordinates of all the angle points as well as other important crossings, landmarks etc. shall be recorded using GPS instrument. The details such as legends, project description, direction marker etc. shall be with white background.

2.2.21 Wind Zone map of NBC-2016 and amendment thereof and if data available, from local metrological department is to be referred for identifying wind zone of the terrain through which the line traverses. Wind zone of every section (between consecutive angle points) of the line is to be indicated in the final report. Further, for transmission line sections passing within a distance of 50 km from the boundary of two wind zones (indicated in NBC map), higher of the two wind zones shall be considered for such sections.

## 3.0 Tower Scheduling

The tower schedule shall include details of all the towers of the transmission line.

**3.1** The following shall be borne in mind

**a) Span**

The maximum length of a section shall not exceed 15 spans or 5 Km in plain terrain and 10 spans or 3 km in hilly terrain. Further, in case of line traversing through cyclone prone area i.e. areas up to 60 km from coast, the maximum length of a section shall not exceed 10 spans or 3 km, in order to reduce the failure of such towers in coastal areas due to cascading effect. A section point shall comprise of tension point with DB/B type or DC/C type or DD/D type towers as applicable. The normal span shall be considered as 350 m for 220 kV, 400 m for 400 kV lines and 400m for 765 kV lines. Similarly, normal span for monopoles may be considered as 150m – 200m (angle pole / pole structures) and 250m (tangent pole / pole structures) for 765 kV and 400kV respectively, 300m-350m for 220kV. Right of Way shall be as per statutory guidelines.

**b) Railway Crossings**

All the railway crossings enroute the transmission line shall be identified by the Contractor. The crossings shall be supported on DD/D type towers on either side. The crossing span will be limited to 300 meters. The crossing shall normally be at right angle to the railway track. No crossing shall be located over a booster transformer, traction switching station, traction sub-station, Overlap Section or a track cabin location in an electrified area. Clearance between the overhead line and railway track shall be in accordance with the Regulations for Power Line Crossings of Railway Tracks laid down by the Railway Authorities.

**c) National Expressway/ National Highway/State Highway Crossings**

All the highway crossings enroute the transmission line shall be identified by the Surveyor. Information about the planned/announced/notified highways should also be gathers. The crossing shall be supported on DD/D type towers on both sides of the crossing. The crossing span will be limited to 300 meters. The crossing shall normally be at a right angle to the highways.

**d) Sea/River/canal/lake/Crossings**

Suitable type of suspension/tension tower shall be used for crossings. Navigable or non-navigable river is to be identified. For non-navigable river, clearance shall be reckoned with respect to highest flood level (HFL). HFL and distance of the nearest recorded HFL point from the river crossing to be provided. Span and name of the river to be provided. For lake, reservoir, canal, & large water body crossing, crossing span to be provided along with Full Reservoir Level (FRL) wherever applicable. For line passing/crossing through sea, High tide level (HTL) to be provided.

**e) Power line Crossings**

For power line crossing following points shall also be applicable: -

i) For power line crossing of 400 kV or above voltage level, large angle & dead end towers (i.e. D/DD/QD) shall be used on either side of power line crossing.

ii) For power line crossing of 132 kV and 220 kV (or 230 kV) voltage level, angle towers (B/C/D/DB/DC/DD/QB/QC/QD) shall be used on either side of power line crossing depending upon the merit of the prevailing site condition and line deviation requirement.

iii) For power line crossing of 66 kV and below voltage level, suspension/tension towers shall be provided on either side of power line crossing depending upon the merit of the prevailing site condition and line deviation requirement.

**f) Telecommunication Line Crossings**

The angle of crossing shall be as near to 90 degree as possible. However, deviation to the extent of 30 degree may be permitted under exceptionally difficult situations.

**g) Crossing of wildlife/ eco sensitive zones**

i) During the survey work of transmission lines (up to 400 kV level) which are passing through wildlife/ eco sensitive zones, the possibility of stringing the transmission line on available transmission corridor (i.e. vacant circuits) of existing multi circuit transmission lines, if any, traversing through the same wildlife/eco sensitive zone shall be explored by the surveyor and the coordinates of these existing transmission line towers shall be provided in the report. The details of route considering these multi circuit transmission towers for the wildlife/eco sensitive area shall be included as an alternative in the survey report.

ii) For the transmission lines up to 400 kV level which are passing through wildlife/ eco sensitive zones, the survey work for towers located in such sections shall be done considering Multi-circuit (4 circuits) configuration of same voltage level. The top cross arms of these multi-circuit towers shall be used for stringing initially & the balance cross arms shall be made available for stringing of any future transmission line (inter-state or Inter-state) passing through the same wildlife/ eco sensitive zone.

**h) Crossing of Petroleum/Gas lines**

**i)** No tower footing/structure of an overhead line of voltage 33 kV or above/HVDC shall be closer than 25 meters from the edge of the Right of Way (ROW) of a Petroleum/National Gas Pipeline.

ii) Wherever overhead line of voltage 33 kV or above/HVDC shall intend to cross the Right of Way (RoW) of Petroleum/natural Gas Pipeline, the angle of crossing of overhead line with respect to the pipelines shall preferably be right angles, but the crossing angle shall not be less than 75 degrees in any case.

## 3.2 Clearance from Ground, Building, Trees etc.

Clearance from ground, buildings, trees and telephone lines shall be provided in conformity with the CEA (Measures relating to Safety and Electricity Supply) Regulations, 2023, as amended.

The contractor shall also intimate the Employer, his assessment about the likely no. of trees required to be cut during execution stage. This assessment shall be done considering prevailing practices/ guidelines local regulation and other enquiries from local authorities.

**3.3 Survey Report**

3.3.1 Each angle point location with angle of deviation, elevation above MSL shall be shown with detailed sketches showing existing close-by permanent land marks such as specific tree(s), cattle shed, homes, tube wells, temples, electric pole/tower, telephone pole, canal, roads, railway lines etc. The relative distance of land marks from the angle points and their bearings shall be indicated in the sketch. These details shall be included in the survey report in tabular format along with sketches.

3.3.2 Information w.r.t. infrastructure details available enroute, identification and explanation of route constraints, etc. shall also be furnished in the Survey report

3.3.3 All observations which the Contractor thinks would be useful to the construction of the transmission lines mentioned under scope of work are to be reported.

3.3.4 Some portions of the line may require clearance from various authorities. The Contractor shall indicate the portion of the line that requires clearance and the name of concerned organizations such as local bodies, municipalities, P&T (name of circle), Inland navigation, Irrigation Department, Electricity Boards and Zonal railways, Divisional Forest Authorities, Civil & defense airports, sea ports, defense areas etc. from whom the clearance is required.

3.3.5 The Transmission Line may encounter snowbound areas and may also pass through elevations of above 1000 m above mean sea level (MSL). Contractor shall provide details of minimum & maximum elevations above mean sea level of the route alignment. The line sections which may be affected in snowbound areas to be indicated in the report.

**4.0 Sub Stations**

**4.1** The contractor shall estimate and verify the requirement of land for the present & future scope of the substations mentioned at clause 1.1, including provision of staff quarters and for this purpose. The contractor shall prepare a Single Line Diagram for the Sub-station in order to assess the requirement of land in consultation with the Employer. The contractor shall identify a minimum of three sites of adequate size for sub-station. The optimum location of sub-station shall be finalized in consultation with the Employer. The Contractor shall estimate the cost of the proposed site keeping in view the area required (including provision of staff quarters) and the prevalent rate/acre for various types of land, which shall also be separately indicated. The details as per Annexure-A & B shall be furnished for each of the proposed alternative sites of the sub-station. Contractor shall provide details of

elevations above mean sea level of the all three alternative sites of the Substation. GPS co-ordinates of the corners of the substation sites shall also be included in the report.

**4.2 Selection of Substation site criteria:**

4.2.1 Preferably fairly levelled land and nearness to motor able road.

4.2.2 Away from vicinity of rivers, sea coast, creeks, marshy lands and area of subsidence.

4.2.3 HFL of the nearest river or FRL of the nearest dam/reservoir to be provided and distance from such water body to be indicated.

4.2.4 Avoiding forest land, scheduled areas, vicinity to airports, any land belonging to authorities like railways, highways, mining, oil, defense, educational institutions, religious institutions, hospital , etc.

4.2.5 Area subjected to flooding and higher water accumulation should be avoided.

4.2.6 Indicative level (Altitude above MSL) of the site and nearest motor able road to be indicated.

4.2.7 Size of the land for the proposed site shall preferably be rectangular and shall preferably have at least three side open for line corridors.

4.2.8 Area with religious structures such as graveyard, temple, mosque etc. should be avoided.

4.2.9 Approach road to the site shall be suitable for transportation of the heaviest equipment of the sub-station i.e. Transformer, Reactor etc. Requirement of strengthening of bridges/culverts, if required, needs to be indicated in the Report.

**4.3 Details about Substation Vicinity:**

4.3.1 The Contractor is to provide details about the 3 Km area (as applicable) in the vicinity of the finalized substation location, so as to have flexibility for relocation of the substation, if required subsequently.

4.3.2 The Contractor is to provide land schedule and revenue /khasra map of the site finalized for substation location.

**5.0 Statutory Regulations and Standards**

**5.1 Statutory Regulations**

The Contractor is required to follow local statutory regulations stipulated in Electricity Act 2003, CEA (Measures relating to Safety and Electricity Supply) Regulations 2023, CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2022 and its amendments, Railway Regulations, Defence /Civil aviation guidelines, MoEF guidelines, Inland Water Authority of India/Central Water Commission (CWC) Regulations/Guideleines etc. as amended from time to time and other applicable local rules and regulations.

**6.0 Completion Period for Survey using Modern Survey Techniques and preparation of report**

**6.1** Submission of alternate route alignments for transmission line and finalization of optimized route alignments for transmission line and estimation of land requirement and identification of three alternative sites for substation and selection of one optimized site as per **Annexure-A & B of Volume-III (Technical Specifications)** in consultation with the Employer within **one (1) week** from the date of LoA.

**6.2** Walk over survey of the optimized route and submission of Draft Reports **(three copies)** including the details of the substations and incorporating details as per **Annexure-A & B of Volume-III (Technical Specifications)** within three (3) weeks from the date of LoA.

**6.3** Surveyor to inform about the clearances to be taken by within **three (3) weeks** from the date of LoA.

**6.4** The Contractor shall submit **Five (05) copies** of final report, both in soft and hard copies, in English language within **Six (6) weeks** from the date of the Letter of Award (LoA).

**6.5** The Contractor would be responsible for the following activities till the award of work to Transmission Service Provider:

i) Initiation of forest clearances (if optimized route is passing through forest land), including preparation & filing of application and follow-up/co-ordination with the concerned Authorities.

ii) Initiation of land acquisition (if applicable) for substation including preparation & filing of application and follow-up/co-ordination with the the bidder/BPC for execution of the project.

iii) Initiation of any other clearance as above.

**6.6** The Contractor shall be required to attend the meetings/conference with the prospective TSPs or any other agency as intimated by Employer to clarify the issues relating to Survey during the Bidding Process of the transmission scheme.

**6.7** PFCCL team would verify the draft report / route alignment / site for substation as proposed by the Contractor, in the field. The contractor would ensure availability of the competent personnel with necessary instruments required during such field visits.

**7.0 Deliverables:**

**All the deliverables, as mentioned in this clause and Volume-III (Technical Specifications) shall be submitted.**

**7.1** The Contractor will submit progress report for all the works/ studies/ survey every fortnight as per the format mutually agreed upon.

**7.2** The Contractor will submit **three (03) hard copies** of the draft report with requisite plans & drawings in English language. The Contractor is also required to submit geotagged detailing of photographs of each Angle point (AP). The tower schedule shall include details of all the towers along with the transmission route.

**7.3** The Contractor will submit **five (05) hard copies** of Final Report (high quality printout) with requisite plans & drawings in English language. The Final Report should be submitted within seven (07) days after comments of Employer on draft report. The final report and drawings (both hard copy as well as soft copy) shall also include the GPS coordinates of selected points of the final route as per specifications.

**7.4** Soft copy shall also be submitted for the Report along with drawings.

**7.5** All raw data for all the studies/ reports/ surveys shall also be submitted.

**7.6** All reports shall be submitted in A4 size sheets with font size 12, properly bound and printed using good quality paper & material. Map/sketch shall be provided in appropriate size sheets.

**7.7** Any other deliverable as per scope of work defined in technical specifications **Volume-III (Technical Specifications)**.

**Annexure - A**

## Content of Work for Report

| Description |
|---|
| 1. Project Highlight<br>2. Brief Background<br>3. Scope of Work<br>4. Complete project profile of the project giving technical parameters of the Transmission System & equipment.<br>5. Metrological data like temp., humidity, rainfall, type of terrain, max. altitude, snow zone, wind zone, &pressure.<br>**6. DETAILS RELATED TO TRANSMISSION LINE**<br>Survey Report covering the scope of work detailed in the specification with all maps & other enclosures including details of the following enroute the transmission line:<br>a) Places of Archaeological importance, river (navigable or non-navigable), lakes, reservoir, canal, large water body, streams, Estuary, sea, hills/ mountains, coal, mineral mining areas, shooting ranges/firing range, coastal regulation zones, oil pipe line/underground inflammable pipe lines etc.<br>b) Places of Historical, Cultural, Religious or tourist importance<br>c) Defense installation/ vicinity to civil and Airports/Seaports/ shooting ranges/firing ranges<br>d) Right of Way (RoW) cost at market rate for laying of transmission lines.<br>e) Railway /Highway Crossings<br>f) Power Line / Telecom Line Crossings<br>g) Land Availability (if required for acquisition)<br>i) Extent of land available<br>ii) Land use pattern (agricultural, barren, forest etc.)<br>iii) Land ownership (Govt. Pvt., tribal, non-tribal etc.)<br>h) Environmental and social aspect<br>i) Forest Involvement (revenue/ Reserve/protected etc.) / Clearance<br>ii) Social Issue / R&R Measure<br>iii) wildlife infringement |

| Description |
| --- |
| iv) Animal/Bird sanctuary/ eco-sensitive zone<br>v) infringement of endangered species habitat<br>vi) national park<br>vii) GIB area (Priority/Potential area)<br>i) Creeks, Marshy and low-lying areas<br>j) No. of pile/special foundations<br>k) Angle point location with angle of deviation, GPS coordinates, section length, cumulative length, crossing details, elevation above MSL, wind zone, snow zone<br>l) Circle rate of land, cost of Crop & Tree compensation<br>m) Pollution level, section wise as per available pollution map<br>n) Any other details relevant to the route. |

**Annexure - B**

**Information Required for Substation Sites**

| S. No. | Criterion | Site-I | Site-II | Site-III | Remarks |
|---|---|---|---|---|---|
| 1.0 | Land Co-ordinates | | | | |
| a) | Corner 1 | | | | |
| b) | Corner 2 | | | | |
| c) | Corner 3 | | | | |
| d) | Corner 4 | | | | |
| e) | ---------- | | | | |
| 1.1 | Size (Acre) (Mtr x Mtr) | | | | |
| 1.2 | Govt. /Private/Forest land | | | | |
| 1.3 | Forest land details | | | | |
| 1.4 | Agriculture/Waste land | | | | |
| 1.5 | Development | | | | |
| 1.6 | Approximate cost | | | | |
| | a. Circle rate per acre | | | | |
| | b. Market rate per acre | | | | |
| | c. Approx. cost of the land | | | | |
| 1.7 | Terrain | | | | |
| 1.8 | Type of soil | | | | |
| 1.9 | No. of Owners as per land records | | | | |
| 1.10 | Location with reference to nearest town | | | | |
| 1.11 | H.F.L. Data | | | | |
| 1.12 | Diversion of Nallah/Canal required | | | | |

| S. No. | Criterion | Site-I | Site-II | Site-III | Remarks |
|---|---|---|---|---|---|
| 1.13 | Slope | | | | |
| 1.14 | Approximate Extent of leveling required (in meter) | | | | |
| 1.15 | Land acquisition feasibility | | | | |
| 1.16 | Rate of Govt. Land | | | | |
| 1.17 | Extent of approach | | | | |
| 1.18 | Planned/unplanned development | | | | |
| 1.19 | Size of sites (m x m) | | | | |
| 1.20 | No. of families to be displaced | | | | |
| 1.21 | Level of site with reference to road level | | | | |
| | a. Level of road | | | | |
| | b. Level of site | | | | |
| 1.22 | Distance from sea shore | | | | |
| 1.23 | Approach | | | | |
| 1.24 | Logistics survey | | | | |
| 2.0 | Obstacles in reaching site | | | | |
| 2.1 | Nearby main road | | | | |
| 2.2 | Length of approach road to be constructed | | | | |
| 2.3 | Name of nearest airport | | | | |
| 2.4 | Name of nearest Rail head | | | | |
| 2.5 | Upcoming Aviation/Airport zone /Airforce Station / Air strips | | | | |
| 2.6 | Availability of ground water | | | | |

| S. No. | Criterion | Site-I | Site-II | Site-III | Remarks |
|---|---|---|---|---|---|
| 2.7 | Availability of transmission corridor (Three /four sides) | | | | |
| 2.8 | Existence of structures/dwelling units in the land of the proposed site | | | | |
| 2.9 | Availability of disposal of rain/storm water | | | | |
| 2.10 | Crops grown and types (Multi-crop/single crop) | | | | |
| 2.11 | Distance from main road | | | | |
| 2.12 | Nearest railway station (BG/MG) | | | | |
| 2.13 | Unloading facility at railway station | | | | |
| 2.14 | No. of Culverts required for approach | | | | |
| 2.15 | Nearest EHV line | | | | |
| 2.16 | Length of line between this site & nearest substation for construction power at 33/11kV | | | | |
| 2.17 | Frontage for line take off | | | | |
| 2.18 | Telephone/Telegraph line | | | | |
| 3.0 | Community Facilities | | | | |
| 3.1 | Drinking Water | | | | |
| 3.2 | Drainage | | | | |
| 3.3 | Distance from<br>a. Post Office<br>b. Telephone<br>c. School<br>d. Market | | | | |
| 3.4 | Security | | | | |
| 3.5 | Availability of construction water | | | | |

| S. No. | Criterion | Site-I | Site-II | Site-III | Remarks |
|---|---|---|---|---|---|
| 3.6 | Availability of drinking water | | | | |
| 4.0 | Seismic zones | | | | |
| 5.0 | Army cantonment /Mining /No go areas | | | | |
| 6.0 | Others | | | | |
| 7.0 | Recommended Site with justification/ benefit of the proposed site wrt the other alternatives | | | | |

**Additional Information Required for Substation Site**

The contractor would provide the details of following falling within the 3 kms radius of the recommended site for the Substation

a) Places of Archaeological importance, Places of Historical, Cultural, Religious or Tourist importance

b) Sea, River (navigable or non-navigable), canal, streams, Creeks lakes, reservoir, large water body.

c) Hills/ mountains/ Hillocks / sand dunes/ Marshy and low-lying areas

d) Estuary, coal, mineral/ mining areas, shooting ranges/firing range, coastal regulation zones, oil pipe line/underground inflammable pipe lines etc.

e) Defense installation/ Airports/Seaports/ shooting ranges/firing ranges

f) Railway /Highway Crossings/ Power Line / Telecom Line Crossings

g) Environmental and social aspect

   i) Forest Involvement (revenue/ Reserve/protected etc.) / Clearance

   ii) Social Issue / R&R Measure

   iii) wildlife infringement

   iv) Animal/Bird sanctuary/ eco-sensitive zone / national park / GIB area (Priority/Potential area)

   v) Elephant/ Tiger Corridor/ habitat of endangered species