PFC CONSULTING LIMITED

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

Electronic Tender Document

for

Appointment of Consultant for assisting PFCCL in Services for Load/ Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management

of

J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir



<u>Registered Office</u>: 1st Floor, "Urjanidhi" 1, Barakhambha Lane, Connaught Place, New Delhi - 110001

<u>Corporation Office</u>: 9th Floor, A Wing Statesman House, Connaught Place, New Delhi - 110001

January 19, 2022

Page **1** of **65**

PFC Consulting Ltd. invites E-Tenders for – 'Appointment of Consultant for assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir'

Important Dates:

| a) | Start Bid Date & Time | January 19,2022 from 1800 hrs (IST) |
|----|-----------------------|---------------------------------------|
| b) | Close Bid Date & Time | February 4, 2022, till 1500 hrs (IST) |
| c) | TOE Start Time | February 4, 2022, till 1530 hrs (IST) |
| d) | Financial Bid Opening | To be intimated to qualified bidders |

Note:

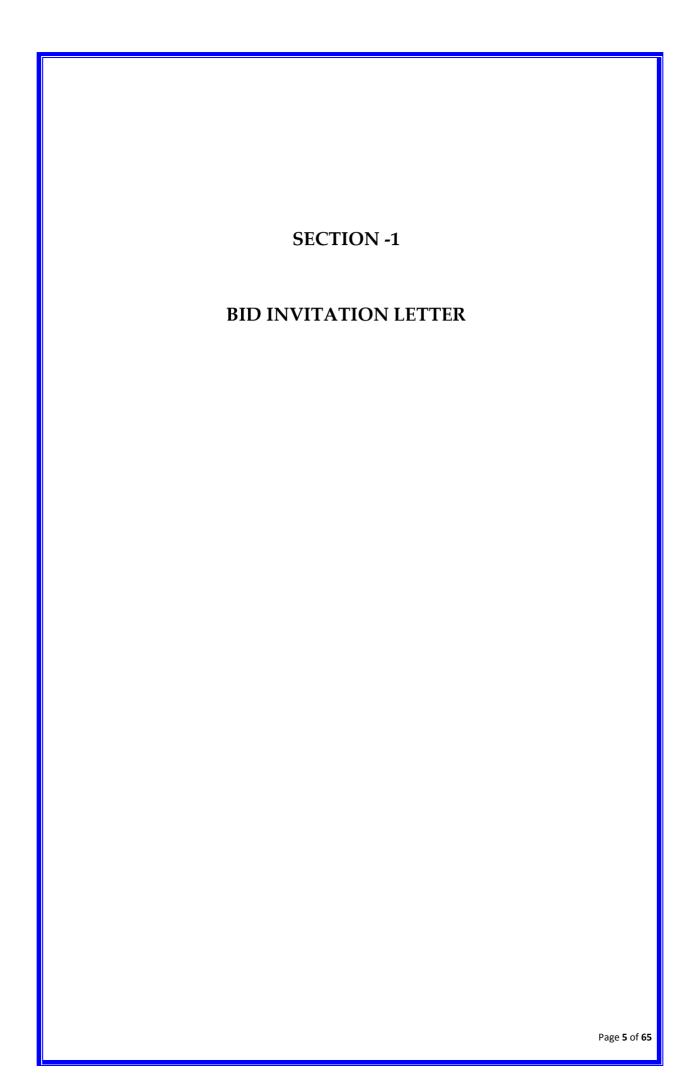
- 1. Tender Notice and Tender Document are available on PFC Consulting Ltd. website and can be downloaded from https://www.pfcclindia.com.
- 2. For bid submission, the Firm will have to necessarily download an official online copy of the Tender Document from e-Procurement Portal GeM Portal. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the PFC Consulting Ltd. website and said e-Procurement Portal only. Printed copy of Tender Document will not be sold from PFC Consulting Ltd. office.
- 3. The bidder shall bear all costs associated with the preparation, submission/participation in the bid. Issuerin no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.
- 4. Bidders are advised to start the registration process on the GeM Portal as it may take a few days to avoid any delay in bid submission (upload) stage. Bidders may visit GeM Portal Guidelines.

BID INFORMATION

| 1. | Name of the assignment | "Appointment of Consultant for assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir" | |
|-----|--|---|--|
| 2. | Name of the Client | PFC CONSULTING Limited (A wholly owned subsidiary of PFC Ltd.) | |
| 3. | Bid security / earnest money deposit (EMD) | Rs.30,00,000/- (Rupees Thirty Lakhs only) as Demand Draft or Bank Guarantee, valid for a period of 120 days beyond the end of validity period of the bid | |
| 4. | Issue/Publication of RFP on GeM | January 19, 2022 | |
| 5. | Last date for queries / seeking clarification | January 27, 2022 | |
| 6. | Last Date of availability of RFP <u>on</u> GeM | February 4, 2022 till 1500 hrs (IST) | |
| 7. | Last date & time of receipt of bids (on <u>GeM</u>) | February 4, 2022 till 1500 hrs (IST) | |
| 8. | Evaluation Process | Technical Evaluation including presentation Financial Evaluation based on Quality cum Cost Based System (QCBS) with weightage of 70:30 (70% for technical proposal and 30% for financial proposal) Note: Only short listed Bidder meeting qualifying requirement shall be called for presentation (part of technical evaluation) and technically qualified bids will be | |
| | | opened for Financial evaluation. | |
| 9. | Date & time of opening of technical bids on GeM Portal | February 4, 2022 till 1530 hrs (IST) | |
| 10. | Date & time of presentation | Will be intimated later | |
| 11. | Date & time of opening of financial bids | To be intimated later on to the eligible Bidders Note: The financial bids of the technically qualified Bidder will be opened at a pre-notified date, time and place. Prior intimation of the same will be given separately to the final short-listed Bidders. | |
| 12. | Place of submission of Bids | Completed bids to be uploaded on Government e- Marketing (GeM) Portal | |
| 13. | Place of opening of bids | GeM Portal | |
| 14. | Address for communication | Deputy General Manager PFC Consulting Ltd., 9th Floor, A-wing, Statesman House, Barakhamba Road, New Delhi-110001. Phone: 011-23443910 <i>Email: <u>pfccl.projects@pfcindia.com</u></i> | |
| 15. | Bid validity period | Upto 120 days from the date of opening of Technical Bid | |
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BID INVITATION LETTER

Ref: PFCCL/2020-21/Cons./ EPM

January 19, 2022

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|-----------|-------------------------------|---|
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Sub: PFC Consulting Ltd. invites E-Tenders for - Appointment of Consultant for assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir

Dear Sir,

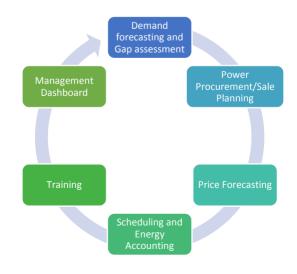
PFC Consulting Limited (PFCCL) wishes to avail services of a firm for providing services in Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.

Electronic Bids for the above are invited in single stage two envelope system (Technical bid & Price bid) from Indian firms/organizations.

The Scope of Work, Deliverables, Eligibility Criteria, Selection Procedure and Criteria, Terms of Payment, Terms and Conditions etc. are given below:

1. Scope of Work:

Bidder would provide a holistic solution for managing the overall power portfolio for JKPCL in the most optimal manner. Bidder shall possess experience in power portfolio management, scheduling, power market analysis etc. for providing advisory. The key modules of the solution shall include:



The above modules are explained in detail as below:

1.1. Demand Forecasting and Gap Assessment:

1.1.1. Demand/ Load Forecasting

i. Short Term Load Forecast

Firm would generate demand/ load forecast across varying horizon from Day Ahead to up to 7 day ahead at 15 minute intervals. The short-term forecast module would generate forecast for individual blocks (96 blocks of 15 minutes each) at the following level of granularity:

- a. Intra Day Load Forecast: Intraday load forecast on rolling basis (in line with the prevailing practices of utility)
- b. Day Ahead Load Forecast
- c. Week Ahead Load Forecast

<u>Parameters for ST Load Forecast</u>: Considering the present demand mix scenario of JKPCL, Firm shall include parameters like weather (temperature, humidity, rainfall, wind speed etc.), agricultural cycle, special events etc. in its load forecasting system.

ii. Medium Term Load Forecast

For medium term forecast, apart from the load curve Firm would also generate the load duration curve in order to analyse the duration for which the load tend to persist.

The Medium Term forecast model shall be customised based on the local conditions of JKPCL, J&K and shall be capable of generating the following:

- a. <u>Season Ahead Load Forecast</u>: Generic Monthly Load profile (hourly) for a typical day, for each Fortnightly/Month, for coming 2-12 months
- b. <u>Year Ahead Load Forecast</u>: Demand Forecast for up to next five years for JKPCL, J&K overall with Monthly and Annual Load Duration curves

Above forecast(s) shall be based on planning/growth dynamics of the state, with generation of specific scenario based forecasts

<u>Parameters for Medium Term Load Forecast</u>: The indicative factors to be considered for undertaking the said forecast are as below:

- a. Historical & forecasted weather parameters
- b. Demand side management activities by Utility
- c. Econometric parameters such as GDP, growth rate, real estate growth, industrial growth, sale of white goods in load centers etc.
- d. Population Growth
- e. Government Programs & Regulatory Policies
- f. New connections/ Electrification
- g. Any other factors which will affect demand or consumption

1.1.2. Supply Availability assessment

- i. Under this module, aggregation of all available sources of power in the name of PPAs, Banking, Bilateral etc. available with JKPCL, J&K shall be done.
- ii. Based upon the demand forecast undertaken in previous module and the supply availability, energy deficit / surplus report across horizon would be provided. Such report(s) would be available both in tabular as well as in the form of visual display.
- iii. Following considerations shall be taken while generating demand supply position map:
 - a. The system should be able to consider forecasted demand and available sources of power to create surplus/deficit positions.
 - b. System should also be able to consider risk-based scenarios for power availability to generate risk based position map along with risk associated under all such defined scenarios.
 - c. System should be able to generate short term and medium term scenarios for both demand & supply.

1.1.3. Integration of RE forecast in Supply availability

It should be made sure that the solution provided is capable of including the forecast of renewable generation and/or integrate the RE forecast(s) of the existing and upcoming RE PPA in the above *Supply Availability Assessment* scenario, along with other sources of power procurement.

Coordination with SLDC and the RE developers would be done to get the necessary forecasted inputs to get the overall aggregated supply availability for the state from all sources including RE.

Any real time changes in the RE supply forecast shall also be taken into consideration by the proposed System.

1.2. Power Procurement/ Sale Planning

Under this module, a holistic market strategy and advisory support would be provided to JKPCL, J&K's Power Management cell, so as to plan and execute procurement at the least cost by taking into consideration relevant market scenarios and also take advantage of any daily surplus by selling in spot market.

1.2.1. Market Participation Strategy:

This module would include market participation strategy, especially for participation in Green Day Ahead Market (GDAM) / Day Ahead Market (DAM)/ Market Based Economical Dispatch (MBED) / Term Ahead Market (TAM) / Real Time Market (RTM) of Power Exchanges, by advising on price and volume risk-mitigation strategies for market participation by the utility. Activities in this module include:

- i. Generation of price forecast for GDAM/ DAM/ MBED/ TAM/ RTM and preparation of market participation strategy by taking into consideration gap analysis of next-day.
- ii. For DAM/ MBED/TAM participation, the module includes devising risk mitigation strategies for minimising total cost of procurement and also complementing daily despatch of other available generation sources of the utility.
- iii. Market participation strategy so as to minimise price and volume risk in DAM/ MBED/TAM.

1.2.2. Bilateral Market Participation Strategy:

This module would include assistance in procurement through bilateral market, so as to manage price and volume risk associated with procurement in the market. This module includes:

- i. Assessment of market conditions and risks, for a horizon of upto one year ahead.
- ii. Price and volume risk assessment, by taking into consideration ongoing and foreseeable market conditions.
- iii. Assessment of existing PPA terms like Penalty and Compensation, Contract Obligation
- iv. Surplus / Shortfall Optimization if the quantum is to be absorbed
- v. Technical & Commercial constraints of contracted power
- vi. Pool Availability

1.3. Scheduling and Dispatch Planning

1.3.1. Day-ahead Dispatch Model/Schedule Optimizer:

Under this module, the final dispatch schedule on Day Ahead basis, based upon the forecasted demand, shall be prepared. All costs, constraints, etc shall be considered to generate most optimal schedule for day-ahead dispatch so as to meet the demand at the least-cost given available resources and risks.

Some of the considerations while preparing the optimal schedule shall include:

- i. Policy constraints such as notified supply hours, must-run renewables, emissions, etc.
- ii. Technical constraints such as ramp-up, ramp-down, technical minimum etc.
- iii. Transmission constrains considering:
 - a. Import and export capacity of each region
 - b. ATC, TTC and TRM of each Inter-State corridors
 - c. Short term margin available for each Inter-State corridors
 - d. Availability of the corridor under short, medium and long term sale/purchase of power
 - e. Regulatory constraints such as over-drawl limits, DSM charges, etc.
- iv. Existing ST,MT and LT PPA contracts and their costs (MERIT Order)
- v. Existing generation availability (schedule outages, forced outages)
- vi. Short-term Demand forecasts
- vii. RES intermittency

The module would have the ability to generate day-ahead and Intraday position map(s) considering forecasted demand & power availability from all tied-up sources like Long Term, Medium Term , Short Term OTC (Bilateral and Banking), and Exchange traded DAM/ Spot market in order to be able to meet the required demand at minimal cost and risk.

1.4. Price Forecasting

1.4.1. Day Ahead Price Forecasting

- i. The MCP & MCV for Day Ahead Market (DAM) shall be provided with a capability to store 365 days information and if required increase storage further. The forecasted MCP & MCV for DAM shall be provided based upon variables like:
 - a. Historical MCP & MCV data
 - b. Day Ahead , MBED and Term Ahead availability of transmission lines
 - c. Shortage and surplus of power region wise
 - d. Generation data region wise
- ii. These forecasted MCP shall be further used to prepare the merit order dispatch having said that system compares the forecasted MCP with the variable cost of generators (SGS & ISGS) considering the must run status of generators and bilateral prices.
- iii. A dashboard shall be provided for comparing Variable Cost of ISGS generator with forecasted Exchange price (Day Ahead).
- iv. Forecasted MCP would be provided with an upper band and lower band for each block.
- v. The forecast generated for DAM /MBED shall be used in bidding strategy and shall be disclosed with JKPCL.

1.5. Energy Accounting/ Scheduling

- i. Energy calculations of all the contracts would be done to cater to the different needs of the JKPCL like knowing their total energy consumption on a particular date, verification for compensation applicability while downward revision of their schedule, etc.
- ii. Accounting of Open Access charges (OAC) for OA users, generators, etc in accordance with OERC and CERC Regulations and subsequent amendments thereof shall also be taken care.
- iii. Verify the respective REAs considering the JKPCL's energy account as the reference.

1.6. Network Management

1.6.1. Network Monitoring

- i. All the online feeder data including data of energy meters through SCADA/SAMAST will be integrated with the solution for JKPCL, J&K. Subsequently as and when additional line feeders get online, the provision for the upload of the same will also be integrated into the system.
- ii. Firm shall endeavour to integrate the data communication of SLDC and NRLDC.
- iii. In the interim period until such time these data are available online, a separate provision should be made to upload the data. The mechanism for the same is to be devised in consultation with JKPCL.

1.6.2. Wide Area Monitoring

- i. Message (email and SMS based) to all GSS shall be intimated regarding feeder wise load control as and when required, depending on power availability and likely load.
- ii. Feeder wise scheduling and monitoring to ensure discipline in the network.

1.6.3. Database Management

- i. To develop a database for storing all relevant information pertaining to Generators, OA consumers, Traders etc. Proper integration shall be ascertained w.r.t. IT system of JKPCL.
- ii. The database will store all the static and dynamic parameters of Generators (ISGS, SGS, captives, IPPs and any other category).
- iii. The maintaining of outages information based on inputs from SLDC on the level of 11 kV, 33 kV and 132/220/400 kV shall also be included in the database.

1.6.4. Transmission Corridor Availability

- i. The solution will provide the following key information related to transmission corridor:
 - a. Capture each revision from NLDC.
 - b. Capture import and export capacity of each region.
 - c. Capture ATC, TTC and TRM of each Inter-State corridors.
 - d. Capture short term margin available for each Inter-State corridors.
- ii. Firm would also endeavour to take into consideration the availability of the corridor under short, medium and long term sale/purchase of power.

1.6.5. Unscheduled Interchange (UI)

i. Module should have support services to hedge against demand and supply risks in the unscheduled interchange (UI)/DS

1.7. Management Dashboard

1.7.1. User interface

- i. A comprehensive and scalable reporting dashboard (along with Android based Mobile Applications) will be made available to end users from various departments of JKPCL, which covers all key parameters of EPM operation/modules. This would be a dynamic and integrated part monitoring tool pertaining to operational/performance parameters of EPM.
- ii. Reports will be dynamically configurable based on the User Access.
- iii. The system would provide web based reporting tool which can be used for creating custom reports as required by different types of users.
- iv. Reports would be exportable to various formats like xls, csv, pdf and xml. Standard report templates should be provided along with the application package.
- v. Reports would be graphical or tabular or both with images and logos of customer.
- vi. The authenticated users in the web should be able to generate reports based on date range, utility etc. Reports should be both in graphical and tabular formats.
- vii. The daily report should mainly consist (but not limited to) the following:
 - a. Highlights of the Day Morning / Evening peak demand/Unrestricted demand of JKPCL.
 - b. Details of energy supply of JKPCL with source wise availability. The data for last year should also be displayed.
 - c. Station wise daily/ monthly/yearly generation and PLF/PAF of each station of the thermal unit of CGS, SGS, CPPs and IPPs with last year comparison and from Renewable Energy Sources.
 - d. Details of station wise daily /monthly/yearly generation of hydel / ISGS / IPPs units with comparison to last year.
 - e. 15 minute time block wise station wise generation of all SGS / IPP / ISGS / RES (Renewable Energy Source) generators,
 - f. Details of 15 minute time block wise comparison of Entitlement and Schedule Drawl of JKPCL, J&K.
 - g. Details of energy purchased / banking / sale by JKPCL through bilateral / collective (LTOA/MTOA/STOA).
 - h. Details of District wise supply hours to various categories as per SLDC requirement.
 - i. The Outage, back down particulars (block wise MW, MU) in Unit wise / Station wise.
 - j. Reports related to Deviation Settlement Mechanism to be published based on SCADA (for daily use) and SEM.
 - k. System should be able to capture each revision from NLDC and/or any RLDCs as per the case may be.
 - 1. System should capture import and export capacity of each region.
 - m. System should capture ATC, TTC and TRM of each Inter-State corridors.

- n. System should also be able to capture short term margins available for each Inter-State corridors.
- o. System should be able capture the availability of the corridor under short, medium and long term sale/purchase of power.
- p. System shall be able to capture short term contract from RLDC website.
- q. User Interface should be created to enter the LTOA, STOA and MTOA contract from PPA provided by JKPCL.
- r. The system shall be able to capture all parameters (including volume and price) mentioned in the PPA.
- s. The system shall have the facility to capture the Renewable contracts.

1.8. Training

1.8.1. Domestic Training

The Firm shall provide requisite Training and Experience sharing to JKPCL's Engineers/staff posted in the Power Management Cell/ SLDC Engineers in various sessions as per convenience of JKPCL at Jammu/ Srinagar/ New Delhi (NCR)/ online. Each training session would be for 10-15 participants and the sessions would be limited to 4 (four) per year. Facilities for training like training hall, study material, faculty, snacks, tea, lunch etc. would have to be arranged by the Firm, the lodging, boarding and conveyance would be borne by the participants.

1.8.2. International Training

In order to understand international best practices in the area of Energy Portfolio Management, officials (key operational staff and policy makers) shall be provided training in European/US Electricity Markets. The said international programme shall be limited to 5 officials from JKPCL along with officials from PFCCL. Total duration of the programme shall be limited to 7 days (including journey). Such training session shall be limited to 1 (one) in the assignment period.

1.9. Scope of Services of RTM Integration

1.9.1. Assisting JKPCL in operating 24x7 RTM/trade desk is summarized below:

i. RTM/Intra-day Schedule Dispatch Model

- a. The model would generate Intra-day/Real-time optimized dispatch by considering the following:
 - Intra-day Supply Availabilities
 - Intra-day forecast
 - RTM cleared volumes/forecasted prices
 - Technical inputs such as ramp-up, ramp-down, technical minimum etc.
 - Cost inputs such as variables costs, start-up costs, compensation costs etc.
 - Transmission and other constraints
- b. The model would be automated to readily take input data to generate optimized schedules along-with every RTM session (minimum 48 times in a day)

- c. The model would produce the following reports
 - Intra-day/Real-time surplus/deficit positions
 - Intra-day/Real-time buy/sell positions in RTM
 - Intra-day/Real-time optimal generation dispatch after incorporating RTM market schedules
 - Scheduled Power-cut reports (as per requirement)

ii. RTM Price Forecasting

- a. Model would be developed to generate the market price forecast for each RTM session going forward
- b. A total of 48 RTM price forecasts would be generated during a day
- **c.** The RTM price forecasts would consider the following:
 - Historical MCP data
 - Shortage and surplus of power region wise.
 - Generation data region wise

iii. Market Integrator Dashboard

- a. This would be an integrated dashboard combining the real-time supply availability assessment with demand forecast and RTM market statistics including:
 - Intra-day availability
 - Demand forecast
 - Surplus deficit positions and Deviations
 - RTM volumes and prices cleared in previous delivery period
 - Dispatch Optimizer run results for advice on sale/purchase of power
 - Cleared Quantum and Prices
- b. Dispatch Schedules for Intra-State/Inter-State generation after accommodating RTM schedule
- c. This would be a web-based and android mobile application hosted dashboard
- d. All the reports would be archived to create historical database and would be downloadable in Excel/PDF/csv formats.

iv. Bid Process Management

- a. The module would include the automated and integrated process management of all the bidding activities including the analysis, preparation of bids, approval and submission of bids.
- b. This module would be directly integrated with Power Exchange Portals for automated submission of bids.
- c. The module would maintain audit trail to ensure transparency in the bidding process and for record-keeping

v. Additional IT integration and upgrade

a. Additional IT work required to integrate RTM with other modules of Demand Forecasting, Supply Availabilities, Dispatch Optimization and DSM Analysis Dashboard and databases

- b. APIs for communication with SCADA, SLDC/RLDC and RTM clearing platforms.
- **1.9.2.** Following activities shall be covered under the 24x7 RTM/Trade Desk Operations:

i. Market Integrator Dashboard

Dashboard which will integrate all Markets (GDAM, DAM, MBED, TAM, RTM, URS etc.) with all the relevant data on bid/traded volumes, prices at one place such that net schedules from markets can be communicated for Generation Dispatch.

ii. Bid Process Management Dashboard

Automated and integrated process management of dashboard available through web based application for all the bidding activities including the analysis, preparation of bids, approval and submission of bids.

iii. **RTM Price Forecast**

RTM session wise price forecast for the upcoming sessions in a day considering historical MCP, market demand and supply trends

iv. Intra-day Dispatch Schedule

- a. Requisition of power surplus/surrender from all power portfolio for cost optimization
- b. Dispatch schedule Generation based on economic merit order dispatch
- c. Back down and surrender request based on forecast for blocks going forward on a rolling basis

v. Shift Report

RTM Details of power traded across the shift in respective delivery period in the form of quantum traded and unit price of each trading block.

All the license(s)/ software required for the carrying out various activities as per the scope of work shall be arranged by the Firm and the cost of such license/ software shall be borne by the Firm.

2. Deliverables and Schedule of Completion

The Consultant would share various required report templates with PFCCL for their approval before customizing the system to meet the reporting requirements of PFCCL/JKPCL.

2.1. Following milestones will be followed for proposed services:

| S.No. | Milestones (T - Effective Date of Contract) | |
|-------|---|--|
| 1 | Project Planning, Development and Go-live phase | |
| 1 (a) | Requirement Specification Signoff (<= T + 20days) | |
| 1 (b) | Completion of UAT (User Accepting Testing) (<= T+160days) | |

| S.No. | Milestones (T - Effective Date of Contract) |
|-------|---|
| 1 (c) | Project Go-Live (<= T+ 180days) |
| 1 (d) | Completion of Training (<= T+200days) |

3. Eligibility Criteria

- i. The Bidder should be registered in India. Copies of PAN, GST, Certificate of Incorporation/registration must be enclosed.
- ii. The Bidder must have undertaken at least 5 consultancy assignments in last 5 years (i.e. FY 2016-17 onwards) related to India Power Sector.
- iii. The Bidder shall have a Minimum Average Annual Turnover (MAAT) of Rs.20 (Twenty) Crores considering the last three financial years (FY 2018-19, FY 2019-20 and FY 2020-21). The Bidder shall submit Certificate from the statutory auditor/ audited Balance sheet and P&L account.
- iv. The Bidder should have undertaken an assignment for providing short/ medium/ long term energy planning/ load or demand forecasting/ Energy Portfolio Management to atleast 1 power sector utility in India in the last five years (i.e. FY 2016-17 onwards). Any ongoing projects of such nature would also be considered.
- v. The Bidder, its subsidiaries and/orits associates should not be having a valid power trading licensee as per Indian Electricity Act 2003, as on date of Bid submission. The Bidder shall submit the undertaking for the same.
- vi. Only sole bidder is allowed. No consortium with any other firm(s) is allowed.

Bidders who do not meet the above criteria shall not be evaluated further in the bidding process.

A Bidder shall be disqualified if it is determined by PFCCL at any stage of bidding process that the Bidder has made misleading or false representation in the form, statements and attachments in the proof of the qualification requirements. The Bidders shall also be disqualified if it fails to continue to satisfy the Qualifying Criteria during any stage of the evaluation process.

Clarifications/Supplementary information/ documents regarding QR may be sought from the Bidders by PFCCL.

4. Period of Engagement

The period of engagement would be **36 (Thirty Six) months** from the zero date as defined in contract. The period of engagement may be extended on mutually agreed terms.

5. Basis of Offer

i. Bidders shall quote prices in INR. The price offer for the Assignment should be quoted on a lump sum basis as may be applicable. No escalation for any reason whatsoever shall be allowed over and above the bid price. However, GST at applicable rates, if any, shall be paid over and above the bid price (price to be quoted as per **Form-6**).

- ii. Income tax at source and GST TDS (if applicable) will be deducted by PFCCL as per the applicable law and regulation and TDS certificate shall be issued to the selected bidder by PFCCL.
- iii. The bidder shall quote prices taking into consideration of the complete scope of work, any item left out and not specifically mentioned but are required for completion of the work shall be carried out by the bidder without any additional cost to PFCCL.
- iv. The financial proposal with condition(s) or alternate price bid will be summarily rejected.

6. Team Composition

6.1 The Educational Qualification of the key staff professional by sub-consultant shall be as follows:

| S. No. | Team Composition | Role /Required Qualifications / Experience | Number of persons |
|-----------|---|---|----------------------|
| 1. | Project Manager, Power Sector Expert | Role: Full time dedicated role Minimum Qualification - B.Tech / MBA/ CA or equivalent Minimum Experience of 8 Years in working with Power Sector Utilities. The power sector expert should have executed/ managed at least 3 projects in the area of power distribution/ power generation/ regulatory / load forecasting/ energy portfolio management/ power purchase/sale in last 8 years | 1 |
| 2. | Domain Experts | Role: Full time dedicated role Minimum Qualification – B.Tech/MCA/MBA/ CA or equivalent Experience in Demand/ Supply Forecasting, Energy Planning & Optimization/ Regulatory, Power markets, Energy Trading Strategy design & Energy Portfolio Risk Management Min. Experience: 2 years | 2 |
| 3. | RTM Managers | Minimum Qualification - B.Tech/ MBA/ CA or equivalent Relevant Experience: Relevant experience in Power Markets, Energy Trading and Energy Portfolio Risk Management, Operations of Power Exchanges. | 4 |

The CV of the proposed staff should clearly stipulate the details in respect of years of experience, details of relevant projects undertaken, educational qualification, working experience, etc.

Proposed staff may be posted in Jammu & Kashmir as per the requirement of JKPCL/PFCCL.

7. Submission of Bid

The bid shall consist of two parts "Technical Proposal" and "Financial Proposal and should be duly submitted online using the GeM Portal <u>https://gem.gov.in</u>before the due date and time.

Note:

- a. The Bidder should agree to the entire scope of work and deliverables (given in the Covering Letter **Form-1**). No proposal for deviation/ part scope of work will be considered.
- b. The Technical Proposal should contain **Form-1**, **Form-2**, **Form-3**, **Form-4**, **Form-5**, **Form-7and Form-8** duly filled and signed by authorized signatory and authority letter as per Form-5.
- c. Details of past experience are to be provided in Technical Bid as per format provided at **Form-2**. Documentary evidence (e.g. Copy of work Order/Letter of Award/LoI or any other representative documents etc./ proof of satisfactory completion for assignments handled from their Clients to the satisfaction of PFCCL) to be provided in support of past experience.
- d. Adequacy of the proposed Methodology and work Plan in responding to the Scope of Work as per **Form-7**.
- e. The Forms mentioned above along with relevant documents, including covering letter will form part of tender documents. Each of the above Forms and also other documents to be submitted as per the bidding documents are to be duly signed on each page and stamped as required by the authorised representative of the bidder, which shall constitute the bid.
- f. The **"Financial Proposal"** should contain the detailed price offer for the consultancy services as per format provided at **Form-6** of the Bid Document.

8. Bid Opening and Evaluation of Proposals

8.1. Opening of Technical Proposal

The Technical Proposal will be opened online on **February 4, 2022 at 1530 hrs (IST)** in the presence of the authorized representatives of the bidders, who wish to be present.

8.2.7. Technical Proposal

The Technical proposal would be opened online and seen and checked for responsiveness check as per following:

i. Responsiveness check

The check will be with respect to the following:

- a. The Technical Proposal should contain **Form-1**, **Form-2**, **Form-3**, **Form-4**, **Form-5**, **Form-7**, **Form-8** duly filled and signed by authorised signatory and authority letter as perForm-5.
- b. The Bidder should agree to the entire scope of work and deliverables (given in the Covering Letter **Form-1**). No proposal for deviation/ part scope of work/conditional will be considered.
- c. The Bidder should provide details in **Form 3** and **Form 4** as per the Team Composition mentioned at Clause no 6 above.

d. The Bidder should provide Methodology and work Plan in responding to the Scope of Work as per **Form-7**.

Bid of any firm not meeting any or all the above criteria, the technical evaluation of the firm will not be carried out and the bid shall be marked non responsive.

Evaluation (100 marks)

ii. Experience of the bidders would be evaluated on the following basis for technical score (St):

| Sl. No. | Table A Criteria for Technical Evaluation | Maximum Marks |
|------------|---|------------------|
| 1 | Relevant Experience of Consulting Firm | 40 |
| (a) | Experience in consultancy assignments in last 5 years (i.e. FY 2016-17 onwards) in any power sector utility in India. 04 marks for each assignment | 20 |
| | To be evidenced by work completion certificate or any evidence of stage payment(s) excluding advance payment. | |
| (b) | Experience in implementing software for Load Forecasting / Energy Planning/ Scheduling / Trade desk support involving daily analysis of power trading (procurement/sale) in any power sector utility in India in last five years (i.e. FY 2016-17 onwards) | 20 |
| | 04 marks for each assignment <u>To be evidenced by work completion certificate or User</u> <u>Acceptance Testing Certificate or any evidence of stage</u> <u>payment(s) excluding advance payment.</u> | |
| 2 | Qualification & Competency of Proposed Staff – Key Professionals (Criteria mentioned later in the section) as indicated in the Table B | 30 |
| 3 | Business Presentation Detailed business presentation including demonstration of the functionality of the services as per the given scope of work in RFP. Note:- PPT should include similar past experience, understanding of assignment, team to be deployed with experience, methodology etc., Understanding and demonstration of the Load Forecasting Solution including efficacy of weather parameters, Demonstration of Enterprise Dashboard, Efficacy and demonstration of the optimization services proposed to be deployed for power portfolio optimization and bid management software. | 30 |

| Details of Marks allocation for Qualification & Competency of Proposed Staff: |
|---|
| Table B |

| Sl. No. | Qualification/ Evaluation Criteria | Max. 30 Marks |
|------------|---|------------------|
| 1 | Project Manager, Power Sector Expert (1 Nos)Role: Full time dedicated roleMinimum Qualification - B.Tech / MBA/ CA orequivalentMinimum Experience of 8 Years in working with | Max 12 marks |
| | Power Sector Utilities. The power sector expert should have executed/ managed at least 3 projects in the area of power distribution/ power generation/ regulatory / load forecasting/ energy portfolio management/ power purchase/sale in last 8 years | |
| | Min. Experience: 8 years= 6 Marks | |
| 2 | 3 Projects = 6 marks @ 2 marks for each project Domain Expert– 2Nos. Role: Full time dedicated role Minimum Qualification – B.Tech/MCA/MBA/CA or | Max 10 marks |
| | equivalent Experience in Demand / Supply Forecasting, Energy Planning & Optimization/ Regulatory, Power markets, Energy Trading Strategy design & Energy Portfolio Risk Management For each expert | |
| | Min. Experience: 2 years: 2 Marks, 2 to 5 years: 2 marks >5 years – 5 marks | |
| 3 | RTM Manager – 4 Nos. Role: Full time dedicated role to be operated on Shift Basis Qualification: | Max 8 marks |
| | Minimum Qualification – B. Tech / MBA/ CA or equivalent Relevant Experience: Relevant experience in Power Markets, Energy Trading and Energy Portfolio Bick Management | |
| | Trading and Energy Portfolio Risk Management, Operations of Power Exchanges. For each expert <1 year relevant experience - 1 mark | |
| | <2 years relevant experience - 2 mark for each RTM Desk Operator | |

The CV of the proposed staff should clearly stipulate the details in respect of years of experience, details of relevant projects undertaken, educational qualification, working experience, etc.

The Bidder who are responsive and obtain minimum technical score (St) of 60 out of 100 score would be technically qualified for opening of "Financial Proposal".

PFCCL may call for any clarifications/ information if required.

Financial Proposal of non-qualified Bidders at Technical Bid stage will not be opened online.

8.2. Opening of Financial Proposal

The "Financial Proposal" would be opened online only for the technically qualified bidders. The date and time of opening of the "Financial Proposal" would be intimated to the technically qualified Bidders separately. Financial Proposal will be opened online in the presence of the authorized representatives of the bidders, who wish to be present.

8.3.7. Financial Evaluation:

The financial proposals of the Bidders who qualify in the technical evaluation shall be opened in presence of those Bidders or their representatives, who wish to attend. The proposal with lowest quote shall be given a financial score of 100 and other proposals shall be given financial scores as per the formula provided below:

The lowest Financial Proposal (Fm) shall be given the maximum financial score of 100.

Financial scores (Sf) of all other Proposals shall be calculated as:

Sf = $100 \times \text{Fm}/\text{F}$, in which "Sf" is the financial score, "Fm" is the lowest price, and "F" the price of the proposal under consideration.

8.3. Selection Process:

Selection will be done under a Quality cum Cost Based System (QCBS). First bidder should fulfil qualification criteria as detailed in Eligibility Criteria.

8.3.1. Evaluation of Final Bids:

It shall entail selection of Bidder after adding scores of Technical and Financial Proposals with their respective weightage. The weights assigned to the Technical (T) and Financial (F) Proposals are 70% and 30% resp.

Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) as following:

 $S = St \times T + Sf \times P.$

The bidder with the highest score shall be selected.

9. Corrigendum

At any time before the last date of submission of bids, PFCCL may, for any reason, whether at its own initiative or in response to a clarification requested by firm (Bidder), modify the RFP document. Any Clarifications Corrigendum / posted Addendums/Amendment etc. will be on PFCCL website viz. https://pfcclindia.com/ and no individual communication will be sent. Posting on the website would be deemed as PFCCL having communicated to all prospective Bidders. The Clarifications / Corrigendum/ Addendums etc. thus communicated will form an integral part of the TENDER and succeed the relevant clauses for future reference. Such Corrigendum / Addendums/ Amendment will be binding on Bidders and they will give due consideration to the same, while they submit their Bids, and would invariably enclose documents/ information, as required, on account of the amendment, as a part of the bid. PFCCL may, at its discretion, extend the deadline for the submission of bids.

10. Integrity Pact

Bidder is required to sign the Integrity Pact with PFCCL as per format & terms and conditions enclosed with tender. The attached copy of the Integrity Pact at Form-1(I) shall be included in the Bid submitted by the Bidder. In case a Bidder does not sign the Integrity Pact, their bid shall be liable for rejection.

11. Contract Performance Guarantee (CPG)

In the event of an award, the selected firm (Firm), within thirty (30) days of issue of Letter of Award (LoA) from PFCCL, will be required to arrange submission of CPG in the form of a Bank Guarantee (BG) equivalent to 3% (three Percent) of the total consultancy fee. The Firm shall provide the name and contact details of the executives associated with the assignment. The CPG should be as per PFCCL's proforma and should be kept valid up to 42 (Forty Two) months from the Letter of Award which shall be extended till completion of the assignment, whichever is later.

12. Contract Agreement

- a. In the event of award, the selected firm ("**Consulting Agency**") will be required to enter into a Contract Agreement with the PFCCL.
- b. Formal Contract Agreement will be executed on Non-judicial stamp paper of Rs.100/- (Rupees One Hundred Only) as per the format provided by PFCCL. Two sets of Non-Judicial Stamp papers of Rs.100/- each and water mark papers to be purchased from Delhi State.
- c. The Agreement will be signed in two originals and the Firm shall be provided with one signed original Agreement
- d. The date of execution of the Contract Agreement in no case shall alter the date of start or completion period of the work.
- e. Till the time a "Contract Agreement" is prepared and executed, the LoA shall be read in conjunction with the Bidding Documents and will constitute a binding contract.

13. Validity of Bid and Bid Security

Bidders shall keep their bids /proposals valid up to 120 (One hundred Twenty) days from the date of opening of the Financial Proposal. Bidders may be required to further extend the validity of Bid as per the requirement of PFCCL.

The Bidder has to submit a Bid Security (Refundable to unsuccessful Bidders) of Rs.30,00,000/- (Rupees Thirty Lakhs only) as Demand Draft (in favor of PFC Consulting Limited) or Bank Guarantee, valid for a period of 120 days beyond the end of validity period of the bid.

14. Terms of Payment

The fee shall be payable on the following stages of the assignment:

| S. No. | Cost Head | Schedule of invoices | Remarks |
|-----------|-------------------------------|---|--|
| 1 | Consultancy Fee | Quarterly invoices• Applicable from 'T':DateofcommencementofContract | Payment to the firm will be released only after receipt of payment by PFCCL from JKPCL |
| 2 | International Training Fee | After completion of Training | |
| 3 | Software and Maintenance | Bi-Annual invoices 50% of the total amount envisaged under the head of 'Software and Maintenance' for Year 1, shall be raised on or after T+160 days 50% of the balance amount envisaged under the Head 'Software and Maintenance' for Year 1, shall be raised on or after T+360 days | |

The firm shall submit the bills in duplicate to PFCCL addressed to Competent Authority, PFCCL, indicating the stage achieved, out of the ones indicated above.

15. Travel Expenses

All travel related arrangements and expenses for the Firm's personnel related to this assignment to Jammu/ Srinagar/ New Delhi will be borne by the Firm and PFCCL will not take any responsibility whatsoever on this account.

16. Disclaimer

- a. "This tender document has been prepared by the PFC CONSULTING LIMITED (PFCCL) for "Appointment of Consultant for assisting PFCCL in services for Load/ Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir"
- b. Though adequate care has been taken while preparing the tender documents, the firm shall satisfy itself that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any firm within seven (7) days from the date of issuance of tender document, it shall be considered that the tender Documents are complete in all respects and has been received by the Bidder(s).
- c. All information submitted in response to the tender document become the property of PFCCL and PFCCL does not accept any responsibility for maintaining the confidentiality of the material submitted or any trade secrets or proprietary data contained therein.
- clarification, d. Information relating to the examination, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the PFCCL in relation to, or matters arising out of, or concerning the Bidding Process. PFCCL will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. PFCCL may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or PFCCL or as may be required by law or in connection with any legal process.
- e. In submitting a bid in response to the tender document, each Bidder certifies that it understands, accepts and agrees to the disclaimers herein. Nothing contained in any other provision of the tender document nor any statements made orally or in writing by any person or party shall have the effect of negating or superseding any of the disclaimers set forth in the tender Documents."

17. Other Terms & Conditions

- a. The financial proposal by the bidders shall be in Indian Rupees as per format enclosed (**Form-6**) with no escalation provision for any reason whatsoever till the completion of the Assignment.
- b. In order to ensure smooth operations, firm would appoint a Nodal Officer and other officials for the assignment who will provide various inputs etc. throughout the execution of the assignment.
- c. The firm shall make available appropriate 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. The work would be undertaken in Jammu, Srinagar and New Delhi only.

- d. All claims shall be raised by the firm as per the terms of payment after being due, and would be accepted for payment based on satisfactory progress and quality of the work at the sole discretion of the competent authority.
- e. In case there is a delay by the firm in accomplishing the deliverables which in the opinion of PFCCL is attributable to the Firm, PFCCL reserves the right to get such specific work(s) done through any other Agency(ies) at the risk and cost of the Firm for timely completion of the deliverables.
- f. In case the performance of the proposed team member(s) is not satisfactory, the Firm 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.
- g. PFCCL with the approval of Competent Authority, can cancel the contract at any stage of the work, in case it is found that the knowledge of a team/team member(s) and or his/her performance is not satisfactory, any information given at the time of submission of the bid is found to be incorrect.
- h. Given the nature of the work being entrusted, the 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 could be terminated.
- i. If due to any reason or decision of the Govt/ Client, the Assignment is dropped and the Firm is directed to discontinue work, the "Drop Dead Fee" would be limited to the payments received by the Firm 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.
- j. <u>Conflict of Interest</u>: Organisations would not be hired for any work whose interests are in conflict with their prior or current obligations to the other organisations/ clients 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, organisations would not be hired, under the circumstances set forth below:

Organizations who 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 taken from the organization when being engaged, and if found incorrect, the organization would be debarred from

any further engagement by PFCCL ever.

- k. The Firm shall 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 Firm, or the Firm's personnel, including the use or violation of any copyright work or literary property or patented invention, article or appliance.
- 1. No offer should be sent by Fax or E-mail.
- m. Offers received in the designated office after the due time and date mentioned above shall not be considered.
- n. 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.
- o. PFCCL shall 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.

Yours sincerely, **For and on behalf of PFC Consulting Ltd.**

(Prashant Moundekar) General Manager

Encl.: As Above

SECTION -2 BID FORMS AND PROFORMA

Page **28** of **65**

FORM-I – Covering letter

From:

| Name: Designation: | |
|--------------------|--|
| Address: | |

To: General Manager (PE – IV) PFC Consulting Ltd., 9th Floor, A-Wing, Statesman House, Barakhamba Lane, Connaught Place, New Delhi – 110001

Sir,

Sub: Assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir

- We__(Name of firm) herewith enclose Technical & Financial proposal for Assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.
- 2. The registered and correspondence address of the company are as following:
 - I. Registered Address with contact details:
 - II. Correspondence Address with contact details:
- 3. We are submitting our electronic bid consisting of:
 - i) **Technical Bid** consisting of:
 - a) The Covering Letter (Form-1) in which the firm inter alia agrees to the entire scope of work and deliverables as proposal for deviation / part scope of work will not be considered.
 - b) **Form-1, Form-2, Form-3, Form-4, Form-5, Form-7 and Form-8** duly filled and signed by authorised signatory and authority letter as per **Form-5**.
 - c) Documentary proof in support of turnover shall be submitted by the Bidder in the form of certificate certified by Chartered Accountant.
 - d) Details of past experience are to be provided in Technical Bid as per format provided at Form-2.Documentary evidence (e.g. Copy of work Order/Letter of Award/LoI/Completion certificate/ Project Report /proof of payment/ any other relevant documents etc.) to be provided in support of past experience.
 - e) Details of key personnel proposed to be deployed are to be provided in Technical bid as per format provided at **Forms-3&4**.
 - f) Letter of Authority in favour of the authorized signatory submitting the Bid as per **Form-5**.
 - g) Adequacy of the proposed Methodology and work Plan in responding to the Scope of Work as per **Form-7**.
 - ii) Price Offer should be submitted online as per format provided at Form-6 of

Section 2 of Bid document.

- 4. [Name and contact information of one of the team member] shall be the Team Leader for the assignment.
- 5. We declare that the quoted lump sum fee is firm and shall remain valid for the entire period of the consultancy assignment. We further declare that the above quoted fee includes all taxes (excluding GST), duties & levies etc. payable by us under this consultancy assignment.
- 6. We hereby confirm 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.
- 7. We confirm that the prices and other terms and conditions of this proposal are valid for a period of **120 days** from the date of opening of the Financial Proposal.
- 8. We declare that the services will be rendered strictly in accordance with the specifications. 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 for ten (10%) of the total consultancy fee in the form of bank guarantee shall be provided by us as per the prescribed format in case of placement of award.
- 9. 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 Consulting Organisation other than one mentioned herein have any interest in this proposal or in the contract to be entered into, if we are awarded this contract.
- 10. We hereby confirm and declare that neither we M/s ______ nor any of our affiliates/subsidiary company(ies), have not been suspended / black listed by any PSU / Centre or State Government Department or any other agency for which we have Executed/ Undertaken the works/ Services during the last 10 years.
- 11. 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 bidding documents.
- 12. We confirm and certify that all the information / details provided in our bid are true and correct.
- 13. We give our unconditional acceptance to the Bid Documents issued by PFCCL, and as amended. We shall execute the Contract Agreement as per the provisions of the Bid Document.
- 14. Further, we confirm that we agree to and seek no deviations from the scope of work, time schedule, deliverables, payment terms and all other terms and conditions as contained in the 'Bid Document'. The proposal is unconditional.
- 15. 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 organisations/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 organisation by whatever process and if found incorrect, we may be debarred from any further engagements by PFCCL forever.
- 16. We certify that all the information provided in our bid, including the information regarding the team members, is true. We understand that any wilful misstatement in the bid may lead to disqualification or cancellation of award if made or

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.

- 17. 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.
- 18. Further, we undertake that in the event of appointment as consultant, at least two field engineers will be posted for successful completion of the assignment.

Signature of Authorized Person Name: Designation & Company seal

Date: Place:

FORM-2: EXPERIENCE OF ORGANISATION

1. Brief Description of the Organization:

2. Outline of experience on assignments:

| Sl. No. | Name of Assignment with work order no. and date | Name(s) of member(s) associated with the assignment | Client | Date of Commencement | Date of Completion | Scope of work in brief |
|------------|---|---|--------|-------------------------|-----------------------|------------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

- 1. It is hereby certified that the above mentioned details are true and correct.
- 2. It is hereby certified that our company has actually carried out and completed the above mentioned work/assignments

Signature of Authorized Signatory

Full Name: Address:

Note:

- 1. The firm should be submitting the bid on its own and not in consortium with any other Consulting Organisation.
- 2. Please attach documentary proof for claimed experience; the proofs could be namely, Copy of work Order/Letter of Award/LoI/ work completion certificate or any other representative documents etc.
- 3. Documentary proof in support of turnover shall be submitted by the Bidder in the form of certificate certified by Chartered Accountant along with copy of audited annual accounts for the relevant years for meeting minimum turnover criteria.

FORM-3: COMPOSITION OF TEAM

| S.No. | Name | Proposed Position |
|-------|------|-------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |

Signature of Authorized Signatory Full Name: Address:

Note:

1. It is mandatory to enclose curriculum vitae for each member of team as per Form-4 highlighting the description of the relevant experience for the assignment, number of years of relevant experience, educational qualifications, etc.

FORM-4: CURRICULUM VITAE FOR EACH MEMBER OF CONSULTANT'S TEAM

Name:

Profession/ Present Designation:_____ Total post qualification experience:_____Years with organization:_____

Educational Qualification:

(Under this heading, summarise college/ university and other specialized education of staff member, giving names of colleges, etc. degrees obtained.)

(*Please enclose attested copy of educational qualifications*)

Experience:

(Under this heading, list of positions held by staff member since graduation, giving dates, names of employing organisation, title of positions held, description of the relevant experience and location of assignments.)

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 wilful misstatement described herein may lead to disqualification of the Consulting Organisation.

Signature of Team member

Full Name:

Date:

Signature of Authorized Signatory

Full Name: Date:

FORM-5: AUTHORISATION LETTER

(ON THE LETTER HEAD OF THE CONSULTING ORGANISATION)

I ______ certify that I am ______ of the firm, 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: (Seal)

FORM-6: SCHEDULE OF PRICE BID

Sub: Assistance to PFC Consulting Limited (PFCCL) in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.

I ______(Name) on behalf of ______(Name of thefirm) herewith submit the Financial Proposal for assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.

| S. No. | Description | Unit (in Rs.) | Total Lump Sum Price in INR (In Words Also) |
|--------|----------------------------|------------------|--|
| 1. | Consultancy Fee | Lump sum fee | |
| 2. | International Training Fee | Lump sum fee | |
| 3. | Software and Maintenance | Lump sum fee | |
| 4. | Total Fee | | |

Note (Not to be deleted in financial proposal):

- 1. The Total Fee should be quoted on lump sum basis for the entire scope of work for the total period of assignment (36 months from zero date). No escalation for any reason whatsoever shall be allowed over and above the bid price till completion of the assignment. GST at applicable rates, on the date(s) of payment(s) shall be paid over and above the Total Fee.
- 2. The Consultancy Fee at S No 1 of the table above shall include manpower, software, license, domestic training etc.
- 3. The International Training Fee would only be released upon completion of the international training as per the scope.
- 4. Income tax at source and GST TDS will be deducted by PFCCL as per the applicable law and regulation and TDS certificate shall be issued to the consultant by PFCCL.
- 5. All related travel expenses incurred by the Consultant's personnel for journeys to site or Client's Office or anywhere in connection with the consultancy services/study under Scope of this assignment will be borne by the Consultant and PFCCL will not take any responsibility whatsoever on this account.
- 6. The financial proposal with condition(s) or alternate price bid will be summarily rejected.

Authorised Signatory Full Name: Address: Seal

FORM-7: THE PROPOSED METHODOLOGY AND WORK PLAN

Bidder's Name & Address To General Manager PFC Consulting Ltd., 9th Floor, A-Wing, Statesman House, Barakhamba Lane, Connaught Place, New Delhi – 110001

Dear Sir,

We hereby enclose a brief write up on the proposed methodology to be adopted for assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.

- i) Approach Methodology and Work Plan, Time Schedule in responding to scope of work and deliverables
- ii) Resources available for performing the assignment.
- iii) Key Personnel and their task for Completing the Assignment

Additionally, we hereby undertake to make a detailed presentation including live demonstration of the functionality of our services in respect of the following:

- i) Understanding and demonstration of the Load Forecasting Solution including efficacy of weather parameters
- ii) Demonstration of Enterprise Dashboard
- iii) Efficacy and demonstration of the optimization services proposed to be deployed for power portfolio optimization and bid management software.

Authorized Signatory: Full Name: Address: (Seal)

FORM-8: UNDERTAKING

(To be submitted on the Bidder's letter head)

(FORMAT OF UNDERTAKING TO BE FURNISHED WITH REGARD TO POWER TRADING LICENSEE AS PER INDIAN ELECTRICITY ACT 2003)

We hereby confirm and declare that neither we M/s ______ nor any of our affiliates/subsidiary company(ies), are not be having a valid power trading licensee as per Indian Electricity Act 2003, as on date of Bid submission.

Signature Name (Authorized Signatory of Bidder)

Date (Company Seal)

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FORM-9: PROFORMA FOR BANK GUARANTEE FOR CONTRACT PERFORMANCE

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT) The non-judicial stamp paper should be in the name of issuing bank

Ref. No.

Bank Guarantee No..... Date.....

To,

PFC Consulting Ltd. 9th Floor, A-Wing, Statesman House, Barakhamba Lane, Connaught Place, New Delhi – 110001 Dear Sirs, In consideration of the PFC Consulti

In consideration of the PFC Consulting Limited (hereinafter referred to as the 'Owner' which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns) have awarded to M/s..... with its Registered/Head Office

at.....(hereinafter referred to as the 'Consultant' by issue of Owner's Letter of Award No

We(name and address), having its Head Office at..... (herein after referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Owner, on demand any and all monies payable by the Contractor/Consultant to the extent of.....as aforesaid at any time upto......(days / month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor/Consultant any such demand made by the Owner on the Bank shall be conclusive and binding notwithstanding any difference between the Owner and Contractor/Consultant or any dispute pending before any court, tribunal or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee herein contained shall continue to be enforceable till the Owner discharges this guarantee. The Owner shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the contract by the Contractor/Consultant. The Owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the contractor/consultant, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Owner and the Contractor/Consultant or any other course of or remedy or security available to the Owner. The Bank shall not be released of its obligations under these presents by any exercise by the Owner of its liberty with reference to the matters aforesaid or any of them or by reason of any other acts of omission or commission on the part of the Owner or any other indulgence shown by the Owner or by any other matters or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor/Consultant and notwithstanding any security or other guarantee that the Owner may have in relation to the Contractor/ Consultant liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to.....and it shall remain in force upto and including and shall be extended from time to time for such period, as may be desired by M/s..... whose behalf this guarantee has been given.

| Dated this Day of WITNESS: Bank) 1. | atatat |
|--|--|
| (Signature) | (Signature) |
| | (Name) |
| (Official address) Stamp) | (Designation with Bank |
| | |
| | Attorney as per Power of Attorney No/ Signature no. |
| | Dated |
| | |
| | |
| | |
| | |
| | |

| 2. |
|--------------------|
| (Signature) |
| (Name) |
| (Official address) |

Note: This sum shall be three percent (3% of the total Contract Price)

The CPG should be as per PFCCL's proforma and should be kept valid upto 48 (Forty Eight) months from the Letter of Award which would be extended till completion of the assignment, whichever is later. The stamp paper of appropriate value shall in the name of Bank issuing the guarantee.

PRE-CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the integrity Pact) is made on day

of the month of and year of, between on one hand, the Chairman & Managing Director acting through Shri, Designation of the executive, Unit of PFC Consulting Limited (hereinafter called the "BUYER" which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s represented by Shri , Chief Executive Officer(hereinafter called the "BIDDER/Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure (Name of the Stores/Equipment/item) and the Bidder/Seller is willing to offer/has offered the stores and

Whereas the Bidder is a private company /public company/ Government undertaking/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is a Ministry/ Department of the Government of India/PSU performing its functions on behalf of its Chairman & Managing Director.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the Buyer to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this integrity Pact and agree as follows:

1. Commitments of the Buyer

1.1. The Buyer undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the Contract.

- 1.2. The BUYER will, during the pre-contract stage, treat all BIDDERs alike, and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.
- 1.3. All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Buyer the proceedings under the contract would not be stalled.

3. Commitments of Bidders

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

- 3.1 The Bidder will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.
- 3.2 The Bidder further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the Government.
- 3.3 BIDDERs shall disclose the name and address of agents and representatives and Indian BIDDERs shall disclose their foreign principals or associates.
- 3.4 BIDDERs shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5 The Bidder further confirms and declares to the Buyer that the Bidder is the original manufacturer/ integrator/ authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder, nor has any amount been paid, promised or intended to be

paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

- 3.6 The Bidder, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the Buyer or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 3.7 The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The Bidder shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly with any employee of the BUYER.

4. Previous Transgression

- 4.1 The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify Bidder's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Bid Security (Earnest Money

5.1 The Bidder has submitted a Bid Security (Refundable to unsuccessful Bidders) of Rs. 30,00,000/- (Rupees Thirty Lakhs only) as Demand Draft, DD No....., issue Bank....., Date of Issue.....or Bank Guarantee BG No....., issue Bank....., Date of Issue...., valid for a period of 120 days beyond the end of validity period of the bid.

5.2 In the case of successful Bidder a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

6. Sanctions for Violations

- 6.1 Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder) shall entitle the Buyer to take all or any one of the following actions, wherever required:-
 - I. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.
 - II. The Earnest Money deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign any reason therefore.
 - III. To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.
 - IV. To recover all sums already paid by the Buyer, and in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - V. To encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Buyer, along with interest.
 - VI. To cancel all or any other Contracts with the Bidder. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- VII. To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the Buyer.
- VIII. To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
 - IX. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the Buyer with the Bidder, the same shall not be opened.
 - X. Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and conclusive on the Bidder. However, the Bidder can approach the independent monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

7.1 The Bidder undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/ Department of the Government of India or PSU and if it is found at any stage that the similar products/ systems or sub-systems was supplied by the Bidder to any other Ministry/ Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Buyer, if the contract has already been concluded.

8. Independent Monitors

- 8.1 The Buyer has appointed Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission (Name & Addresses of Monitors to be given).
- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/ procurement, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Buyer including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractors(s) with confidentiality.
- 8.7 The BUYER will provide to the Monitor Sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of BUYER/Secretary In the department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER/ BIDDER and should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of investigation

IN case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

11. Other Legal Actions

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

12. Validity

- 12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/ Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive, to come to an agreement to their original intentions.

| 13. The | parties | hereby | sign | this | integrity | Pact | at | on |
|----------------|---------|--------|------|------|-----------|------|----|--------|
| | | | | | | | | |

| BUYER |
|---------------------|
| Name of the officer |
| Designation |
| PFC Consulting Ltd. |
| 0 |

.....

| | BIDDER |
|-----------------|-----------|
| CHIEF EXECUTIVE | E OFFICER |

Witness

1.

... 2. Witness 1.

| ••••• | | | | | |
|-------|---|------|------|------|--|
| •••• | | | | | |
| | 2 | | | | |
| | | | | | |

*Provisions of these clauses would need to be amended /deleted in line with the policy of the BUYER in regard to involvement of Indian agents of foreign suppliers.

FORM-10: 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 _____2020, 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 "Owner" (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 itsregisteredofficeat______

hereinafter called the 'Consultant' (which expression shall unless repugnant to the context or the meaning thereof include its successors and permitted assigns)

WHEREAS the Owner is in the process of selection of a firm for Assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir." (hereinafter to be referred as Project)

AND WHEREAS the Owner 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 Package" for the Project.

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

AND WHEREAS based on above representations of the Consultant, the Owner 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 Owner and the Consultant.

- (c) "Consultant" means <u>Company/firm</u>.
- (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 3.1hereof;
- (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 Owner or the Consultant, as the case maybe;
- (h) "Contract time" means the duration of time of the Contract as referred to Clause3.
- (i) "No claim Certificate" means certificate issued by the Owner 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 Owner to the Consultant has been made.
- (j) "Project" means "Assisting PFCCL in services for Load / Demand Forecasting, Power Purchase Cost Optimisation and Energy Portfolio Management of J&K Power Corporation Ltd (JKPCL) of Jammu & Kashmir.".
- (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 Awardhereto;
- (I) "Starting Date" means the date referred to in Clause 3.3 hereof;
- (m) "Third Party" means any person or entity other than the Owner, the Consultant or his Sub- consultant.
- (n) "Zero Date" means any Letter issued by PFC Consulting Limited to Consultant.
- LOCATION FOR PERFORMANCE OF THE SERVICES:
- (a) The Consultant shall render/perform services at **Jammu**, **Srinagar**, **and Delhi**.
- (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 Owner from time to time. The Ownershall 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

2.0

This contract shall come into force from the date ("effective date") on which the Owner 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 Owner has the right to declare the same to be null and void, and in the event of such a declaration the consultant shall not have any claim against the Owner.
- b) In case the contract is rendered null and void on account of failure/inaction on

the part of the consultant, the consultant shall be liable to pay damages to the Owner.

3.3 Commencement of Services

The Consultants shall 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 shall expire after the consultant has performed all his Services as per the terms and conditions envisaged in this Contract and the Owner has issued a 'No claim Certificate' to the Consultant.

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

4.0 CONTRACT PERFORMANCE GUARANTEE

- 4.1 The Consultant within 30 days from the date of issue of Letter of Award shall 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 shall be equal to ten percent (10%) of the contract price in accordance with the terms and conditions specified in the contract and in the Bid Documents. The guarantee shall be valid until after expiry of a period of 6 months from the date of issue of No Claim Certificate by the Owner.
- 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 shall 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 and consulting standards recognized by professional bodies, and shall 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 shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Owner, and shall at all times support and safeguard the Owner'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 shall 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

The consultant shall hold the Owner's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their corporate interests.

5.4 Benefit from Commissions, Discounts etc.

Payment to the Consultant shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall 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 shall 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 Owner shall be entitled to disqualify such Consultant or the Sub Consultant or any of their Personnel from providing services to the Owner and further claim damages for breach.

5.6 **Prohibition of Conflicting Activities**

The Consultant shall not engage, and shall 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 shall take out and maintain, and shall 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) shall be jointly and severally liable to the Owner for the performance of the Services under this Contract and further for any loss suffered by the Owner as a result of a default of the Consultant or his members in such performance, subject to the following limitations:

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

5.9 Consultant Action Requiring Owner's Prior Approval

The Consultant shall obtain the Owner'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 terms and conditions of such appointment;

5.10 **Reporting Obligations**

The Consultant shall submit to the Owner 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 Owner.

5.11 Documents Prepared by the Consultants to Be the Property of the Owner

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

5.12 Office at Delhi

Firm should have an office in Delhi NCR and should be available within an hour time for any discussion, meeting, presentation etc, as per the requirement.

6.0 CONSULTANT'S PERSONNEL

6.1 Agreed Personnel

The Consultant hereby agrees to engage the personnel in order to fulfill his contractual obligations under this contract.

6.2 General

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

6.3 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 Owner, provided:
 - (i) that such adjustments shall 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 shall not cause payments under this Contract to exceed the ceilings set forth in **Clause 8** of this Contract. Any other such adjustments shall only be made with the Owner'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 Awardmay be increased by agreement in writing between the Owner and the Consultants, provided that any such increase shall not, except as otherwise agreed, cause payments under this Contract to exceed the ceilings set forth in Clause 8 of this Contract.

6.4 Removals and/or Replacement of Personnel

a) Except as the Owner may otherwise agree, no changes shall 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 shall forthwith provide as a replacement a person of equivalent or better qualifications.

- b) If the Owner:
 - 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 shall, at the Owner's written request specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the Owner.
- c) The new personnel provided as a replacement shall be governed by the same the terms and conditions of employment as the replaced personnel.
- d) The Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement.

7.0 OBLIGATIONS OF THE OWNER

In consideration of the Services performed by the Consultants under this Contract, the Owner 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 **Letter of Award**.

8.2 Mode of Payment

Payments will be made by the Owner 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 shall submit the bills in **duplicate** to the Owner on printed bill forms indicating the work done by him during the period for which payment is sought.
- 8.4 The Owner shall cause the payment of the Consultant as per the above given schedule of payment of the receipt of the bills raised along with supporting documents after receiving payment from JKPCL. However, it is agreed between the parties that the Owner 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 shall 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 shall be made to the account of the Consultants with: Account No._____ Bank Name_____

8.7 **PENALTY AND INCENTIVE**

The performance criteria and associated penalty for the purpose of Load Forecasting shall be as below

- i. To ensure that the Deviation in Accuracy rate of load forecasting doesn't exceeds by more than 4% for intra-day forecast.
- ii. No penalty will be applicable on PFCCL for T+180 days where T is the effective date of contract.
- iii. Penalty shall be applicable on the Consultancy Fee cost equated in equal monthly installments for a period of 36 months. Accordingly, the deduction shall be

applicable as per below provisions of the specific month and deducted from the monthly invoice of PFCCL.

- iv. The monthly payment schedule will be subjected to penalty as depicted below:
 - 1. PFCCL has to meet the performance criteria for the Intra-Day forecasts in order to avoid deductions i.e. less than 4% deviation intra-day forecast.
 - 2. For the purpose of deviation calculations, the following report shall be considered:
 - a. The Intra-Day forecast reports would be provided every two hours for the balance blocks in a day "D". Thus a total of 12 Intra-Day forecasts reports would be generated for the day "D". For example, the first Intra-Day forecast report would be generated at 2200 Hrs. of the previous day "D-1" containing the block-wise forecast for 0000-2400 Hrs. of day "D", the second Intra-Day forecast report would be generated at 0000 Hrs. of day "D" containing the block-wise forecasts for 0200-2400 Hrs. of day "D" and so on.

From each Intra-Day forecast report, the forecasts for first 8 time-blocks (2 hours) would be considered for deviations calculations. *For example, from the first Intra-Day forecast report, the forecast for 8 time-blocks between 0000-0200 Hrs. would be considered for deviations calculation. Similarly, from the second Intra-Day forecast report, the forecast for 8 time-blocks between 0200-0400 Hrs. would be considered for deviations calculations.*

- 3. The deviation metric Intra-Day forecast error would be as per the following:
 - a. The performance metric for Intra-Day deviation calculations would be Mean Percentage Error (MPE).
 - b. At the end of day "D", the % Error for each block would be calculated by taking the value of deviation divided by the actual demand of the block.
 - c. The average of the % Errors for all block for day "D" would be netted to obtain the MPE for the day "D".
 - d. The daily MPEs would be taken for netting to obtain the weekly, fortnightly and monthly MPEs for the application of penalties.

Formula for calculating Intra-Day Forecast Error-

$$\frac{100\%}{n} \sum_{1}^{n} \frac{1}{96} \left(\sum_{i=1}^{96} \frac{(A_i - F_i)}{A_i} \right)$$

Where,

- Ai = Actual Demand for the time-block 'i' in MW
- Fi = Forecasted Demand for the time-block 'i' in MW N = no. of days- 14 for fortnightly calculations, 7 for weekly
- calculations; no. of days in the months for that particular month

i = 15-minute time-block number

- 4. In case the performance criteria is not satisfied, deductions would be applicable. For deductions calculation purpose, the deductions for Intra-day forecast would be calculated separately as per the following:
 - a. In case of Intra-Day Demand Forecast, for each 0.5% change in average accuracy rate of demand schedule forecasting, there will be incremental deduction of additional 4% upto maximum 20% as mentioned in the following table:

| S. No. | Particulars | % Deduction during the Project Execution Phase (R) | | | | |
|--------|--|---|--|--|--|--|
| А | Deviation level in Demand schedule forecasting accuracy leve | | | | | |
| | upto 1.5% | 0% | | | | |
| | More than 1.5% upto | 4% | | | | |
| | 2.0% | | | | | |
| | More than 2.0% upto | 8% | | | | |
| | 2.5% | | | | | |
| | More than 2.5% upto | 12% | | | | |
| | 3.0% | | | | | |
| | More than 3.0% upto | 16% | | | | |
| | 3.5% | | | | | |
| | More than 3.5% upto | 18% | | | | |
| | 4.0% | | | | | |
| | More than 4.0% | 20% | | | | |

Table 3: Intra-Day Forecast Deduction Calculation

- v. The above mentioned deductions (if any) at different milestones shall be made on monthly basis.
- vi. For deviation level in accuracy of demand schedule forecasting exceeding 4.0% for the Intra-Day Forecast shall attract issuance of a show cause notice by JKPCL and continuous deviations observed for more than three consecutive months might lead to the termination of contract, which would solely be on the discretion of JKPCL.
- vii. Further, the Penalty clause shall not be applicable in case of applicability of any condition under Force Majeure (Act of God, Direct or indirect Political/ non-political events, civil war, pandemic, epidemic etc.), unplanned outages, feeder tripping, lack or inaccuracy of SCADA data, etc.
- 9.0 INCENTIVE:

PFCCL and firm will mutually decide the amount of incentive on achievement of performance standards.

10.0 SUSPENSION

The Owner 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) shall specify the nature of the failure, and (ii) shall 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.

11.0 TERMINATION

11.1 By the Owner

- (a) The Owner 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 Owner 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 Owner 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 Owner a statement which has a material effect on the rights, obligations or interests of the Owner 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 Owner, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

11.2 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 16hereof,
- (c) any right which a Party may have under the Applicable Law.

11.3 Cessation of Services

Upon termination of this Contract by notice to pursuant to Clauses 10 hereof, the Consultants shall, 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 shall make every reasonable effort to keep expenditures for this purpose to a minimum.

11.4 Payment upon Termination

Upon termination of this Contract pursuant to **Clause-10** hereof, the Owner 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.

12 FORCE MAJEURE

12.1 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 shall 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.

12.2 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.

12.3 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.

12.4 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.

12.5 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.

13 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.

14 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.

15 FAIRNESS AND GOOD FAITH

15.1 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.

15.2 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.

16 TAXES AND DUTIES/CHANGE IN LAW

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

17 CONFIDENTIALITY

The Consultant, their Sub-consultants and the Personnel of either of them shall 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 Owner's business or operations without the prior written consent of the Owner.

18 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.

19 SETTLEMENTS OF DISPUTES/ARBITRATION

- **19.1** The parties shall endeavor 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.
- **19.2** 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.

20 GENERAL PROVISIONS

20.1 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.

20.2 Headings

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

20.3 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, or facsimile to such Party at the following address:

1. For the Owner: PFC Consulting Limited

(A Subsidiary of Power Finance Corp. Ltd.) 9thFloor, A-Wing, Statesman House, Barakhamba Road, New Delhi - 110001 Attention: Mr.____ Facsimile: 011-

2. For Consultants:

Attention: Facsimile:

Email:

20.4 Notice will be deemed to be effective as follows:

- in the case of personal delivery or registered mail, on delivery; (a)
- in the case of facsimiles, forty eight (48) hours following confirmed (b) transmission.
- 20.5 A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to this Clause.

20.6 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 Owner under this Contract, including without limitation the receiving of instructions and payments from the Owner.

20.7 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 Owner by______ or his designated representative;
- b) on behalf of the Consultant by ______ or his designated representative;

20.8 WAIVER OF RIGHT

The failure of either party to enforce at any time or for any period of time, the provisions he reof 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.

20.9 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.

20.10 This Agreement may be executed in any number of counterparts which together shall 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 [OWNER]

By: Authorized Representative FOR AND ON BEHALF OF [CONSULTANTS] By: Authorized Representative

LIST OF APPENDICES

A. Letter of Award