

OFFICE OF THE CHIEF GENERAL MANAGER (PP&D),
BIJULEE BHAWAN, GUWAHATI-781 001



BID IDENTIFICATION NO:
AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/10 Date:08.02.2023

TENDER DOCUMENT FOR

NIT No.: - AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/12 Dated: 08.02.2023

Short Tender Notice No.: - AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/11 Dated:08.02.2023

NAME OF THE WORK: -

Preparation of Master Plan for 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex and 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including 132kV underground cable Route Survey for associated Transmission Line Link including remote end bay at existing 132kV Dhaligaon GSS under AEGCL and 220kV underground cable Route Survey for associated Transmission Line Link for connecting both above mention GIS.

Price: - ₹ 1000/-

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ASSAM ELECTRICITY GRID CORPORATION LIMITED

Regd. Office: 1stFloor, Bijulee Bhawan, PALTANBAZAR; GUWAHATI - 781001

CIN: U40101AS2003SGC007238

PHONE: 0361-2739520 FAX NO.0361-2739513

Web: www.aegcl.co.in Email: cgm.ppd@aegcl.co.in

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Short Tender Notice

No. AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/11

Dated: - 08. 02.2023

Chief General Manager (PP&D), AEGCL invites short sealed quotations in prescribed format from experienced contractor(s)/firm(s) having experience in survey works for execution of the following works of AEGCL.

Invitee: The Chief General Manager (PP&D), AEGCL

Name of Work: Preparation of Master Plan for 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex and 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including 132kV underground cable Route Survey for associated Transmission Line Link including remote end bay at existing 132kV Dhaligaon GSS under AEGCL and 220kV underground cable Route Survey for associated Transmission Line Link for connecting both above mention GIS.

Duration of Completion: Submission shall be within 30 days from date of issue of the work order.

Tender Fee (Non-Refundable): INR 1000/- (Rupees One Thousand) only.

Earnest Money Deposit (EMD): INR 20,000/- (Rupees Twenty Thousand) only.

Address: The Chief General Manager (PP&D), AEGCL, 1st Floor, Bijulee Bhawan, Ghy-781001

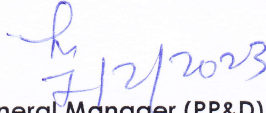
Issue of Tender Paper/Tender Start Date: On all working days from **08.02.2023**

Receipt of Tender Paper /Tender end Date: Till 12: 00 hrs of **27.02.2023**

Tender opening Date: 14:30 hrs of **28.02.2023**

In case the date of receiving of tenders happen to be holiday the next working day will be treated as receiving/ opening date of tender at the same time and place.

The undersigned reserves the right to reject the tender (partly or in whole) without assigning any reason thereof and does not bind himself to accept the lowest tender.


Chief General Manager (PP&D)
Assam Electricity Grid Corporation Ltd.



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Chapter-II

Scope of Work

The brief description of scope covered under this Bidding Document is furnished below:

- a) Preparation of detailed Master Plan required for initiating tender process of constructions of the 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex including preparation of BoQ.
- b) Preparation of detailed Master Plan required for initiating tender process of constructions of the 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including preparation of BoQ.
- c) Preparation of detailed Master Plan required for initiating tender for hooking up of existing generator of 11kV to 33 KV system, interconnection of existing 11 KV main distribution switchboards with new 33 KV main distribution bus, cabling, covering all Civil, Electrical, Mechanical & Instrumentation type of works at IOCL-BGR (Dhaligaon) complex, including preparation of BoQ.
- d) Preparation of SLD and Layout for remote end 132kV bay (Two No.) at existing 132kV Dhaligaon GSS, AEGCL including preparation of BoQ.
- e) Route Survey for the associated 132kV Double Circuit Under Ground Cable line from new 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex to Existing 132kV Dhaligaon GSS of AEGCL including preparation of BoQ.
- f) Route Survey for the associated 220kV Double Circuit Under Ground Cable line from new 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex to new 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including preparation of BoQ.
- g) Route Survey for hooking up of existing generator of 11kV to 33 KV system, interconnection of existing 11 KV main distribution switchboards with new 33 KV main distribution bus including preparation of BoQ.
- h) Preparation of BoQ of Supply, ETC, Civil Works etc. separately for point no. a), b), c), d), e), f) & g).
- i) The successful bidder shall clearly list out all the requirements for syncing of the Captive Power plant of IOCL-BGR with that of the Grid network.
- j) The different tasks need to be carried out in the scope of work are as laid out in the attached – schedule of work in Chapter V.

Note:

1. The 220 KV and 33 KV GIS Switchyard, Control Room and other associated facilities will be located inside Bongaigaon Refinery premises. Consultant shall review and finalize the equipment layout within the allocated plot plan at Bongaigaon Refinery envisaged under the project ensuring efficiency and cost effectiveness and compliance with the latest OISD and other guidelines & statutory requirements.
2. Contact Person for Site Visit/any query if required:
 - a) AGM, Dhaligaon Division, AEGCL Ph No.: 8473894987
 - b) AGM, BD, HQ, AEGCL Ph No.: 9706420782
 - c) DGM(MN-EL), IOCL, Bongaigaon Refinery Ph. No.: 7099019553



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Chapter-III

Instruction for Bidders and General Terms and Conditions

1. Sealed bids in prescribed format are to be submitted with Name of the Work, Tender Reference No./Short Tender Ref No. and Name of the bidder mentioned on the sealed envelopes containing the bids.
2. The tender shall be submitted in two separate parts, each in separate sealed covers superscribed as follows.
Part I – Technical & Commercial bid.Part II – Price bid.
3. Tender should be written either in ink or typed. No tender filled in otherwise shall be considered.
4. Every tender must be accompanied with Earnest Money amounting to INR 20,000/- in the form of A/C payee Demand draft/ Bankers Cheque pledged in favour of the Assam Electricity Grid Corporation Limited, Bijulee Bhawan, Paltanbazar, Guwahati-1, and Payable at Guwahati. Tenders without EMD / EMD of lesser amount shall be rejected outright.
5. The cost of the tender documents is Rs. 1000.00 (Rupees One Thousand) only in the form of Banker's Check /Demand Draft draft in favour of Assam Electricity Grid Corporation Limited, Guwahati-781001 and to be submitted along with the tender in 'Part I – Technical & Commercial bid'.
6. The rates against item(s) as detailed in the Schedule of Work (Chapter-V) are to be quoted as per the given schedules and shall be submitted along with the bid in "Part II – Price bid."
7. Every tender should quote rate of all items clearly both in figure and word. Taxes should be indicated separately in given columns.
8. The tenders should reach/ be submitted in the office of the Managing Director, AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-781001 on or before 12-00 hours on **27.02.2023**
9. The Part-I (Technical & Commercial bid) of the tender will be **opened at 14:30 hours on 28.02.2023** in the office of the Managing Director, AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-781001, in presence of the authorised representatives who desire to be present.
10. The Part-II (Price bid) of the bidders whose bids are shortlisted in the "Technical Evaluation" of Part-I (Technical & Commercial bid) shall be opened separately.
11. Tenders shall preferably be submitted in person or by registered post with AD. Tenders received late due to delay in postal/courier service/ late due to any other reason shall not be considered. The tenders received after due date and time shall be returned unopened by post.
 - (a) Telegraphic tenders / tenders sent by means of FAX shall not be considered
 - (b) If for any unforeseen reasons the date of opening of bid turns into a holiday, the tenders shall be opened on the next working day at the specified time
12. The tender shall be accompanied with the registration certificate / GST/ Income tax certificate etc. of the contractor/ firm etc. participating as the bidder.
13. The contractor must have registration with the concerned department of Government of Assam/Govt. of India.
14. The Contractor/Firm should produce work experience/completion certificate in the name of the Contractor/Firm of at least 1(one) complete work relevant to the tendered work, done within last 10 years.
15. All pages of the submitted bid by an intending bidder must be contain seal and signature of the bidder.
16. The Chief General Manager, (PP&D), AEGCL Circle reserves the right to reject any or all the tenders without assigning any reason thereof and further reserves the right to split up the supply order/ work order in favour of more than one contractor.



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17. The works vide the work order issued to the successful bidder must not be sublet.
18. No labour below 18 years should be engaged and contractor should have labour licence from competent authority.
19. The tender shall have to be submitted in the prescribed form only.
20. The tender shall be completed in all respect. Incomplete tender will not be considered and will be rejected.
21. The contractor will be responsible for safety of his materials.
22. Cost for construction of temporary building for storage of materials etc. house for contractor and staff should bear by the contractor. No rent will be paid by the AEGCL.

23. ELIGIBILITY CRITERIA:

(i) EXPERIENCE

Reputed and financially sound engineering firms/contractors having experience of successfully executing similar nature of work for minimum 132kV Voltage level during the last 10 years. (Submitted with supporting documents). *

Documentary Evidence of Experience in works of a similar nature and volume for each such work in the last ten years, and/or details of works presently under way or contractually committed and their respective clients.

(ii) CAPABILITY

- (a) Each bid shall be accompanied by a statement by the bidder declaring that he/she/it is a bona-fide engineering contractor and has in possession adequate equipment, qualified personnel to fill positions required for execution of the work.
- (b) The Bidder will provide information of the key personnel, design & engineering staff, support staff, field staff etc. proposed for the work along with details of their experience in similar nature of work.
- (c) The Bidder should also substantiate availability (either owned or leased) of the tools, tackles, spare parts etc. for carrying out the works.

24. Supervising Authority: The work shall be carried out under supervision of the AGM Dhaligaon Division, AEGCL.

25. Approving Authority: The CGM (PP&D), AEGCL shall give final approval to the submitted report. After approval, the contractor shall submit the report(s) to this office as follows:

Hard Copies: 6 nos. of approved hard copies Soft Copies: 6 nos. in USB drives.

All data is to be submitted in AutoCAD format, PDF as well as hard copies (Coloured) as referred above.

Note: The firm shall submit both the soft and hard copies of the drawings during R0 submission. Further revisions shall be submitted in soft copies. Final approved drawings in soft copy format shall be submitted in hard copy format for final approval and necessary seal and signature.

26. Execution of Work: The execution of work shall be done in the presence of AEGCL officials/representatives. The successful bidder before beginning of the work shall intimate AEGCL regarding their readiness to initiate the work.

27. Liquidated Damage: The date of completion of work shall be deemed as the essence of the work order and shall not be completed no later than the time specified in the contract. In case of failure, AEGCL shall be entitled to recover an amount at the rate of 0.5% of the contract price per week subject to maximum of 10% of the work order value as liquidated damage of AEGCL. However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the work.

28. Performance Guarantee: A DD/BG for an amount equivalent to 10% (ten percent) of the total value of the work will shall have to be submitted as performance security within 3 days from date of issue of the W.O. and



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the said BG/DD shall be valid for a period of upto 3(three) months from the date of issue of W.O. After successful completion of the work and on completion of the period, the BG/DD shall be released on written request from the bidder.

29. Income tax shall be deducted at source. GST as per the GST norms shall be paid to the contractor.
30. The contractor should produce experience of such work executed earlier with supporting documents.

31. BIDDER SHOULD EXAMINE & UNDERSTAND

All prospective bidders are required to thoroughly study and carefully examine all the terms and conditions, instructions, requirements & specifications pertaining to the work and visit the field of work to fully satisfy and acquaint themselves about the nature and location of work, the configuration of the ground, the surface conditions, quality and quantity of materials required and the type of equipment and facilities needed preliminary to and during the execution of the work and local conditions which may affect the work or cost thereof. Failure to do so will be at the bidder's risk.

32. Any condition not included herewith will be applicable as per the "GENERAL CONDITIONS OF SUPPLY AND ERECTION-2009" OF AEGCL.

Handwritten signature or mark in blue ink.



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Chapter -IV

BIDDER DETAILS

Tender Notice No. AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/12 Dated: 08.02.2023

Name of work: **Preparation of Master Plan for 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex and 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including 132kV underground cable Route Survey for associated Transmission Line Link including remote end bay at existing 132kV Dhaligaon GSS under AEGCL and 220kV underground cable Route Survey for associated Transmission Line Link for connecting both above mention GIS.**

Name of Bidder: -

Address: -

Bidder's Contact Official/Representative

Contact No:

Email Id:

Contact No:

PREVIOUS EXPERIENCE (As per Clause 15, Chapter-III):

(Make a list of your works of similar nature executed/completed by you along with supporting documents and enclose sheets if necessary).

DECLARATION (As per Clause 15, Chapter-III):

Manpower & Equipment(s) List (As per Clause 15, Chapter-III):

Seal and Signature of the Bidder.

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Chapter -V

SCHEDULE OF WORK

(To be filled up and submitted separately as part of the 2nd Envelope i.e Part-II – Price BID)

From

.....
.....
.....

To

The Chief General Manager (PP&D), AEGCL,
1st Floor, Bijulee Bhawan, Ghy-781001

Sub: - Submission of Tender for the Work – “NAME OF THE WORK”.

Ref: Your Tender Notice No. AEGCL/MD/Tech-750/IOCL-BGR/220kV Power/2018/Part File-I/12 dtd: -08-02-2023

Sir,

Having thoroughly examined all terms and conditions of the NIT and having clearly understood the scope and specifications of the work to be executed as incorporated in the tender specification, I/We.....am/are submitting my/our rates for the work as follows;

1. NAME OF WORK: Preparation of Master Plan

Sl. No.	Details	Units	Qty.	Unit Rate	GST	Amount
1	Preparation of Master Plan for Constructions of the 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) complex along with preparation of SLD and Layout for remote end bay at existing 132kV bay at existing 132kV Dhaligaon GSS, AEGCL including preparation of BOQ as per scope of the work and technical specification.	Job	1			
2	Preparation of Master Plan for Constructions of the 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex and hooking up of existing generator of 11kV to 33 KV system, interconnection of existing 11 KV main distribution switchboards with new 33 KV main distribution bus, cabling, covering all Civil, Electrical, Mechanical & Instrumentation type of works for above facilities including preparation of BOQ as per scope of the work and technical specification.	Job	1			

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Web: www.aegcl.co.in Email: cgm.ppd@aeqcl.co.in**2. NAME OF WORK: Route Survey (for XLPE power cable & FO cables) for associated Line**

Sl. No.	Description of Work / Item(s)	Qty	Units	Unit Rate	GST	Amount
1	Route Survey for the associated 132kV Double Circuit Under Ground Cable line from new 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) Complex to Existing 132kV Dhaligaon GSS of AEGCL including preparation of BoQ as per scope of the work and technical specification.	1	Job			
2	Route Survey for the associated 220kV Double Circuit Under Ground Cable line from new 220/132/33kV GIS for AEGCL at IOCL-BGR (Dhaligaon) Complex to new 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon) complex including preparation of BoQ as per scope of the work and technical specification.	1	Job			
3	Route Survey for the associated 33kV interconnection between 220/33kV GIS and existing 11kV substation at IOCL BGR complex including preparation of BoQ as per scope of the work and technical specification	1	Job			

Signature of the Bidder

3. TECHNICAL SPECIFICATIONS FOR REFERENCE OF THE BIDDERS

3.1 TECHNICAL SPECIFICATIONS FOR ROUTE SURVEY FOR EACH ROUTE:

Route Survey (for XLPE power cable & FO cables)

The bidder shall fully familiarize itself with the site and route conditions etc. The bidders are advised to visit the site and acquaint themselves with the topography, infrastructure etc. The contractor shall be fully responsible for providing all equipment, materials, system and services specified or otherwise which are required to complete the preparation of cable route including BoQ, of all cables in all respects. All materials required for the Civil and construction/installation work shall be specified in the BoQ by the Contractor. The survey shall be conducted for underground routes to finalize the route and paths for the underground cables including location of straight through joints. The survey shall inter-alia include the following minimum activities:

Map Study: The Contractor shall arrange topographical maps and other maps of the concerned area in proper scale. All links shall then carefully be studied using maps. Various feasible alternative routes shall be identified on the maps and the Contractor shall shortlist most suitable route and submit to owner for its approval.

Collection of details of other utilities: Contractor shall arrange information about existing underground facilities for the proposed routes. To do so as built drawing or route index diagram for various services viz water works, electric supply utilities, telecom services providers, public health, gas/oil authorities etc. may be collected from the authorities concerned. In case details are not available, the Contractor shall assess suitably by conducting enquiries and surveys and submit to owner for its approval.

Identification of cable route of underground power cables & Fiber Optic Cables:

The Contractor shall propose most suitable route for link keeping in view the following broad criteria:

1. The route shall be as straight and as short as possible.
2. Wet or unstable ground shall be avoided to the extent possible.
3. The route for the cables shall be away from the carriage-way of the road to the extent possible.
4. The route shall be suitable for placing manholes wherever required.
5. Future expansion of roads shall be taken into consideration to the extent possible.
6. Road, rail, river, culvert (nallah) crossing, trenchless digging shall be minimum.
7. As far as possible underground cable route shall be on the opposite side of the existing cables laid by DOT/BSNL or other utilities. Wherever both routes fall on the same side of the road, a spacing of about 2.0 m is to be maintained, to the extent possible.
8. Care must be taken to avoid choosing routes, roads, areas that are prone to floods etc.

The Contractor shall submit the survey report and BoQ with the most suitable route for cable links along with details above to owner for its approval.

3.2 TECHNICAL SPECIFICATIONS FOR MASTER PLAN FOR EACH SUBSTATION:

Preparation of detailed layout drawing, design, calculations and BoQ (for Supply, F&I, ETC & Civil Works) as required for Proper Substation construction and switchyard details. The brief list of deliverables is given below:

3.2.1 Construction of two (2) nos. of permanent RCC benchmark pillars at suitable locations - all future references shall be obtained from them. Size of the pillar should be minimum 300mm X 300 mm. Determination of HFL, FGL & RL. HFL & FGL markings should be shown in the benchmark pillar, for each substation.

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3.2.2 For each substation, survey of the entire land area of the GSS in 5 m X 5 m grid marking with RL using total station and submit on AutoCAD, scaled drawing and marking by peg on the field. **

3.2.3 Marking the switchyard including all building, Cable trench, control room, incoming and outgoing feeders, etc. on auto CAD scaled drawing and marking by peg on the field. **

3.2.4 Planning and marking of security booth, security barrack, store room, internal roads, external roads, drainage system, storm water management etc. on AUTOCAD drawing **

3.2.5 Planning and marking on AutoCAD drawings about street lighting, boundary wall with security post, security fencing illumination etc. **

3.2.6 Planning, estimation and marking on AutoCAD drawings about boundary wall and gate with details of entire substation**

3.2.7 GA and Layout Drawing for Water supply arrangement, drinking water system, HVWS, rain water drainage, rain water harvesting system and provision for bore hole / overhead tank.

3.2.8 Bill of quantity for PCC Road external and internal with cross drainage, box culvert, switchyard PCC & graveling, rain water drain, remote end bay etc. with details of entire substation.

3.2.9 The CONSULTANT shall prepare the Project Implementation strategy. The implementation strategy should be based on their experience on implementation of similar projects which are successfully completed.

3.2.10 Preparation of Master Project Schedule for mechanical completion, commissioning of the project including pre-project works

3.2.11 Finalize plot plan along based on equipment sizes, site restrictions, maintenance & shutdown considerations, operational, safety, construction access and statutory requirements like Oil Industry Safety Directorate (OISD) etc.

3.2.12 Preparing following for Proper Substation Construction

- 3D Layout Drawing.
- SLD.
- Plan and section Layout Drawing to scale along with SLD clearly specifying the schemes on AutoCAD.
- Site layout plan.
- All Building Layout Drawing with trench layout.
- All building architecture layout including plan, elevation and section.
- Calculation of earth volume.
- LTAC and LTDC SLD.
- Outdoor & indoor Cable Trench Layout.
- Control room Building drawing with trench layout.
- Battery and battery charger sizing calculation.
- Earth Resistivity test with four-point megger.
- Fault Level Calculation.
- Conductor Sizing Calculation.
- Earthmat layout and Calculation.
- DSLP layout and Calculation.



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- SCF calculation and structural layout.
- Illumination layout and calculation.
- Erection key diagram.
- Preparation of vendor list.
- Station Service & Power Transformer sizing calculation for 220/33kV GIS for IOCL-BGR at IOCL-BGR (Dhaligaon).

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**HFL & FGL: Should be marked in the master plan(s).

Note: Every drawing shall be as per norms of Oil Industry Safety Directorate (OISD)

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