# No.: CEA/PLG/PS&LF/1/19<sup>th</sup> EPS/2015/ DATED: 17.10.2016

# E-BID DOCUMENT FOR

# 19th Electricity Demand forecast of India (Econometric Method)

# MINISTRY OF POWER

# CENTRAL ELECTRICITY AUTHORITY, 2<sup>nd</sup> FLOOR, SEWA BHAWAN, R. K. PURAM NEW DELHI-110066

Tele: +91-11-26105546

http://cea.nic.in

October, 2016

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# **Checklist for Bid Submission**

The following check-list must be filled in and submitted with the bid document.

	inical Bid		
S1. No.	Particulare		
1.	Have you uploaded the scanned copy of Checklist for bid submission duly filled and signed?	Yes	No
2.	Have you uploaded Prequalification Documents as per Annexure-I?	Yes	No
3.	Have you uploaded the scanned copy of Bidder Information duly filled and signed as per <i>Annexure-II</i> ?	Yes	No
4.	Have you uploaded Bid/Bid Acceptance Letter as per Annexure-III?	Yes	No
5.	Have you uploaded the scanned copy of Schedule of deviation duly filled and signed as per <i>Annexure-IV</i> ?	Yes	No
6.	Have you uploaded the scanned copy of Details of contracts presently under execution duly filled and signed as per <i>Annexure VP</i> ?	Yes	No
7.	Have you uploaded the Undertaking for Technical Bid as per Annexure-VII?	Yes	No
8.	Have you uploaded the scanned copy of the Power of Attorney in respect of the Authorized Signatory for the Bid on a Stamp Paper , if any	Yes	No
9.	Have you uploaded the scanned copy of Bid Security (Annexure VIII)	Yes	No
10.	Does the bidder have the required experience	Yes	No
11.	Does the Domain Expert leader fulfil the minimum educational qualification and experience criteria	Yes	No
12.	Does the key (power sector expert & software and data base expert) professionals (indicate the position) fulfil the minimum educational qualification and experience criteria	Yes	No
13.	All relevant Documents in support of clause 1.7.4. (For marking of technical bids).	Yes	No
Price	e Bid		
1.	Have you uploaded the Price Bid as per BoQ_xxxx?	Yes	No

# **NOTICE INVITING TENDER (NIT)**

Online Bids are invited from eligible bidders for carrying out the work of **19**<sup>th</sup> **Electricity Demand forecast of India (Econometric Method)** at Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi.

# IMPORTANT INFORMATION

	INT INFORMATION
Bid Documents to be downloaded from	http://eprocure.gov.in/eprocure/app
Bid Publishing, Document download start Date & Time	16.01.2017, 11:00 AM
Bid Submission Start Date & Time	16.01.2017, 11:30 AM
Clarification Start Date & Time	16.01.2017, 11:30 AM
Pre bid Meet	06.02.2017, 11:00 AM
Clarification closing Date & Time	06.02.2017, 01:00 PM
Clarification, if any, of pre bid meet to be uploaded	10.02.2017, 11:00 AM
Bid Submission Closing Date & Time	01.03.2017, 03:30 PM
Technical Bid Opening Date & Time	02.03.2017, 04:00 PM
Contact Details	Chief Engineer (PS&LF), Room No.213, 2nd Floor, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi – 110066 Phone: 011-26105546  Email: pslfcea@yahoo.com Website: www.cea.nic.in

Central Electricity Authority, Ministry of Power, invites online bids through the Central Public Procurement Portal (CPP) (<a href="http://www.eprocure.gov.in/eprocure/app">http://www.eprocure.gov.in/eprocure/app</a>) for Scope of Work given in this document, from agencies having long experience and good reputation in this field.

#### **DISCLAIMER**

The information contained in this Tender Document has been prepared solely for the purpose of providing information to the interested parties, and is not in any way binding on Central Electricity Authority (CEA). By accessing this Tender Document, you agree that CEA will not be liable for any direct or indirect loss arising from the use of the information and the material contained in this Tender Document.

Central Electricity Authority (CEA) reserves the right to annul the bidding process and/or reject all bids, without assigning any reason thereof, at any time prior to award of contract and without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the ground for this action.

# 1 PART-I: <u>BID SCOPE & REQUIREMENTS</u>

#### 1.1 SCOPE OF WORK

Bids are invited to carry out Electricity Demand forecast for States/UTs/Regions/all-India using Econometric method for Central Electricity Authority (CEA), Sewa Bhawan, R. K. Puram, New Delhi-110066. The scope of work is given below:

- 1.1.1 Identifying economic parameters that affect electricity demand forecast.
- 1.1.2 Obtaining data for States/UTs/Regions/all- India for the electricity demand forecast exercise and preparing it in the formats required for electricity demand forecast.
- 1.1.3 Perform multiple regression analysis using Panel Data and estimate electricity demand (in MU as well as in MW) for state/UT's/Regions & all-India.
- 1.1.4 Prepare a detailed report on electricity demand forecast using econometric method containing full explanations with respect to selection of explanatory variables, the forecasting models, results of forecast etc.

#### 1.2 DETAILS OF WORK

- 1.2.1 Year-wise Forecast of total electricity demand for all States/UTs/Regions & all-India for the year 2016-17 to 2036-37 by econometric method under various scenarios. The electricity demand forecast would be in both energy (MU) and peak load (MW) terms.
- 1.2.2 Year-wise forecast of electricity demand to be met by Captive power plants as a function of various independent variables exogenously for all States/UTs/Regions & all-India for the year 2016-17 to 2036-37 by econometric method under various scenarios.
- 1.2.3 Year-wise forecast of electricity demand for utilities (excluding demand met through captive generation) for all States/UTs/Regions & all-India for the year 2016-17 to 2036-37 under various scenarios. The electricity demand forecast would be in both energy (MU) and peak load (MW) terms.
- 1.2.4 Collecting/obtaining data for the past 30 to 40 years for all-India/States/UTs, including data of captive power plants, and preparing it in the formats required for electricity demand forecast exercise. The entire responsibility of collecting /obtaining data for the electricity demand forecasting exercise and preparing it in the formats required for electricity demand forecast lies with the bidder. Electricity related data readily available with CEA will be provided to the bidder.

- 1.2.5 Identify at least eight independent variables preferably economic and demographic having co-relation with Electricity Demand and regression shall be carried out using at least four independent variables after analyzing these variables using various statistical tests. Variables can be linear or log transformation form as may be required. The selected independent variables would not include dummy variables or lag/serial correlation variables. All economic independent variables should be expressed in real terms, deflated by the Consumer Price Index. Conduct statistical analysis technique on selected independent variables using multiple regression on panel data and estimate the all-India and state/UT-wise electricity demand correlated with likely key econometric drivers of demand after studying the historical trends and trends between cross-sectional units viz. States/UTs. The selected regression variables must pass all statistical tests. Scenario analysis studies shall be conducted wherever necessary.
- 1.2.6 Perform multiple regression analysis using Panel Data and estimate electricity demand (in MU as well as MW) for all-India and state/UT's incorporating factors mentioned above. In case of non-convergence of the model for state wise forecasts, alternative methods in conjunction with Panel Data like simulation, ARIMA etc. could be adopted. In this case, non-economic independent variables could also be identified for regression, if required.
- 1.2.7 Consider the effect of DSM (Demand Side Management), energy conservation and efficiency improvement measures in the model. The forecast has to be worked out with and without the consideration of DSM, energy conservation and efficiency improvement measures. This could be incorporated exogenously in the model, if required, through simulation methods.
- 1.2.8 Various policy initiatives and programmes of Government of India/State Governments which impact the electricity demand forecast are to be considered while estimating the electricity demand. The electricity demand forecast should factor in the increase in electricity demand on account of 24x7 Power for All initiative of Government of India.
- 1.2.9 Prepare and submit a detailed report covering details of electricity demand forecast using econometric method containing full explanations with respect to selection of explanatory variables, the forecasting models, results of forecast etc. The title of report would be "19th Electric Power Survey of India (Econometric method)". The report would be finalized after deliberations with the 19th Electric Power Survey Committee (EPS).
- 1.2.10 Use latest state of the art statistical software for the consultancy work. CEA officers would be associated at every stage viz. in the selection of variables, formulation of model, finalization of the report etc. The internal working of the model and the final equations obtained for various scenarios of the model to be shared with and explained to the officers associated with the work.
- 1.2.11 Replying to queries/clarifications raised by members of 19th Electric

Power Survey (EPS) Committee/stakeholders during the period of consultancy and six months after the completion of the consultancy work.

#### 1.3 DELIVERABLES

The deliverables would be in the form of a comprehensive report on electricity demand projection using econometric method with full explanations with respect to selection of explanatory variables, forecasting models and results etc. The Report would broadly cover the following:

- 1.3.1 Brief literature survey covering methodology used by various countries for electricity demand forecast using econometric method.
- 1.3.2 Electricity Demand forecasting methodology with assumptions used.
- 1.3.3 Historical trend of independent variables.
- 1.3.4 Effect of various independent variables on state-wise/UTs/All India Electricity Demand used for various scenarios.
- 1.3.5 Detailed analysis of model selected for the forecast and simulation subjected to diagnostic tests for statistical consistencies and robustness.
- 1.3.6 The study should clearly bring out the total demand and demand on Utilities (viz. total demand excluding the demand met by Captive Power Plants) for each State/UT/Region and on all-India basis. The forecast should be year-wise for the period 2016-17 to 2036-37.
- 1.3.7 The report shall cover comparisons of the forecast obtained by partial end use method (as brought out by CEA) and Econometric method (for Utility) and graphs highlighting the same for all States/UTs/Region & all-India.
- 1.3.8 Conclusions and Recommendations.
- 1.3.9 Brief write up on the source of data used for the demand forecast exercise should be included in the Report. Referencing of the data must be provided in the Report.
- 1.3.10Both hard copy and soft copy of data used for the electricity demand forecast exercise must be provided to CEA. Source of data used for the studies must be clearly brought out.

#### 1.4 COMPLETION SCHEDULE

The time period for carrying out the electricity demand forecast by econometric method would be nine months. In case of unforeseen circumstances, the extension of time for completing the work is at client's discretion. The following timelines for deliverables and milestones for the consultancy, assuming that the engagement starts at time T (Issuance of Work Order) would have to be adhered to.

S. No.	Deliverables	Timelines
1	Inception Report	T+7 Days
2	Preparation & Submission of detailed plan of action	T+14 Days

S. No.	Deliverables	Timelines
3	Collection of Data requirement & processing	T+4
4	Modeling of the data for various scenarios using appropriate statistical software and working out electricity demand forecast	T+5
5	Submission of Draft report to Chief Engineer (PS&LF), CEA and Member Secretary of 19 <sup>th</sup> Electric Power Survey Committee (EPSC), who would obtain the comments/suggestions of 19 <sup>th</sup> EPSC Members on the draft report.	T+ 6 months
6	Submission of final report after incorporation of views/suggestions of 19 <sup>th</sup> Electric Power Survey Committee (EPSC) Members to the satisfaction of the committee members.	T+ 9 months

Progress Reports to be submitted every 15 days indicating the activities remaining / completed as against the scheduled tasks / activities.

#### 1.5 PRE QUALIFYING REQUIREMENT

All Bidders shall have to fulfill the following prequalifying terms and conditions:

- 1.5.1 The Bidder shall have an office in India. A documentary proof for the same shall be submitted along with Technical bid.
- 1.5.2 The Bidder shall be conversant with medium and long-term electricity demand forecasting techniques using various types of statistical/simulation methods. The bidder should be well versed in variations of Panel data methods (Fixed Effect and Random Effect), Demand Supply Analysis, sensitivity analysis. The Bidder shall furnish all relevant written documents and work completion certificates for qualifying experience.
- 1.5.3 The bidder should preferably have successfully completed at least five medium-term/long-term electricity demand forecasting work for any Utility in India through advanced statistical methods using economic variables in the past ten years and at least three numbers of medium/long-term forecasting works in energy sector (excluding electricity demand forecast) in India in the past ten years. Necessary documentary evidence along with the work completion certificates shall be enclosed along with the tender.

1.5.4 The bidder shall possess qualified manpower and relevant state of art software packages for carrying out the work. *Documentary proof to be provided*. Bidders to ensure that the team members for the work should have experience as follows:

Category	Minimum Qualification	Minimum Nos.
Domain Expert	Ph.D. in	
	engineering/economics/statistics	
	with minimum 5 years of	One
	experience in econometric	
	modeling using panel data.	
Power Sector	Degree in Electrical Engineering	
Experts	with minimum 10 years of	Trees
	experience in Power Sector having	Two
	knowledge of statistics.	
Software and	Bachelor/Master's Degree in	
database experts	IT/Computer applications with	Two
	minimum 7 years of experience.	

The team working on the project would preferably remain the same. However, Domain Expert and Power Sector expert cannot be changed during the period of consultancy without the consent of the client.

- 1.5.5 The Bidder should not have been blacklisted by any of the Government/Public Sector Undertaking (s) (PSUs) and private organizations.
- 1.5.6 The Bidder shall have a valid PAN and Service Tax Number.
- 1.5.7 Submission of scanned copy of the Bid security of Rs.3.0 Lakh (Rupees three lakh only) in the form of a Bank Guarantee issued by a Nationalised / scheduled bank (as per Annexure VIII), in favour of DDO, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi-110066 valid up to 15.07.2017. In case the bidder claims for waiver of bid security, Documentary Proof for waiver must be provided. Originals to be submitted by the date and time of bid opening.

#### 1.6 PRE-BID MEETING

The Pre Bid meet will be held on 06.02.2017 in CEA Conference Hall,  $2^{\rm nd}$  Floor, Sewa Bhawan, R. K. Puram, New Delhi-110066 from 11.00 hours to 13.00 hours. Interested bidders may choose to attend the pre-bid meet at their own cost.

During the pre-bid meeting, clarification will be given and bidders will be allowed to raise further queries (only in writing), and replies of queries will be recorded as

minutes of meeting which will form the final document which will be posted on the public procurement portal.

# 1.7 SELECTION PROCEDURE FOR BIDDER & EVALUATION CRITERIA

Selection of bidder for award of work would be made from amongst the bidders who qualify the pre-qualifying requirement.

- 1.7.1 The selection of bidder shall be made on the basis of two part bid comprising of Technical Bid and Financial Bid.
- 1.7.2 Technical evaluation would be carried out prior to opening any financial proposal.
- 1.7.3 Evaluation Criteria does not absolve the bidder from not performing the task assigned as per TOR.
- 1.7.4 Technical Bids of only those bidders meeting the prequalifying requirements would be graded on a scale of 100 points as detailed below.

Sl. No.	Evaluation Criteria (Documentary evidence to be provided)	Maximum Sub- Points	Maximum Points
1.7.4.1	Specific experience of the bidder related to the	Sub-1 onits	
1./.4.1	assignment		50
1.7.4.1.1	Electricity demand forecasting carried out for		
1.7.4.1.1	Utilities in India		
	(i) 5 projects (6 point)		
	(ii) 6-8 projects (8 point)	10	
	(iii) More than 8 projects (10 point)		
1.7.4.1.2	Forecasting work carried out for energy sector		
	(excluding electricity demand		
	forecast) in India	7	
	(i) 3 projects (5 point)	,	
	(ii) 4-6 projects (6 point)		
	(iii) More than 6 projects (7 point)		
1.7.4.1.3	Electricity demand Forecasting carried out using		
	time series analysis like:		
	(i) Exponential smoothing	4	
	(ii) Stepwise multiple regression analysis	4	
	(iii) Box Jenkins technique		
	(iv) Curve fitting method (1 point for each method)		
1.7.4.1.4	Electricity demand Forecasting carried out using		
1./.4.1.4	Panel Data methods:		
	(i) Experience and implementation of Fixed		
	Effect method	20	
	(ii) Experience and implementation of Random	20	
	Effect method		
	(10 point for each Method)		
1.7.4.1.5	Electricity demand Forecast carried out using		
	simulation method with knowledge of controlling		
	internal and external variables in the forecast:	5	
	(i) Simulation method used for		
	Convergence (5 point)		

Sl. No.	Evaluation Criteria (Documentary evidence to be provided)	Maximum Sub- Points	Maximum Points
	(ii) Simulation method sparingly used for		
	Convergence (2 point)		
	(iii) Simulation method never attempted (0 point)		
1.7.4.1.6	Experience in Modeling of electricity demand met		
	through captive power generation	2	
	Yes (2 point)	2	
	No (0 point)		
1.7.4.1.7	Experience in Modeling of Demand Side		
	Management, T&D losses etc. in the forecast	2	
	Yes (2 point)	2	
	No (0 point)		
1.7.4.2	Adequacy of the proposed work plan and		
	methodology in responding to the scope of work,		
	covering:		
	(i) Details of electricity demand forecast	07	
	carried out along with comparison of		
	forecast with actuals (maximum 7 points)		
	(ii) Detailed Work Plan including Methodology	10	
	to be adopted, Man Power to be assigned to		
	the job etc. (maximum 10 points)		
	(iii)Independent variables likely to be adopted	05	
	in the forecasting exercise. (maximum 5		
	points)		
	(iv) Availability of data/ sources from which	04	30
	data would be collected (maximum 4		30
	points)		
	(v) Incorporation of various policies and		
	programmes of Government in the forecast	04	
	viz. Power for all Initiative, aggressive		
	DSM etc. (maximum 4 points)		
	Gist covering all aspects of consultancy through		
	a presentation up to 20 slides in Power Point.		
	• Presentation would be judged by an expert		
	committee.		
	• The date and time of presentation will be		
	intimated to the bidders who meet the		
	prequalifying requirements.		
1.7.4.3	Qualifications & competence of the key		20
	professional staff for the assignment		
1.7.4.3.1	Domain Expert - Experience in similar power sector		
	assignments	10	
	(i) more than 8 Yrs (10 point)	10	
	(ii) 5 to 8 Years (8 point)		
1.7.4.3.2	Experience of Power Sector Expert assigned for the		
	assignment		
	(i) more than 10 years (6 point)	6	
	(ii) 10 years (4 point)		
1.7.4.3.3	Software and database expert	4	
_,,,,,,,,,	1	•	<u>i</u>

Sl. No.	Evaluation Criteria (Documentary evidence to be provided)	Maximum Sub- Points	Maximum Points
	(i) more than 7 years (4 point) (ii) 7 years (3 point)		
	Total Points		100

- 1.7.5 All relevant Documents in support of clause 1.7.4 to be submitted along with the technical bid. The supporting documents should clear and concise and must clearly indicate the supporting sub-clause.
- 1.7.6 Minimum qualifying points is 70. In case no bidder gets the qualifying points of 70, the client reserves the right to relax the qualifying points by 5 points i.e. to 65 points. If even after relaxing the qualifying points to 65, no bidder qualifies, the client reserves the right to relax the qualifying points further by 5 points i.e. to 60 points.
- 1.7.7 Financial bids of the technically qualified bidders would be opened in the second stage and the contract would be awarded to the L-1 bidder.

# 2. PART-II: BID PREPARATION & SUBMISSION

## 2.1 BIDDING PROCESS

- 2.1.1 The Bidder shall submit the bids electronically, through the e-procurement system (http://eprocure.gov.in/eprocure/app). Any document submitted through any other means shall not be considered as part of the Bid except for the Originals as asked for in this bid.
- 2.1.2 This bid shall follow a two-stage bidding process. The bid shall be submitted in two parts such as Technical Bid and Financial Bid.
- 2.1.3 In the first stage, Technical Bid only shall be opened online and the same shall be evaluated.
- 2.1.4 The Bid shall be considered responsive provided that it meets all the requirements under this bidding document including Technical Specifications.
- 2.1.5 In the second stage, the Price Bid shall be opened for only those bidders whose technical bids are found to be responsive.
- 2.1.6 Price Bid opening date would be intimated separately to those bidders who's technical bid is found to be responsive.

### 2.2 INSTRUCTION FOR ONLINE BIDDING PROCESS

- 2.2.1 The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.
- 2.2.2 More useful information for submitting online bids on the CPP Portal may be obtained at: http://eprocure.gov.in/eprocure/app.

## 2.3 REGISTRATION

- 2.3.1 Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- 2.3.2 As part of the enrolment process, the bidders shall be required to choose a unique username and assign a password for their accounts.
- 2.3.3 Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 2.3.4 Upon enrolment, the bidders shall be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.

- 2.3.5 Only one valid DSC shall be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 2.3.6 Bidder then login to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

## 2.4 SEARCHING FOR BID DOCUMENTS

- 2.4.1 There are various search options built in the CPP Portal, to facilitate bidders to search active bids by several parameters. These parameters could include Bid ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for bids, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a bid published on the CPP Portal.
- 2.4.2 Once the bidders have selected the bids they are interested in, they may download the required documents / bid schedules. These bids can be moved to the respective 'My Bids' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the bid document.
- 2.4.3 The bidder shall make a note of the unique Bid ID assigned to each bid, in case they want to obtain any clarification / help from the Helpdesk.

# 2.5 **PREPARATION OF BIDS**

- 2.5.1 Bidder should take into account any corrigendum/ addendum published on the CPP Portal related to the bid document before submitting the bid.
- 2.5.2 Bidder is advised to go through the bid document carefully to understand the documents required to be submitted as part of the bid. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the bid document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 2.5.3 To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

#### 2.6 **SUBMISSION OF BIDS**

- 2.6.1 Bidder shall log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder shall be responsible for any delay due to other issues.
- 2.6.2 The bidder has to digitally sign and upload the required bid documents one by one as indicated in the bid document.
- 2.6.3 Bidder has to select the payment option as "offline" to pay the BID SECURITY as applicable and enter details of the instrument.
- 2.6.4 Bidder should prepare the Bid Security as per the instructions specified in the bid document. The original should be submitted as per date & time specified in the bid document, otherwise the uploaded bid shall be rejected.
- 2.6.5 Bidder is requested to note that they should necessarily submit its Financial Bid in the format provided and no other format is acceptable. If the Financial Bid has been given as a standard BoQ format with the bid document, then the same is to be downloaded and to be filled by all the bidders. Bidder is required to download the BoQ file, open it and fill in their respective financial quotes and other details (such as name of the bidder) in the blue colored cells. No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid shall be rejected.
- 2.6.6 The server time (which is displayed on the bidders' dashboard) shall be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders shall follow this time during bid submission.
- 2.6.7 All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded bid documents become readable only after the bid opening by the authorized bid openers.
- 2.6.8 The uploaded bid documents become readable only after the bid opening by the authorized bid openers.
- 2.6.9 Upon the successful and timely submission of bids (i.e., after Clicking "Freeze Bid Submission" in the portal), the portal shall give a successful bid submission message & a bid summary shall be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 2.6.10 The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

# 2.7 ASSISTANCE TO BIDDERS

- 2.7.1 Any queries relating to the bid document and the terms and conditions contained therein shall be addressed to the Client or the relevant contact person indicated in the bid.
- 2.7.2 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk 1800 3070 2232.

#### 2.8 BIDDING DOCUMENT

- 2.8.1 The Bidder is expected to examine all instructions, forms, terms and conditions prequalification and technical requirements in the bidding documents. Failure to furnish any information required in the bid shall be treated as non-responsive and may result in the rejection of the bid.
- 2.8.2 The Bidder is required to give confirmation of their acceptance of Terms and Conditions of the bid which shall automatically be considered as part of the Contract concluded with the successful Bidder. Failure to do so may result in rejection of Bid submitted by the Bidder.

# 2.9 BID DOCUMENT FEE

2.9.1 The Bid document can be downloaded from the Central Public Procurement (CPP) Portal free of cost.

#### 2.10 BID VALIDITY PERIOD

2.10.1 The bid shall remain valid for a period of at least 180 days from the last date of submission of the bid.

#### 2.11 TECHNICAL BID

The Technical Bid shall be complete in all respects and contain all information asked for in this document. The technical Bid shall comprise the following:

- 2.11.1 Signed & scanned copy of duly filled Checklist for Bid Submission.
- 2.11.2 Signed & scanned copy of the following documents as per Clause 1.5 and Annexure-I.
- 2.11.2.1 Proof of having an office in India
- 2.11.2.2 Ink signed authorization letter for evidence along with work completion certificates.
- 2.11.2.3 Documentary evidence in respect of having experience in medium and long term forecasting work in energy sector in India and also having adequate experience of forecasting using panel data as per Annexure V.

- 2.11.2.4 The list of the proposed staff team by specialty and the tasks that would be assigned to each staff team member along with timeline.
- 2.11.2.5 Signed CVs of the proposed professional staff and the authorized representative submitting the proposal. Key information should include number of years working for the firm/entity and degree of responsibility held in various assignments.
- 2.11.2.6 Undertaking for not being blacklisted by any of Government /PSU on the bidder's letter head.
- 2.11.2.7 Signed & scanned copies of documents regarding PAN and Service Tax Number.
- 2.11.3 Signed & scanned copy of duly filled Bidder Information as per Annexure-II.
- 2.11.4 Signed & scanned copy of duly filled Bid Acceptance Letter as per Annexure-III.
- 2.11.5 Signed & scanned copy of duly filled Schedule of deviation as per Annexure-IV.
- 2.11.6 Signed & scanned copy of documents regarding Contracts presently under execution as per Annexure-VI.
- 2.11.7 Signed & scanned copy of duly filled Undertaking for Technical Bid as per Annexure-VII.
- 2.11.8 Signed & scanned copy of the Stamp Paper having Power of Attorney from the Bidder in respect of Authorized Signatory for the Bid.
- 2.11.9 Signed & scanned copy of all relevant Documents in support of clause 1.7.4. (for marking of technical bids). The supporting documents should be clear and concise and should clearly indicate the relevant sub-clause (of clause 1.7.4) to which it pertains.
- 2.11.9 Scanned copy of the Bid security of Rs.3.0 Lakh (Rupees three lakh only) in the form of a Bank Guarantee issued by a Nationalised / scheduled bank as per clause 2.12. In case of claiming waiver for Bid Security, scanned copy of the documentary proof as per clause 2.12.2.
- 2.11.10 The Bid Security or Documentary Proof for waiver of the same shall be submitted, in original, by the Bidder by the date & time of Bid Opening.
- 2.11.11 Client reserves the right to verify the uploaded documents with original one.

## 2.12 BID SECURITY

- 2.12.1 The Bidder shall deposit bid security of **Rs.3.0 Lakh (Rupees three lakh only)** in the form of Bank Guarantee from any Nationalized/Scheduled bank (as per Annexure-VIII) in favour of DDO, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi-110066, valid up to 15.07.2017.
- 2.12.2 In case the Bidder claims for waiver of Bid Security, he shall provide

documentary proof of being registered with the Central Purchase Organization, National Small Industries Corporation (NSIC) or the concerned Ministry or Department, as per Rule 157 of GFR 2005, of Government of India, as amended from time to time. The registration must remain valid till the Bid Validity period.

- 2.12.3 The scanned copy of the Bid Security / Documentary Proof for waiver of the Bid Security, shall be uploaded at the time of Bid submission.
- 2.12.4 The original Bid Security/ Documentary Proof for waiver of the Bid Security shall be submitted to the Client by the date & time of Bid Opening, failing which the bid shall summarily be rejected and the Technical Bid shall not be opened.
- 2.12.5 The Bid Security not in conformity in all respects with the requirements as per clause 2.12.1 and 2.12.2 shall summarily be rejected.
- 2.12.6 No interest shall be payable on the Bid Security amount.

# 2.13 The Bid security shall be forfeited if the bidder:

- 2.13.1 Withdraws the bid during bid validity period.
- 2.13.2 Hides/ mis-represents facts.
- 2.13.3 Refuses to accept Letter of Award.
- 2.13.4 Fails to sign the Contract within the stipulated time.
- 2.13.5 Tampers / Modifies the Price Bid Template in any manner.
- 2.13.6 Is found to be involved in any Corrupt, Collusive, Coercive or Fraudulent Practices.
- 2.13.7 The Bid Security of unsuccessful Bidders shall be returned at the earliest after expiry of the final bid validity and latest on or before 30<sup>th</sup> day after the award of contract to successful bidder.
- 2.13.8 The Bid Security of successful Bidder shall be returned on receipt of performance security.

#### 2.14 FINANCIAL BID

- 2.14.1 The Price Bid shall be complete in all respects and contain all information asked for in this document.
- 2.14.2 The Financial bid format is provided as BoQ\_XXXX.xls along with this bid document at http://eprocure.gov.in/eprocure/app. Bidder is advised to download this BoQ\_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial bid. Bidder shall not tamper/modify downloaded Financial Bid template in any manner. In case if the same is found to be tampered/modified in any manner, Bid shall be completely rejected and Bid Security would be forfeited and bidder is liable to be banned

- from doing business with the Client.
- 2.14.3 The amount quoted shall be only in Indian rupees and the prices shall be inclusive of all taxes, duties, cess etc.

#### 2.15 NO PRICE VARIATION

2.15.1The Price quoted shall be firm. No upward revision in the prices would be considered during the Bid validity period.

# 2.16 AMENDMENT OF BIDDING DOCUMENTS BY CLIENT

- 2.16.1 At any time prior to the deadline of submission of the bids, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding documents by way of Amendments/Addendum/Corrigendum. This shall be notified through CPPP website.
- 2.16.2 Prospective Bidders are advised to visit CEA website http://www.cea.nic.in and CPPP website <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> for any corrigendum / addendum/ amendment.
- 2.16.3 In order to provide prospective Bidders reasonable time to take the amendment into account for preparing their bids, the Client may, at its discretion, extend the last date & time of the submission of bids.

#### 2.17 MODIFICATION OF BIDS BY BIDDERS

- 2.17.1 A Bidder may modify his bid on the e-procurement portal (<a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>) till the deadline of the submission of Bid.
- 2.17.2 Modification of the Bid sent through any other means shall not be considered by the Client.

#### 2.18 LATE BIDS

2.18.1 The e-Procurement system shall not allow any late submission of bids after due date and time as per server system.

# 3 PART-III: BID OPENING & EVALUATION

#### 3.1 OPENING OF BIDS

- **3.1.1** The Client shall open the bids as per electronic bid opening procedures specified in Central Public Procurement Portal (CPPP) at the date and time specified. Bidders can also view the bid opening by logging on to the e-procurement system. Specific bid opening procedures are laid down at <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> under the head "Bidders Manual Kit". The bidder shall be at liberty to be present either in person or through an authorized representative at the time of opening of the Bid or they can view the bid opening event online at their remote end. Price Bids of only those Bidders shall be opened whose Technical Bid are found to be responsive.
- **3.1.2** The client shall open the bids in the presence of Bidders' representative who choose to attend at the time, date and venue as mentioned in NIT.
- **3.1.3** No representatives are allowed to attend the Bid Opening without the valid Bid acknowledgement slip received after submission of Bids.
- **3.1.4** In the event of the specified date of bid opening being declared a holiday for client, the bids shall be opened at the specified time and place on the next working day.

# 3.2 PRELIMINARY EXAMINATION OF TECHNICAL BID

- **3.2.1** The Client shall examine the bids to determine their completeness in all respect as per the requirements of this Bid Document.
- **3.2.2** The client may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver does not prejudice to affect the relative ranking of any bidder.

#### 3.3 EVALUATION OF TECHNICAL BIDS

- **3.3.1** The Client shall evaluate the Technical Bid based on the documents submitted by the bidder.
- **3.3.2** Client reserves the right to reject the bid under any of the following circumstances:
  - a) Bid is incomplete and/or not accompanied by all required documents.
  - b) Bid is not in conformity with all the clauses and the terms & conditions stipulated in this document.

# 3.4 EVALUATION OF FINANCIAL BID

- **3.4.1** Financial Bid of only those bidders, whose Technical Bids are found responsive, shall be opened and evaluated.
- **3.4.2** Evaluation shall be done based on the total price (inclusive of all the applicable taxes, duties, cess, etc.) quoted as per Annexure-XI.

# 4 PART-IV: AWARD OF CONTRACT

# 4.1 <u>L-1 BIDDER</u>

**4.1.1** On completion of evaluation process of Price bids, the firm whose evaluated total amount is found to be the lowest would be the L-1 bidder.

# 4.2 LETTER OF AWARD (LoA)

- **4.2.1** The L-1 bidder shall be considered for issuing Letter of Award (LoA).
- **4.2.2** The acceptance of the Letter of Award shall be submitted within 10 (Ten) working days from date of issue of Letter of Award, failing which the Client reserves the right to cancel the Letter of Award.

# 4.3 PERFORMANCE SECURITY

- **4.3.1** A Performance Security in form of bank guarantee from any Nationalized / Scheduled Bank (as per Annexure-X) of a value equal to 10% of the total awarded value as indicated in the Letter of Award shall be deposited by the bidder within Fifteen(15) working days from date of issue of Letter of Award.
- **4.3.2** The Performance Security shall be valid for a period of **eighteen months** from the date of issue.

## 4.4 SIGNING OF CONTRACT

**4.4.1** The successful bidder shall be required to enter into a contract as per Annexure-IX with Client within **Fifteen (15) working days** from *date of issue* of the Letter of Award on submission of the Performance Security as mentioned in clause 4.3.

#### 4.5 SUB-CONTRACTING

**4.5.1** The Bidder shall not assign, in whole or in part, its obligations to perform under the contract, to other firm except with the Client's prior written consent.

# 5 PART-V: SCHEDULE OF WORK/DELIVERY & PAYMENT

# 5.1 TERMS OF EXECUTION

- **5.1.1** The Bidder shall complete the work of electricity demand forecasting by econometric method and submit the draft Report titled "19th Electric Power Survey (Econometric Method)" within six months from the date of issuance of the Letter of Award.
- **5.1.2** The final Report, incorporating comments of members of 19<sup>th</sup> EPS Committee to be submitted within nine months from the date of issuance of the Letter of Award.
- **5.1.2** The bidder shall provide support in respect of queries raised by stakeholders for a period of six months after submission of the final Report.

# 5.2 DELAYS IN THE BIDDER'S PERFORMANCE

**5.2.1** Work shall be completed as per time schedule specified in the Letter of Award. Any delay in performing the obligation by the bidder shall attract liquidated damages and/or termination of contract.

# 5.3 LIQUIDATED DAMAGES (LD)

- **5.3.1** Notwithstanding the Client's right to cancel the order, liquidated damages at @ 0.5% of the awarded value per week, shall be charged for every week's delay in successful execution of work mentioned in clause 5.1.1 and 5.1.2 subject to maximum 5% of the contract value.
- **5.3.2** In case the amount of LD reaches the maximum limit of 5% as specified above, the Client reserves the right to terminate the contract.
- **5.3.3** Part of week shall be treated as a week for this purpose.
- **5.3.4** However, the Client may, at its discretion, waive off the liquidated damages in case the delay is not attributable to the Bidder.

#### 5.4 ORDER CANCELLATION

- **5.4.1** If the Bidder fails to execute the work as per Clause 5.1 within the stipulated time schedule or the extended date communicated by the Client, if any, it shall be treated as breach of contract.
- **5.4.2** The Client reserves its right to cancel the order in the event of breach of contract.
- **5.4.3** The Client may terminate the contract in case of non-resolution of dispute through Arbitration with reference to payment by giving a one

month notice.

# 5.5 PAYMENT TERMS

- **5.5.1** No advance payment shall be made against Letter of Award.
- **5.5.2** Payment shall be made in Indian Rupees only.
- **5.5.3** 30% of the contract value shall be released after submission of the Draft Report. Balance 70% would be released after submission of Final Report.
- **5.5.4** The Liquidity Damages, if any, shall be deducted from this payable amount.

## 5.6 TAX DEDUCTIONS

**5.6.1** Income Tax and other taxes, if any, as per the relevant provision of the Income Tax Act shall be deducted at source from the amount payable to the Bidder.

# 6 PART-VI: GENERAL CONDITIONS OF CONTRACT

# 6.1 **DEFINITIONS**

- **6.1.1** 'Client" means President of India acting through the Chairperson, Central Electricity Authority (CEA), New Delhi.
- **6.1.2** 'Client Office' means Central Electricity Authority office, 2<sup>nd</sup> Floor, Sewa Bhawan, R. K. Puram, New Delhi-110066.
- **6.1.3** The "Contract" means the agreement entered into between the Client and the Contractor as recorded in the Contract Form signed by the Client and the Contractor, including all attachments and annexure thereto and all documents incorporated by reference therein.
- **6.1.4** The "Contractor" or "Vendor" means the Bidder selected through bidding process and shall be deemed to include the Contractor's successors, representatives (approved by the Client), heirs, executors, administrators and permitted assigns, as the case may be, unless excluded by the terms of the contract.
- **6.1.5** 'Bidder' means Bidder
- **6.1.6** 'Bidder' means the person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Client and is named as such in the Contract Agreement.
- **6.1.7** 'Awarded Amount" means the amount payable to the Contractor under the Contract.
- **6.1.8** "Service" means services to be provided by the Contractor as per the requirements specified in the bid document and any other incidental services and other such obligations of the Contractor covered under the Contract.
- **6.1.9** 'Deadline' means the last date & time.
- **6.1.10** 'Corrupt Practice' means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bidding process or in contract execution.
- **6.1.11** 'Fraudulent Practice' means a misrepresentation or omission of facts in order to influence a bidding process or the execution of a contract to the detriment of the Client, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Client of the benefits of free and open competition.
- **6.1.12** 'Collusive Practice' means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Client, designed

- to establish bid price at artificial, non-competitive levels.
- **6.1.13** 'Coercive Practice' means harming or threatening to harm, directly or indirectly, person or their property to influence their participation in the biding process or affect the execution of a contract.
- **6.1.14** 'Undesirable Practice' means establishing contact with any person connected with or employed by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the bidding process.
- **6.1.15** 'Restrictive Practice' means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the bidding process.
- **6.1.16** "19th Electric Power Survey Committee (EPSC)" constituted by CEA vide letter No. CEA/Plg/DMLF/PS/2/19EPS/2014 dated: 11.06.2015 to forecast the electricity demand (Utilities) of the country till the year 2036-37.

# 6.2 APPLICATION

**6.2.1** These General Conditions shall apply to the extent that provisions in other parts of the Contract do not supersede them.

# 6.3 COST OF BIDDING

**6.3.1** The Bidder shall bear all the costs associated with the preparation and submission of his bid and the Client shall in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

# 6.4 GOVERNING LANGUAGE

**6.4.1** The Bid, as well as all correspondences and documents relating to the bid exchanged by the Bidder and the Client, shall be in English language only. Supporting documents and printed literature, if not in English language that are part of the bid document shall be accompanied with a self-certified copy of English translation of the same. The English translation shall govern.

## 6.5 CLARIFICATIONS OF BIDS

**6.5.1** To assist in the examination, evaluation and comparison of bids the client may, at its discretion, ask the bidder for clarification and response shall be in writing through e-mail or fax. Response/clarification shall be submitted by authorized signatory only. In case the bidder fails to submit the desired information/clarification sought by the Client within stipulated time, further evaluation of the bid shall not be carried out and the

Client reserves the right to reject the bid.

## 6.6 CONTACTING THE CLIENT

- **6.6.1** Any clarification / query related to the Bidding document may be addressed to the Nodal officer of the scheme i.e Chief Engineer (PS&LF), CEA, in writing through e-mail or fax as per the details given in section 7.0 under SCC. Clarification / Queries received, only, by the date & time mentioned in NIT shall be entertained.
- **6.6.2** Any effort by bidder to influence the client in the client's bid evaluation, bid comparison or contract award decision may result in the rejection of the Bidders' bid.

## 6.7 CLIENT'S RIGHT TO ACCEPT OR REJECT ANY BID OR ALL BIDS

**6.7.1** The Client reserves the right to accept or reject any bid and/or annul the bidding process and/or reject all bids, without assigning any reason thereof, at any time prior to award of contract and without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the ground for the Client's action.

# 6.8 AMENDMENT OF CONTARCT

**6.8.1** No variation or modification of the terms of the Contract shall be made except by written amendment signed by both the parties i.e. the Contractor and the Client.

## 6.9 PAYMENT CONDITIONS

**6.9.1** The payment shall be made as per clause 5.5 subject to deduction of Liquidity Damages, if any, as per clause 5.3.

# 6.10 <u>TAXES</u>

- **6.10.1** The Contractor shall be entirely responsible for payment of all the taxes and duties as per Government norms.
- **6.10.2** Client may deduct any taxes, duties and any other statutory levies imposed by the Government on such charges as may arise from the implementation of the contract agreement.

#### 6.11 USE OF CONTRACT DOCUMENTS AND INFORMATION

**6.11.1**The Bidder shall not, without the client's prior written consent, make use of any document or information provided by client in Bid

- document or otherwise except for purposes of performing contract, if any.
- **6.11.2** Any document, other than the Contract itself, shall remain the property of the Client and shall be returned (in all copies) to the Client on completion of the Contractor's performance under the Contract, if so required by the Client.

# 6.12 INTELLECTUAL PROPERTY RIGHTS

**6.12.1** All Intellectual Property Rights (IPR) for the data collected for the studies/works performed by the contractor shall be with the client. Electricity Demand Forecast/Results obtained should not be published elsewhere in the form of research papers/technical papers/thesis.

# 6.13 TERMINATION OF CONTRACT

- **6.13.1** The Client, without prejudice to any other remedy for breach of Contract, by giving one month written notice to the Contractor, may terminate this Contract in whole or in part, if the Contractor fails to perform any obligation(s) under the Contract.
- **6.13.2** The Client may at any time terminate the Contract by giving one month written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination shall be without compensation to the Contractor, provided that such termination shall not prejudice or affect any right of action or remedy, which has accrued or shall accrue thereafter to the Client.
- **6.13.3** No payment by the Client shall be made for the remaining period of Contract from the date of the termination of the contract.
- **6.13.4** In the event of the termination of this Contract for any reason, or in the event the Contractor is discharged of its obligations as per provisions of this Contract, all the amounts outstanding towards balance period under this Contract shall be payable by either party as due.
- **6.13.5** In case of the Termination of the Contract, the Performance Security submitted by the Contractor shall be encashed by the Client.
- **6.13.6** The Bidder may terminate the contract in case of non-resolution of the dispute through arbitration with reference to payment by giving a notice of 3 months.

# 6.14 FORCE MAJEURE

**6.14.1** The terms and conditions of the orders shall be subject to force majeure. Neither seller nor Client shall be considered in default of its obligation under this contract, if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, sabotage, strikes, lock outs, fires, floods, explosions, epidemics, accidents, freight embargoes on export or import to India, Acts of God, Acts of Government, shall one or both

- parties be prevented from fulfilling their actual obligations by the state of force majeure lasting continuously for a period of 3 months the two parties shall consult each other regarding future implementation of the contract.
- **6.14.2** Bidder shall promptly notify the Client in writing of such conditions and the cause thereof within thirty days of occurrence of such event. Unless otherwise directed by the Client in writing the bidder shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- **6.14.3** If works are suspended by force majeure conditions lasting for more than two months, the Client shall have option to cancel the contract in whole or part thereof at his discretion.

### 6.15 GOVERNING LAW AND DISPUTES

- **6.15.1** The Client and the Contractor shall make every effort to resolve amicably by direct informal negotiations, any disagreement or disputes, arising between them under or in connection with the Contract.
- **6.15.2**In case of any dispute relating to this contract which may arise during or after the execution of the contract, the case shall be referred to the arbitrator appointed by the Chairperson, CEA, whose decisions shall be final and binding on both the parties. The proceedings of the arbitration shall be carried out in New Delhi only.

## **6.16 STANDARDS OF PERFORMANCE**

**6.16.1**The Bidder shall perform the Services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted standard & procedures, techniques and practices used in the industry. It shall employ prudent technical and engineering practices. It shall employ advanced and latest technology and safe and effective equipment, machinery, material and methods. The Bidder shall always act, in respect of any matter relating to this Contract, as faithful advisors to the Client and shall, at all times, support and safeguard the Client's legitimate interests in any dealings with Third Parties.

## 6.17 CORRUPT AND FRAUDULENT PRACTICES

- **6.17.1** The Client requires that Bidders/Bidder observe(s) the highest standard of ethics during the bidding process and during the execution of the Contract. In terms hereof, the Client:
- shall reject the Bid of a Bidder including the Selected Bidder if he determines that the Bidder has engaged in corrupt or fraudulent or collusive or coercive, or undesirable or restrictive practices in competing for

- the award of Work in question.
- shall declare a Bidder ineligible, either indefinitely or for a stated period of time, from participation in any bid or bidding process or for award of a contract/contracts or continuing with it after award if it, at any time, determines that the Bidder has engaged in "corrupt or "fraudulent" or "collusive" or "coercive" or undesirable or restrictive practices in competing for, or in participating the bidding process or in executing, the Contract.

# 6.18 DATA SECURITY

The confidentiality of data and results must be ensured while carrying out the electricity demand forecast exercise as well as after the completion of work. Data collected will be the sole property of CEA and should not be divulged in any form to any external agency without the written consent of CEA. Any breach of this clause will tantamount to blacklisting of the firm/bidder.

# 7. PART-VIII: ANNEXURES

# **ANNEXURE-I PRE QUALIFICATION DOCUMENTS**

The minimum qualifying requirements for the bidders are as under: -

Sl.No	Pre-Qualification Requirement (as per Clause 2)	Compliance (Yes/No)	Detail of proof Attached
1.	Proof of having office in India		
2.	Proof of being authorized partner, an ink signed authorization letter from the original developer/Bidder shall be submitted.		
3.	Proof of having successfully completed at least five medium/long term electricity demand forecasting work and three numbers of medium/long-term forecasting work in energy sector (excluding electricity demand forecast) in India as per Annexure V.		
4.	Proof of having adequate manpower to carry out the electricity demand forecast as specified in clause 1.5.4.		
5.	Signed CVs of the proposed professional staff and the authorized representative submitting the proposal.		
6.	Undertaking for not being blacklisted by any of Government /PSU on the letter head.		
7.	Details of valid PAN and Service Tax Number.		

# **ANNEXURE-II- BIDDER INFORMATION**

1. Name of the I	Bidding firm		
2.Full Address & Contact			
Details of the	firm		
3. Name of the Signatory for			
4.Bidder's pro and date	posal number		
regarding this	whom all hall be made s bid:		
	lephone		
(b) Fa	x No.		
(c) E-:	mail		
(d) Mo	obile		
		Bidder	
Signature of t Signatory	the Authorized		
Name:			
Designation:			
Date:			
Company Seal:			
	V	VITNESSES	
	Witnes	s 1	Witness 2
Signature:			
Name:			
Address:			
Date:			

# ANNEXURE-III BID ACCEPTANCE LETTER

(To be given on Bidder Letter Head)

То,	Chief Engineer (PS&LF), Central Electricity Authority, Room No.213, 2 <sup>nd</sup> Floor, Sewa Bhawan, R. K. Puram, New Delhi – 110 066.
	Acceptance of Terms & Conditions of the Bid ame & Reference No:
Dear	Sir,
1.	I/ We have downloaded / obtained the Bid Document(s) for the above mentioned 'Bid' from the web site(s) namely:
2.	I / We hereby certify that I / we have read the entire terms and conditions of the Bid Documents from Page No to (including all documents like annexure(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3.	The corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter.
	I/We hereby unconditionally accept the Bid conditions of above mentioned Bid document(s) / corrigendum(s) in its totality / entirety.
	I/We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.  I/We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said Bid Security deposit absolutely.
	Yours Faithfully

# ANNEXURE-IV SCHEDULE LIST OF DEVIATIONS

(Please note that Client will not evaluate any deviation mentioned elsewhere in the bid except as mentioned hereunder)

We have carefully gone through the bid document and hereby confirm that all the requirements of specifications contained in the bid document are agreed by us expect for the following deviations:

Sr. No.	Clause No. / Page No.	Bid Requirement	Deviation
1.			
2.			
3.			
4.			
5.			
6.			

(If left blank it will be construed that there is no deviation from the Terms & Conditions of the bid document)

# **ANNEXURE-V**

Details of having successfully completed at least five **medium/long term electricity demand forecasting work** for utility/state in India and at least three numbers of medium/long term forecast work in energy sector (excluding electricity demand forecast) for any utility/state in India in the last ten years.

Sr. No.	Name & Address of the Utility/State	Date & Period of Contract	Contact details of the client	Attach copy of the award of contract & completion certificate
1	2	3	4	5
A. Mediun	n/long term electricit	y demand forecas	ting work in Inc	dia
1				
2				
3				
4				
5				
	sting work for energy st) in India	sector <b>(excluding</b>	electricity de	mand
1				
2				
3				
4				
5				

Note: In case number of forecasting work done is more than the minimum stipulated requirement, the same may please be indicated above.

Signature & Seal of the Bidder

# ANNEXURE-VI DETAILS OF CONTRACTS PRESENTLY UNDER EXECUTION

Sr. No.	Name of Organization	Date & Period of Contract	Contact details of the client including Email
1	2	3	4

Signature & Seal of the Bidder

### ANNEXURE-VII UNDERTAKING FOR TECHNICAL BID

(On the letter head of the firm submitting the bid)

Bid I	No.															
-------	-----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

To,

Chief Engineer (PS&LF), Central Electricity Authority, Room No.213, 2<sup>nd</sup> Floor, Sewa Bhawan, R. K. Puram, New Delhi – 110 066.

Dear Sir/Madam,

- 1. I/We have examined and have no reservations to the Bidding Documents, including Corrigenda /Addenda issued.
- 2. I/We meet the eligibility requirements and have no conflict of interest.
- 3. I/We have not been suspended nor declared ineligible in India.
- 4. I/We offer to carry out the work in conformity with the Bidding Documents;
- 5. I/We offer to carry out the work as listed in the Bidding Documents at the price given in the said Price Bid and agree to hold this offer open for a period of 180 days from the deadline for the submission of the Bid.
- 6. I/we shall be bound by a communication of acceptance issued by you.
- 7. I/We have understood the Bidding Document and have thoroughly examined the specifications quoted therein and am/are fully aware of the nature of the work required and my/our offer is to carry out the work strictly in accordance with the specifications and requirements.
- 8. The Bid Security of Rs. 3,00,000/- (Rupees Three Lakh Only) in the form of Bank Guarantee from any Nationalized/Scheduled bank valid for at least 45 (Forty Five) Days beyond the validity period of the bid.
- 9. Certified that the bidder is:
  - a) A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,

Or

b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.

Ot

c) A bidder and the person signing the document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions shall invariable be duly attested by the person authorized to sign the bid document).

- 10. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.
- 11. If our bid is accepted, we commit to submit a performance security in accordance with the Bidding Documents.
- 12. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf shall engage in any type of fraud and corruption.

Name of the Bidder* [insert complete name of person signing the Bid]
Name of the person duly authorized to sign the Bid on behalf of the Bidder** [insert complete name of person duly authorized to sign the Bid]
Title of the person signing the Bid [insert complete title of the person signing the Bid]
Signature of the person named above [insert signature of person whose name and capacity are shown above]
Date signed _[insert date of signing] day of [insert month], [insert year] *: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder
**: Person signing the Bid shall have the power of attorney given by the Bidder and the same shall be attached.
Yours faithfully,
(Signature & Seal of the bidder)
Dated this day ofAddress: Telephone No. :

#### ANNEXURE-VIII FORMAT OF BID SECURITY

(Sample Format – To be executed on a non-judicial stamped paper of requisite value)

To

DDO, Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi-110066.

Re	Ref: Dat	re
Ва	Bank Guarantee No	
1.	WHEREAS (hereinafter called the 'the Bidder") has und Bid () for the "carrying out electrons tates/UT's/ Regions/all-India by economicalled the 'the Bid") to you.	dertaken, in pursuance of the ectricity demand forecast of

- 2. AND WHEREAS, it has been stipulated by you in the said Bid that the Bidder shall furnish you with a Bank Guarantee from a Nationalized/Scheduled Bank for the sum specified therein, as security for the Bid in accordance with the Bid.
- 3. AND WHEREAS we ------ (Name of the Bank) having its registered office at ---- and inter alia a branch office situated at ----- have agreed to give a Bid Security of Rs. 3,00,000 (Rupees Three Lakh Only) (hereinafter called as the Guarantee Amount) on behalf of the Bidder.
- 4. We ------ (Name of the Bank) further undertake not to revoke and make ineffective the guarantee during it's currency except with the previous consent of the Central Electricity Authority (hereinafter called as the Client).
- 5. We ----- (Name of the Bank) do hereby unconditionally and irrevocably undertake to pay to the Client without any demur or protest, merely on demand from the Client, an amount not exceeding the Guarantee Amount by reason of any breach of the terms of the Bid dated ------ by Bidder. We hereby agree that the decision of the Client regarding breach of the terms of the Bid shall be final, conclusive and binding on us.
- 6. We do hereby guarantee and undertake to pay forthwith on demand to the Client a sum not exceeding the Guarantee Amount and we undertake to pay you upon your first written demand declaring the Bidder to be in default under the Bid and without cavil or argument, any sum or sums within the limit of the Guarantee Amount as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

- 7. We, the Bank, further agree that the Client shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents listed hereinabove, and the decision of the Client that the Bidder is in default, as per the Bid Document, shall be final and binding on us, notwithstanding any differences between the Client and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
- 8. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
- 9. Our obligation to make payment under this Guarantee shall be a primary, independent and absolute obligation and we shall not be entitled to delay or withhold payment for any reason.
- 10. This guarantee is valid until **<date>** and a claim in writing is required to be presented to us on or before **<date>** failing which all your rights shall be forfeited and we shall be relieved of and discharged from all our liabilities mentioned hereinabove.

Signature and Seal of Guarantors (Bidder's Bank)
DateAddress
In presence of WITNESSES (Name & Address)
1.
2.

Note: The bid security in favour of DDO, Central Electricity Authority has to be submitted to Chief Engineer (PS&LF), Central Electricity Authority, Room No.213,  $2^{\rm nd}$  Floor, Sewa Bhawan, R. K. Puram, New Delhi-110066.

#### ANNEXURE-IX CONTRACT AGREEMENT

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made

the [insert: **number**] day of [insert: **month**], [insert: **year**].

#### BETWEEN

- (1) [insert complete name of Client], a [insert description of type of legal entity, for example, an agency of the Ministry of .... of the Government of {insert name of Country of Client}, or corporation incorporated under the laws of {insert name of Country of Client}] and having its principal place of business at [insert address of Client] (hereinafter called "the Client"), of the one part, and
- (2) [insert name of Bidder], a corporation incorporated under the laws of [insert: country of Bidder] and having its principal place of business at [insert: address of Bidder] (hereinafter called "the Bidder"), of the other part:

WHEREAS the Client invited bids for carrying out electricity demand forecast of states/UT's/ Regions/all-India by econometric method viz., [insert brief description of Services] and has accepted a Bid by the Bidder for the supply of those Services.

The Client and the Bidder agree as follows:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
- 2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
  - (a) the Bid Document
  - (b) the Letter of Award
  - (c) the uploaded Bid by the Bidder on the CPP portal.
  - (d) the Addenda / Corrigenda Nos.\_\_\_\_ (if any)
  - (e) General Conditions of Contract
  - (f) the Specifications covered in the Contract
  - (g) the completed Annexures (including Price Bid (BOO))

- (h) any other document listed in General Conditions of Contract of Contract as forming part of the Contract
- 3. In consideration of the payments to be made by the Client to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Client to provide the services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- 4. The Client hereby covenants to pay the Contractor in consideration of the provision of the services and the remedying of defects therein, the Contract Amount or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of [insert the name of the Contract governing law country] on the day, month and year indicated above.

For and on behalf of the Client

Signed: [insert signature] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

For and on behalf of the Contractor

Signed: [insert signature of authorized representative(s) of the Contractor] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

# ANNEXURE-X FORMAT OF PERFORMANCE SECURITY

Sewa B	Electricity Authority, hawan, R. K. Puram, lhi-110066.	
Ref:	D	ate
Bank Guaran	tee No	
covering (hereinafter of India acting Delhi - 1100 Client) and certify that a Bank Ltd., a and keep in caused to of Contractor of in the performand/or in the amo Client, shall	called the said 'contract') entered through The Chairperson, Cen 066 or its authorized representation (hereinafter case the request of the Contractor (write the sum demnified the Client against and r suffered by the Client by r f any of the terms and conditions rmance thereof. We agree the breach of any of the terms and e performance thereof has been unt of loss or damage that has a be final and binding on us and all be paid by us forthwith on described the contractor of the terms and the paid by us forthwith on described the said of the terms and the paid by us forthwith on described the paid by us forthwith on described the said the paid by us forthwith on described the said the paid by us forthwith on described the said the paid by us forthwith on described the said the paid by us forthwith on described the said the said the paid by us forthwith on described the said the paid by us forthwith on described the said the said the paid by us forthwith on described the said the sai	d into between the President of tral Electricity Authority, New ntative (hereinafter called the alled the Contractor) this is to or we of the Client, the amount of here in words) to indemnify y loss or damage that may be reason of any breach by the ns of the said contract and/or at the decision of the Client, conditions of the said contract a committed by the Contractor been caused or suffered by the the amount of the said loss or
shall be effect and that if an of the Bank) shall be entered Bank). Paym	ne guarantee herein contained ctive till heny claim accrues or arises againg, by virtue of this guarantee beforceable against us hent under this letter of guarantee of notice to that effect from	rereinafter called the said date ast us (Name before the said date, the same (Name of the latter shall be made promptly
-	y understood that this guaranto	

undertake not to revoke this guarantee during its currency without the consent in writing of the Client.

4. We undertake to pay to the Client any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present bond being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.						
Place						
Signature						
Witness						
Printed name						
(Bank's common seal)						
Date						

#### **ANNEXURE-XI: BILL OF QUANTITY**

S1. No.	Item Description	Quantity	Unit	Price (inclusive of all taxes, duties, cess etc.) In Figures To be entered by the Bidder (Rs.)	Total Price Inclusive of All Taxes (Rs.)	Total Price in Words
1	2	4	5	13	53	55
1	19th Electricity Demand forecast of India (Econometric method)	1	no			
	Total in Figures		•			
	Quoted Rate in Words					

- 1. The above mentioned Price bid format is provided as BoQ\_XXXX.xls along this document with bid https://eprocure.gov.in/eprocure/app. Bidders are advised download this BoQ\_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial Bid. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tempered/modified in any manner, bid shall be completely rejected and Bid Security would be forfeited and bidder is liable to be banned from doing business with the Client.
- 2. The rates shall be quoted in Indian Rupee only.
- 3. In case of any discrepancy in the total price indicated in Figure and total price indicated in Word, the total price indicated in word shall be considered for evaluation.
- 4. In case of any discrepancy in calculation, the total price quoted in words shall be considered for computation.
- 5. The quoted rates shall remain firm throughout the validity period of the bid and no revision is permissible for any reason.
- 6. The Evaluated Total Amount for the Bid shall be the total price worked out after considering discrepancies, if any.