

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**PBS INSTRUCTION 100-73**

**PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED  
ENGINEERING STUDY OF PBS ELECTRIC SYSTEM**

**BANGLADESH RURAL ELECTRIFICATION BOARD**  
**PBS INSTRUCTION 100-73**

Approval Date: 19/02/2020

Revision Date : -

**SUBJECT: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED  
ENGINEERING STUDY OF PBS ELECTRIC SYSTEM**

**I. PURPOSE**

To set forth BREB Policy and prescribe procedures with respect to procure System Study Consultant for rural electrical network system of PBS using System Study Software.

**II. GENERAL**

It is essential that PBS has the services of competent Electrical System Study Consulting Firms so that their maximum benefit according to the high standards established by BREB for electrical network service for RE (Rural Electric) supply systems. To achieve the goal BREB/ PBS will procure consultancy service from Electrical System Study Consulting Firm.

Electrical System Study Consultants are special purpose consulting firms fully trained to study PBS Electrical System by world wide used software specially developed for this purpose. They are understood to have a level of expertise of Electrical Network System have all the tools and knowledge necessary to study.

**III. SERVICES TO BE PROVIDED**

A firm with expert capabilities in processing electrical system study by software are encouraged to provide consultancy service. The firm will have a mastery of all

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 1 of 11	-
Revision Date: -				

  
(Md. Mozibur Rahman)  
Consultant TAPP BREB


  
(Md. Duhidul Islam)  
Consultant TAPP BREB

  
(Md. Mozammel Huq)  
Consultant TAPP BREB

  
(Md. Abdul Khaleque)  
Consultant TAPP BREB

  
(Md. Ahsanul Haque)  
Consultant TAPP BREB

  
(Debasish Chakraborty)  
PD, TAPP BREB

  
(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

functions related to PBS Electrical Network System to study several parameters, such as, system loss study, fault current study, sectionalizing study, voltage drop study, block load study etc. The specific duties of the Electrical System Study Consultant during the study phase will include:

1. Procure and rectify single line diagram of PBS electrical network system with hundred percent accuracy;
2. System Data, such as transformers connected, conductor sizes of feeders, length of line, sub-station etc. in the form of SLD( Single Line Diagram), STD (Straight Line Data) and MPT(Mid Point Data) import from GIS database in Electrical System Study Software, such as WindMil, Cyme, ETAP (Engineering analysis software for electric network system) or similar type software using pre-designee macro. Correct/ rectify errors to import those data files into the said Engineering Analysis Software for Rural Electric Network System;

#### IV. PROCEDURE FOR SELECTION OF GIS DEVELOPER CONSULTANT

Electrical Network System Study consultant shall be selected as per PBS instruction 100-73. The following steps shall be maintained to the Consultant-

- Step-1: Preparing Terms of Reference (TOR) & Estimate shall be prepared by a committee of BREB/ PBS officers and approved by concern BREB Authority through Directorate of System Engineering and Design;
- Step-2: Invitation for EOI by the Directorate of System Engineering and Design of BREB or PBS through one Bangla and one English daily national newspaper. For necessary case as per PPR same invitation may be required to publish on web site of CPTU. PE will ensure that PPR clauses are correctly followed;
- Step-3: Formation of POC (Proposal Opening Committee) & PEC (Proposal Evaluation Committee) will be approved before EOI receiving;
- Step-4: Submitted EOI shall be opened by Proposal Opening Committee (POC);
- Step-5: EOI will be evaluated by Proposal Evaluation Committee (PEC);

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 2 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Masanul Haque)  
Consultant TAPP BREB

(Debashish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

- Step-6: PEC (Proposal Evaluation Committee) will make a short list on the basis of evaluation;
- Step-7: RFP document should be issued among the short listed Electrical Network System Study consultants;
- Step-8: Submitted Proposal shall have two parts (Technical Proposal and Financial Proposal);
- Step-9: Technical Proposal will be evaluated first by the Proposal Evaluation Committee. Number of short listed qualified applicant will be as per PPR. EOI will be evaluated as EOI Evaluation Form (Annexure-1) and short list must be approved according to DPP/DOFP (Delegation of Financial Power).
- Step-10: A letter will be issued to technically qualified and short listed consultants to attain financial proposal opening. Then Financial Proposal only of short listed technically qualified consultant will be opened in presence of Consultant (if any);
- Step-11: Financial Proposal of Technically responsive consultants shall be evaluated by PEC (Proposal Evaluation Committee). Technical Evaluation Form (Annexure-2) is enclosed herewith. Invitation letter shall be issued for negotiation with PEC with technically and financially lowest evaluated consultant (For LCS) and highest scorer(For QCBS). Next successive lowest evaluated consultant (For LCS)/highest scorer (For QCBS) will be applicable for negotiation, if previous negotiation is not successful;
- Step-12: Financial Proposal of non-qualified consultant shall be returned to the concern consultant/ applicant without open;
- Step-13: After successful negotiation, selected Electrical Network System Study consultant shall be invited for Contract Agreement after approval from concern authority.

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 3 of 11	-
Revision Date: -				


  
(Md. Mozfour Rahman)  
Consultant, TAPP, BREB

  
(Md. Ansanul Haque,  
Consultant, TAPP, BREB

  
(Md. Duhidul Islam)  
Consultant, TAPP, BREB

  
(Debasis Chakraborty)  
PD, TAPP, BREB.

  
(Md. Mozammel Hujj)  
Consultant, TAPP, BREB

  
(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB,

  
(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

## EOI Evaluation Form

PBS Name: -----

Project Name: -----

Package No.----- Sub-Package No. -----

Date of Evaluation: -----

Main Heading	Sub-Head	Description	Evaluation of Consulting Firm (Excellent/Very Good/Good/Poor)			
			Excellent	Very Good	Good	Poor
A) Brochures submitted by applicants summing their facilities and areas of expertise	(a) Farm Capability	1) Age of Firm: 2) Size of Firm: (i) Graduate in CES (ii) Graduate in Electrical Engineering (iii) CAD Operator				
	(b) Farm Logistics Support Capability	1) Office and Establishment Size 2) Computer, Software, Plotter, Scanner				
B) Description of Similar assignments	Experience of the Firm in similar and other works	Work completed in the last 10 years: 1) Electrical System Study Work in any utility 2) Similar Work in other than utility				
C) Experience in similar Operating Condition	Present Work Load of Firm	Work completed in last 10 years: 1) Electrical System Study Work in any				

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 4 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

(Md. Duhidul Islam)  
Consultant, TAPP, BREB

(Md. Mozammel Haq)  
Consultant, TAPP, BREB

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy (D), BREB.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

		utility 2) Similar Work in other than utility 3) Other Works				
D) Availability of appropriate experience and professional qualifications among applicants' staff and resources to carry out the assignment	a) Professional qualification and experience of the principal farm	1) Managing Director/ Chairperson (Graduate) with 20/15/10/5 years experience 2) Director (Graduate in Engineering) with 15/10/5/3 years experience				
	b) Professional qualification and experience of employees and other associates of the farm	1) System Analyst Cum Electrical System Study Specialist (Graduate in CSE/EEE) with 12/10/7 years experience 2) Software Engineer (Graduate in CSE/ EEE) with 5/4/3 years experience 3) CAD Operator (Civil/Architecture Diploma)/ HSC with AutoCAD expertise with 8/6/4/3				
E) Administrative	a) Administrati	1) No. of Board of Directors/				

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 5 of 11	-
Revision Date: -				

  
(Md. Mozibur Rahman)  
Consultant TAPP BREB

  
(Md. Duhidul Islam)  
Consultant TAPP BREB

  
(Md. Mozammel Huj)  
Consultant TAPP BREB

  
(Md. Abdul Khaleque)  
Consultant TAPP BREB

  
(Md. Ansumul Haque)  
Consultant TAPP BREB

  
(Debasish Chakraborty)  
D. TAPP BREB

  
(Kamrul Ahsan Mollah)  
Asst. Secy. (Board), BREB.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

Strength and financial capability	ve Strength	Organogram 2) Up to date Trade License & Income Tax, VAT Registration, TIN				
	b) Financial Capability	Yearly average yearly annual turnover considering last five years				

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 6 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

(Md. Duhidul Islam)  
Consultant, TAPP, BREB

(Md. Mozammel Huq)  
Consultant, TAPP, BREB

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Person), BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

## 2. PROPOSAL OPENING & PROPOSAL EVALUATION COMMITTEE

Proposal Opening Committee (POC) and Proposal Evaluation Committee (PEC) shall be formed before EOI receive. PEC will evaluate EOI and RFP (Request For Proposal) document.

## V. SELECTION OF CONSULTANT

After EOI evaluation, a short list will be prepared according to PPR(Public Procurement Regulations). The short listed consultant will be notified that the firm has been short listed by BREB/ PBS. After that RFP (Request For Proposal)document will be issued only to the short listed consultants, requesting to submit the same within specified date and time. After receiving RFP from short listed consultants, technical proposal will be evaluated by PEC. For better understanding an evaluation form is given below as Appendix-2. After completion technical proposal evaluation, PE (Procuring Entity) will obtain approval from HOPE. Then a letter will be issued to only technically qualified consultant(s) to attain their financial proposal opening. On specified date and time financial proposal of technically qualified consultants will be opened by PEC, in presence of consultants (if any). After evaluation financial proposal, a letter will be issued to the technically and financially lowest responsive consultant for negotiation with PEC. After successful negotiation, selected Electrical Network System Study consultant shall be invited for contract agreement.

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 7 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant, TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Absarul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB.

(Kamrul Ahsan Mollik)  
Asst. Secy

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০



## Technical Evaluation Form

Sl No.	Topic	Points Allocation		Points Obtained
		Total Point	Distribution	
1	Specific Experience of the Consultant in relevant to the assignment.	Max 10.00		
	System Study Work by Software in any electrical utility.		Max 6.00	
	Similar Study Work by Software in other than electrical utility.		Max 4.00	
2	Adequacy of the proposed methodology and work plan in responding to the Terms of Reference.	Max 40.00		
	(a) Technical Approach and Methodology.			
	i) Understanding of the objectives.		Max 12.00	
	ii) Quality of Methodology.		Max 8.00	
	(b) Work Plan.			
	i) Key Personnel Schedule.		Max 5.00	
	ii) Work Plan Bar Chart.		Max 5.00	
	(c) Organization and Staffing.			
	i) Organization.		Max 5.00	
	ii) Staffing Schedule.		Max 5.00	
3	Professional Staff qualifications and competence for the assignment.			
A	Team Leader (01 No.)	Max 12.00		
	i) General Qualification (Graduate in CSE/EEE/EE).		Max 2.50	
	ii) Adequacy for the assignment.		Max 1.00	
	a) No. of similar service (According to		Max	

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 8 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant, TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ansumul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollah)  
Asst. Secy. (Board), BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

	TOR) performed in last 10 years.		4.00	
	b) Year of relevant experience in proposed position (Up to two years for the said position 2.00 points and above two years full points).		Max 3.50	
	iii) Experience in region and language			
	For Bangladeshi and work experience in Bangladesh full points, otherwise 50% points.		Max 1.00	
B	Project Manager (01 No.)			
	i) General Qualification (Graduate in CES/EE/ EEE).		Max 2.00	
	ii) Adequacy for the assignment.		Max 1.00	
	a) No. of similar service (According to TOR) performed in last 6 years.	Max 10.00	Max 2.00	
	b) Year of relevant experience in proposed position (Up to two years for the said position 2.00 points and above two years full points).		Max 4.00	
	iii) Experience in region and language			
	For Bangladeshi and work experience in Bangladesh full points, otherwise 50% points.		Max 1.00	
C	System Study Specialist (01 Nos.)			
	i) General Qualification (Graduate in EE/EEE/CSE).		Max 3.50	
	ii) Adequacy for the assignment.		Max 1.50	
	a) No. of similar service (According to TOR) performed in last 6 years.	Max 7.5 × 2 = 15.00	Max 2.50	
	b) Year of relevant experience in proposed position (Up to two years for the said position 2.00 points and above two years full points).		Max 6.00	
	iii) Experience in region and language.			
	For Bangladeshi and work experience in Bangladesh full points, otherwise 50% points.		1.50	
D	Inspector (02 Nos.)	Max		
	i) General Qualification (Diploma in	4 × 2 =	Max	

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 9 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB.

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

১১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

	<i>Electrical/ Power).</i>	8.00	2.00	
	<i>ii) Adequacy for the assignment.</i>		Max 1.00	
	<i>a) No. of similar service (According to TOR) performed in last 2 years.</i>		Max 1.50	
	<i>b) Year of relevant experience in proposed position(Up to two years for the said position 2.00 points and above two years full points.</i>		Max 2.50	
	<i>iii) Experience in region and language</i>			
	<i>For Bangladeshi and work experience in Bangladesh full points, otherwise 50% points.</i>		Max 1.00	
E	<i>CAD Operator (02 Nos.)</i>	Max 5.00		
	<i>i) General Qualification (Diploma in Civil/ Architecture/Mechanical)/HSC.</i>		Max 1.50	
	<i>ii) Adequacy for the assignment.</i>		Max 0.50	
	<i>a) No. of similar service (According to TOR) performed in last 2 years.</i>		Max 0.50	
	<i>b) Year of relevant experience in proposed position(Up to two years for the said position 2.00 points and above two years full points.</i>		Max 2.00	
	<i>iii) Experience in region and language</i>			
	<i>For Bangladeshi and work experience in Bangladesh full points, otherwise 50% points.</i>		Max 0.50	

NB: Points of allocation may be changed depends on type of task/works

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 10 of 11	-
Revision Date: -				

  
 (Md. Mozibur Rahman)  
 Consultant, TAPP, BREB

  
 (Md. Duhidul Islam)  
 Consultant, TAPP, BREB

  
 (Md. Mozammel Haq)  
 Consultant, TAPP, BREB

  
 (Md. Abdul Khaleque)  
 Consultant, TAPP, BREB

  
 (Md. Ansanul Haque)  
 Consultant, TAPP, BREB

  
 (Debasish Chakraborty)  
 PD, TAPP, BREB

  
 (Kamrul Ahsan Mollik)  
 Asst. Secy. (Person), BREB.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

**VI. LIST OF PBS SOFTWARE BASED PBS ELECTRICAL SYSTEM STUDY WORK BY CONSULTANT**

Sl No	Item No.	Items Description	Unit	Quantity	Unit Rate	Total Price
1	SS-1	Block Load Study	Each Sub-Station			
2	SS-2	Power Factor Improvement Study	Each Sub-Station			
3	SS-3	System Loss Study	Each Sub-Station			
4	SS-4	Voltage Drop and Load Flow Study	Each Sub-Station			
5	SS-5	Sectionalizing Study	Each Sub-Station			
6	SS-6	Feeder Separation Study	Each Feeder			
7	SS-7	Fault Current Study	Each Sub-Station			

**NB: List of deliverables is included herewith below.**

**VII. SCOPE OF WORKS AND DELIVERABLES**

1. Import data of PBS electrical system from GIS or similar type of database with the help of data files STD (Straight Line Data), MPT (Mid Point Data) & SLD (Single Line Data);
2. Study each item of table of section (VI);
3. Develop macro to find out auto result of each item of table of section (VI).

**Deliverables:** Following items are to be delivered at no extra cost as the price is included in respective items in rate schedule.

- a) Soft copy of system study report (3 copies in different CDs/DVDS);
- b) Printed copy of system study report (3 copies).
- c) Knowledge transfer, support service, on job training etc.

BANGLADESH RURAL ELECTRIFICATION BOARD				
PBS Instruction 100-73: PROCUREMENT OF CONSULTANT FOR SOFTWARE BASED ENGINEERING STUDY OF PBS ELECTRIC SYSTEM				
Date of Origin	Revised by	Approved by	Page No.	Revision No.
19/02/2020	BREB	BREB Board	Page 11 of 11	-
Revision Date: -				

(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

(Md. Duhidul Islam)  
Consultant, TAPP, BREB

(Md. Mozammel Haq)  
Consultant, TAPP, BREB

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

(Md. Ansanur Raque,  
Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Kamrul Ahsan Mollah)  
Asst. Sec.

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০