



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)

Registered Office : Vydyuthi Bhavanam, Pattom, Thiruvananthapuram -695004

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Abstract

Execution of Anakkayam SHEP- Tender condition on turnkey basis- Sanctioned - Orders issued

CORPORATE OFFICE (SBU-G/C)

B.O(DB) No 663 /2020 (DGC/AEE VI/AKYM/2014) Thiruvananthapuram, Dated 04.11.2020

- Read :1. B.O (DB) No. 542 /2019(DGC/AEEV/ AKYM/2014) Thiruvananthapuram, dated 12.07.2019.
2. Office Order (DGC) No.1836/2019 (DGC/AEEVI/AKYM/2014) dated 23.10.2019
3. Report submitted by the committee on 13-01-2020 and its corrigendum on 29-02-2020.
4.Note No.FA/Tender-1/2/2020 dated 21.01.2020 of the Financial Advisor.
5.Note No.LA &DEO/R/23/2020 dated 27.02.2020 of the Legal Advisor & Disciplinary Enquiry Officer.
6. Notes No.CE (C-ICC/4/Anakkayam SHEP/2018-19 dated 6.03.2020 , 13.05.2020,07.07.2020 & 25.09.2020 of the Chief Engineer (C-I&CC)
7. Note No.DGC/AEEVI/AKYM/2014 dated 01.10.2020 of Director (Generation-Civil)-(Agenda 13/10/20)
8.Note No.DGC/AEEVI/AKYM/2014 dated 05.10.2020 of the Chairman & Managing Director.
9.Proceedings of the 55th meeting of the Board of Directors held on 14.10.2020 vide Agenda No.19-10/2020.

ORDER

Anakkayam Small Hydro Electric Project is in Chalakudy basin in Thrissur District. It is purely a tailrace development of the Sholayar Hydro Electric Project without any additional storage/submergence. The power that can be generated from Anakkayam SHEP is assured and is having high value because the generation mainly occurs in the summer season due to assured release of 12.3 TMC of water at Kerala Sholayar Power House as per PAP (Parambikkulam Aliyar Project) Agreement.

KSEBL as per B.O read as 1st above has accorded Revised Administrative Sanction for the implementation of Anakkayam SHEP for an amount of Rs 139.62Crore (One Hundred and Thirty-Nine Crore and Sixty-Two Lakh Only) including GST and directed the Chief Engineer (C-I&CC) to float a Request for Proposal for the execution of the project with all the requirements in terms of technical specification, guarantee etc. on turnkey basis.

The Chief Engineer (C-I&CC).as per note dated 06.03.2020 reported that as KESBL has not executed any Hydro Electric Project on turnkey basis in the recent time, the pre-Qualification Document (Vol.I) and Conditions of Bid & Contract (Vol.II) were prepared by suitably modifying the approved tender documents of the Board and also taking some inputs from Alternate Hydro Energy Centre (AHEC) Guidelines for Model Contract for execution and supplies of Civil and E & M works. A committee was also constituted as per Office Order read as 2nd above for scrutiny and vetting of the tender document prepared by the Chief Engineer (C-I&CC). As suggested by the committee,

remarks of Financial Adviser and Legal Adviser & Disciplinary Enquiry Officer were also obtained on certain clauses. Further to this, the outcome received from the meeting convened by the Chairman & Managing Director with Full Time Directors, the Chief Engineer (Civil-I&CC), the members of the committee constituted for vetting the draft tender document, were also incorporated in the turnkey tender document furnished by the Chief Engineer (C-I&CC) as per note dated 25.09.2020 read 6 above. The major changes made in turnkey tender document from the Standard Bid Document of KSEBL are the Schedule of Prices/BoQ and the Schedule of Stage Payments, extra item/excess quantity, additional works etc.

The matter of according sanction for the clauses having major modification from the Standard Bid Document of KSEBL was discussed in detail as per note dated 01.10.2020 read 7 above in the meeting of the Full Time Directors held on 13.10.2020 and the Full Time Directors resolved to place the matter before the Board of Directors.

Accordingly, the matter was placed before the Board of Directors as per note read as 8th above. The Board of Directors in its 55th meeting held on 14.10.2020 discussed the matter in detail. The Additional Chief Secretary (Finance) observed that the modification in tender condition for Anakkayam SHEP can be considered on a pilot basis and also on the condition that realistic DPR shall be duly vetted by the Technical Sanctioning Authority. The Chairman & Managing Director stated that rolling out the method of executing works by turnkey basis may be considered in future for all projects of Generation wing of KSEBL based on the outcome of the pilot project.

After discussion, the Board

RESOLVED to accord sanction for the modification to the clauses as appended in Annexure, in the Standard Bid Document for the execution of Anakkayam SHEP on turnkey contract as a pilot project, on the condition that realistic DPR shall be duly vetted by the Technical Sanctioning Authority.

Orders are issued accordingly. The Chief Engineer (Civil- Investigation & Construction Central) shall take further action in this regard.

By Order of the Full Time Directors

Sd/-

LEKHA.G

Company Secretary i/c

To: ✓ The Chief Engineer (Civil - Investigation & Construction Central)

- Copy to:
1. The Financial Adviser/ The Chief Internal Auditor
 2. The RCAO/RAO
 3. The Deputy Chief Engineer (IT)
 4. TA to CMD/ Dir(D&IT&HRM)/ Dir(T,SO&REES)/Dir (GE&SCM)/Dir(Plg&S)/Dir(GC)
 5. PA to Dir (F)/Company Secretary
 6. FC Supdt/ Librarian/Stock file / File

Forwarded / By Order

Phika

Assistant Executive Engineer

അനുബന്ധം B.O.C.D.B) No 663/2020 (DWC/AEEV/AKYM/2014)

എബിഡി വിജയിച്ചതായി അറിയിച്ചതും തീയതി 04/11/2020

MODEL TURNKEY BID DOCUMENT FOR ANAKKAYAM SHEP

Extract of clauses with major modifications

VOLUME I – Pre-Qualification Bid

27. Qualification Criteria for Financial Capability

27.1 The bidder should have a total annual turnover of not less than Rs 90 Crores (75% of PAC) during the last three financial years. In case of joint venture, all partners combined shall meet the requirement. However, the lead member shall have total annual turnover during the last three financial years of not less than Rs 36 Crore (30% of PAC).

27.2 Solvency Certificate from the Bank / Revenue authorities specifying a solvency amount of Rs 60 crore (50% of PAC) shall be uploaded. Solvency certificate issued within a period of 6 months prior to the last date of submission of the bid shall be treated as valid.

The assessment of the Applicant's total annual turnover for the last three financial years shall be based on the audited annual accounts audited by a practicing chartered accountant and submitted by the bidder.

In case the annual accounts for the latest financial year are not audited and therefore the applicant could not make it available, the Applicant shall give an undertaking to this effect and the statutory auditor (practicing chartered accountant) shall certify the same. In such a case, the applicant shall provide the un-audited Annual Accounts (with schedule) for the latest financial year, duly certified by the Statutory Auditor (practicing chartered accountant) as well as Audited Reports for three years preceding the latest financial year.

29. Qualification Criteria for Technical Capability

29.1 The bidder should have satisfactorily completed civil works of at least one Hydro Electric Project during the last ten years as on the date of notice inviting bid and the same is in successful operation for a minimum period of two years. In the case of Consortium, all partners combined need to meet the requirement. The bidder shall have sufficient

experience as an individual/as a consortium member in the execution of tunnel driving works of length of at least 1km.

- 29.2 The bidder shall be an established indigenous manufacturer of hydraulic turbines who has designed, manufactured, supplied, erected and commissioned a turbine of unit capacity of at least 2.5 MW of same type envisaged for the project as a bidder during the last ten years as on the date of notice inviting bid and the same shall be in successful operation for a minimum period of two years. The bidder shall provide documentary evidence to establish their claim including Supply order, Performance of the machine and certificates from engineer in charge (with contact address) of the generating station regarding the performance of the machine for the past two years. He can also be a turnkey contractor with experience of similar SHP/HEP works. All other machines/parts/equipment required for the satisfactory completion of the project shall also be indigenous. In the case of Consortium, all partners combined need to meet the requirement. However a consortium partner's experience/ capability in his specific area of work /service will be considered only if it is in his scope of work as per the consortium agreement.

VOLUME II Conditions of Bid and Contract

4.1 Bid Prices

“Bid Price shall mean Total Contract Price quoted by each bidder in this proposal for the complete scope of works”

The bid prices offered shall be for the turn-key execution of Anakkayam Small Hydro Electric Project in Chalakkudy river basin in Thrissur District of Kerala State having an installed capacity of 7.5MW(3x2.5MW)/22.83 Mu with all necessary and sufficient components and items of work required for the successful investigation, designing, planning, care and diversion, execution, completion and commissioning of the project and structures appurtenant thereto of the project as well as guaranteeing satisfactory performance of the project during the defect liability period.

The scope of the work under the contract is elaborated in Clause 2.2.3, Volume III C, Volume V and elsewhere in this document. Instructions and formats for quoting bid prices are given in the volume IV 'Schedule of Technical Particulars and Prices'. The bidders shall study the cost for completion of each item of work required and arrive at single price for each item after precise assessment of site condition, cost of labour, material, transportation, equipments, tools and plants as well as incidentals involved.

The prices quoted by the bidders shall be firm during the period of contract and shall not be varied or adjusted on whatsoever reason on any account. The contractor shall take care of all his men, machinery, finished work and ensure sufficient protection of work site from flood, fire, earthquake, slip and similar other natural calamities. In such an event, the contractor shall make his own arrangement for the rectification of damage or loss at his own cost and no compensation shall be paid by the Board on whatsoever reasons on any account.

The bidder shall quote price inclusive of all expenses, all taxes, insurance, freight and levies applicable as per prevailing Acts and Rules except GST. The subject contract comes under the category of work contract services as per GST Act. The input tax credit available to the bidder under GST Act should be factored in the basic price while quoting the price. The applicable GST on work will be paid to the contractor on mandatory production of GST invoice, along with CC/ invoice bills. Eligible claims on account of taxes in accordance with the provision of GST Act and rules will only be entertained. KSEBL is a registered dealer under GST Act and GSTIN number of KSEBL is 32AACK2277NBZ1. Any new tax introduced after the last date of submission of bid will be reimbursed by the Board.

4.9 Alternate Offers (deleted)

5.1.6 Contract systems

The works contained in this contract are to be executed under Turnkey contract system. The scope of work under the contract is elaborated in clause 2.2.3 of this volume, Vol III C and Vol V and the contract price shall cover the entire scope of work.

5.1.6.1 Percentage rate contract system (Deleted)

5.1.6.2 Item rate contract system (Deleted)

5.1.6.3 The contractor has to do all investigations, designs and estimate preparation and quote the amount for each item in the Schedule of Price/ BOQs. The contractor shall also submit a microschedule for progressive payments/ cash flow schedule with milestones for the contract price in pdf format. The schedule of progressive payments of the lowest bidder shall be examined to ascertain whether the cash flow schedule is reasonable and negotiations will be held with the lowest bidder to arrive at a mutually agreeable schedule for progressive payment.

5.1.7 Amount of contract

The amount of contract under the contract will be arrived at by adding the agreed amounts of items in the accepted schedules of volume IV- Schedule of technical particulars and prices as per the terms of contract.

5.1.16 Adoption of CPWD Schedule of rates

The DSR is adopted by the Board for estimating purpose wherever applicable. But the price agreed by the contractor shall be based on contractor's own judgement on cost of labour, materials, transportation, chargeable expenses etc, he has to pay during the period of contract and for the extended periods if any. However the price arrived by contractor shall be comparable to that arrived using DSR. No claim for revision of price agreed to will be allowed on any account during the period of contract. The CPWD may or may not revise the Schedule of rates during the period of contract or duly extended period if any and the contractor shall not make any claim on the basis of said revision by the CPWD as the price agreed to by the contractor shall be firm during the period of contract and extended period if any.

5.2 PAYMENTS

5.2.1 General

The contractor shall prepare and submit to KSEBL/ Engineer in charge, for approval a Micro schedule for progressive payments/ cash flow schedule in pdf format along with the bid. Care shall be taken to avoid front-loading in the cash flow schedule. Negotiations shall be held with the lowest bidder for arriving at a mutually agreeable cash flow schedule before awarding the work. The Micro schedule for progressive payments/ Cash Flow Schedule of the Contractor setting forth his starting and completion dates for the various key phases of works prepared as per condition in relevant Clause of this General Condition shall be inter linked with the Schedule of stage payments (see Table below). The aggregate sum of the Contractor's price break-up shall be equal to the Total Contract Price.

Table(i) – SCHEDULE FOR STAGE PAYMENT

SL.NO	DESCRIPTION	Percentage of Contract Price to be released on completion of component
	Part I – Civil and Hydromechanical	
I	DESIGN AND ENGINEERING	2
II	INTAKE, SURPLUS CHANNEL, FOREBAY	10
III	TUNNEL, ADIT	61
IV	SURGE	4
V	PENSTOCK	9
VI	POWER HOUSE	8
VII	POWER HOUSE ROAD	2
VIII	SURGE ROAD	1
IX	ADIT ROAD	1
X	DEVIATION ROAD	2
	Total	100
	Part II – E&M	
	Supply of E&M Equipments including Design and Engineering	70
	Erection Testing and Commissioning of E&M Equipments	30
	Total	100

Table (ii)- Schedule of stage Payment for Design and Engineering of Civil and Hydro-mechanical works

Sl. No.	Description	Percentage of quoted price for Design and Engineering
a	On submission and approval of all drawings and data	70%
b	On submission and approval of final As-built drawings of all disciplines, O&M manuals, training, erection and commissioning hydromechanical equipments and completion report	30%

No work will be paid unless it is fully in accordance with the approved designs, specifications and satisfaction of Engineer-in-charge. If by inadvertence, any bad work, incomplete work or unsatisfactory work happened to be passed and paid for, the Engineer-in-charge shall have the right to recover the amounts so made at any time.

Upon satisfactory progress of work, the contractor will be eligible for part payments based on the agreed Micro schedule for progressive payments/ Cash Flow Schedule. Part payment will be made after observing all procedures and formalities of the Board, as per the agreed Micro schedule for progressive payments/ Cash Flow Schedule. Payment will be made through RTGS/NEFT to the Bank Account in India of the bidder after required checking and auditing. The RTGS/NEFT charges shall be borne by the contractor. The amount of a bill will be arrived at based on the agreed Micro schedule for progressive payments/ Cash Flow Schedule duly verified and approved by the Engineer in charge for each items of work and as per the agreed price.

If any amount due to the contractor by virtue of this contract, but not claimed for payment for 3 months from the date on which it falls due, the same will be placed on the deposit account and if it remain unclaimed for 3 years, the contractor shall have no claim on such amount and will be finally credited to the account of the Board.

Every interim payment certificate shall certify the Contract value of the works executed upon the date mentioned in the application for the payment certificate, provided that no sum

shall be included in any interim payment certificate in respect of the works that does not comply with the Contract, according to the decision of the Engineer in charge.

The Board may withhold the whole or part of any payment for the work claimed by the Contractor, which in the opinion of the Board is necessary to protect the Board from loss on account of.

- i. Defective work not rectified or guarantees not met.
- ii. Failure by the Contractor to make due payments for materials or labour employed by him.
- iii. Claims filed against the Contractor.
- iv. Loss to another Contractor directly employed by the Board.
- v. Insufficient progress.
- vi. Damage or loss of property of equipment of the Board.
- vii. Non-return of material/ equipment supplied by the Board when the same is due and
- viii. If legal cases instituted by the local government or default of the Contractors.

The Contractor will be paid the quoted Contract Price on satisfactory commissioning and completion of the project. All interim/stage payments made to the Contractor shall be reviewed on quarterly basis and reconciled with the cash flow schedule. Over payments/under payments made, if any, shall be adjusted in the next progressive bill.

Interim/ stage payments to be released to the Contractor shall be subject to the condition that the physical progress achieved at the site by the Contractor is consistent with the indicated in the agreed detailed construction programme chart in respect of these activities. Interim/stage payments will be regulated as follows (clause 5.2.1.1 to 5.2.1.4)

5.2.1.1 All payments released to the contractor shall be subject to recoveries and other dues if any as per the terms of the contract.

5.2.1.2 For all works, 90% of the payment shall be made based on accepted microschedule for progressive payments / cash flow schedule and as assessed and certified by the Engineer-

in-charge. 10% balance payment on commissioning of the project after submission of "As Built" drawings in seven sets.

5.2.1.3 Progressive Payment to be released to the Contractor shall be subject to the condition that the physical progress achieved at the site by the Contractor is consistent with that indicated in the progress schedule in respect of these activities.

5.2.1.4 Payment of Total Contract Price is guaranteed on successful completion and commissioning of project subject to recoveries and other dues if any as per the terms of the contract

5.2.2 Percentage Rate Contract System (deleted)

5.2.3 Item Rate Contract System (deleted)

5.2.4 Preparation and payment of bills

5.2.4.1 Part Bills/ interim payment certificate

Normally in the first week of each month, the contractor may apply to the Engineer-in-charge with a detailed bill (invoice) in triplicate in the prescribed format for all works executed by him during the preceding calendar month setting forth in the order of the schedule and the Engineer-in-charge or his nominee shall perform all checks as prescribed in the IS codes and department codes, necessary for checking the contractor's bill. If the contractor does not cooperate with the Board in the verification process, it shall be lawful for the Board to carry out verification in his or his agent's absence, but in the presence of a respectable person.

Results of such verifications shall be binding on the contractor. The bill submitted by the contractor will be verified by the Engineer-in-charge and arranged for admissible payments within a time reasonable after observing all the formalities of Board required for scrutiny, checking and auditing and after deducting all amounts due from the contractor.

Intermediate payment/ progressive payment against bills will only be made as advance to be credited to the Board in the final settlement of account with contractor and not as payment for the works completed and passed and the making of any such payments shall not preclude the Engineer-in-charge from requiring the contractor to remove or reconstruction or re-erect any work on the ground that such work is faulty, unsound, imperfect or unskilled or prevent the Board from enforcing any claim against the contractor on account of any default by him or conclude, determine or affect in any way the powers of the Engineer-in-charge under these conditions or any of them as to the final settlement and adjustment of the accounts.

The part bill submitted by the contractor shall be eligible for payment only if a certificate by the Engineer-in-charge is provided. If any liabilities, penalties, taxes etc. are outstanding or any amount is due from the contractor on any account, the same shall be recovered from the passed part bills.

All statutory recoveries as per relevant statutes will be deducted from the bills. Recoveries on account of services such as electric supplies etc and on account of expenditure if any incurred by the Board on contractor's behalf shall be made in full from intermediate payment from the contractor.

The contractor shall give four days advance notice in writing to the Engineer-in-charge that the work will be ready for measurement. The contractor shall not cover up any part of the work or place it beyond the reach of measurement until the work is measured to the correct dimensions by the Engineer-in-charge and consent in writing to do so from the Engineer-in-charge has been obtained. If the contractor covers up any work or places it beyond the reach of measurement without such a consent or before the expiry of the period mentioned in his notice, he shall do at his own expenses all what is necessary to present such work for measurement. In case he fails to do so, he shall forfeit the price of such work and the cost of such materials used in its construction.

The contractor shall be entitled to receive periodic intermediate payment on submitting the consolidated bills provided the bills are in order in every respect and are for the actual cost of the work carried out and approved by the Engineer-in-charge or his nominee. In case any item of work is not in order in any respect, the items will be deleted from the bill. This however, does not preclude the inclusion of such item by the contractor in his next bill or bills, after rectifying the defects.

5.2.4.2 Final Bills

The contractor shall submit his final bill in the prescribed form in triplicate within one month of the completion of the entire work. Final payments shall be made only when the Engineer-in-charge has given a certificate of completion of work as per clause 5.1.11. of conditions of contract. Final verification will be made on the completion of the work and payment will be given to the contractor on the basis of verification so made and certificate of completion after adjustment of all outstanding recoveries and all amounts due to the Board as per the terms of the agreement. Payment of final bill will not be considered as a conclusive evidence for the sufficiency of any work or material or correctness of measurements to which it relates and it shall not relieve the contractor from his liabilities arising from any defects.

The Engineer-in-charge shall have the right to take over the works once it has been tested, commissioned and made operational. At the time of taking over, if any, minor works are seen left undone, such works can be got done by the Engineer-in-charge, for which twice the amount admissible for such items as per the contract can be retained from the final bill and settled.

5.2.4.3 Final Payment

Final payment will be made after issue of final acceptance certificate by the Engineer-in-charge and after adjustment of all outstanding recoveries on account of advance payment made to the contractor, liquidated damages and other recoveries or amounts due from the contractor. Full credit shall also be given to the Board for all intermediate payment to the

contractor made in accordance with clause 5.2.4. The amount of performance security shall be refunded to the contractor, after he has cleared all camp site and has handed over all Board's land as per contract or after the expiry of the defect liability period, whichever is later. If there is a dispute on any item, the payment, against such item shall be withheld and balance payment shall be made to the Contractor.

The contractor shall, before the final payments, obtain and furnish to the Engineer-in-charge satisfactory evidence that work is fully released from the claims, liens and demands from all other concerned Govt. Agencies like district administration, local authorities & sales tax etc., furnish all documents secure and furnish his written consent and of his sureties to acceptance of final bill hereunder. The acceptance of final payment by the contractor shall release Board from all claims and liabilities to the contractor for all work done and material furnished in the execution of the contractor.

Final payment or any other payment shall, however, not serve to release the contractor or his sureties from their obligations under or in connection with this contract.

Subject to the conditions here in above the last final payment for the components of the work shall be made to the contractor only after commissioning of the project after submission of "As Built" drawings in 7sets and clearing all punch points and satisfying all other conditions as per relevant clauses.

5.2.5 Checks and Measurements

The Engineer-in-charge shall ascertain and verify that each individual item in the microschedule has been executed as specified else where in this contract and as per the I.S.S and as per the relevant standards / specifications and as per approved drawing. The contractor shall be paid contract price for the work done based on the microschedule for progressive payments/cash flow schedule in accordance with the above clause. The contractor or the person authorised by the contractor for the purpose shall affix his dated signature in token of acceptance in the KSEBL's documents.

When required the engineer in charge will give notice to the contractor or the person authorized by the contractor for the purpose, to verify/ measure any part of the work and he shall attend forthwith to assist the engineer in charge for making such verifications/measurements and make available all necessary labour and other facilities at the cost of the contractor. He shall also supply all particulars required by the engineer in charge . If the contractor or the person authorized by him does not attend or neglect to do so then the verification/measurement made by the engineer in charge shall be taken as final for such part of work and the value of work shall be deduced accordingly.

5.2.16 Escalation

The price agreed and forming part of the contract shall be firm during the period of contract and also during the extended period of contract if any. No escalation will be allowed on

whatever reasons and grounds. The contractor is not eligible for any escalation or other wise of the price other than that quoted, accepted and agreed to.

5.2.16.1 No claim for revision of price will be allowed on any account during the period of contract or during the extended period of contract if any.

5.3.7 Extension for period of completion

The extension for period of completion will be granted on request by the contractor and shall be considered for the following cases only

1. Force majeure condition vide clause 5.3.9.
2. Delay in handing over of land.
3. Additional works vide clause 5.3.28 ordered by the Engineer-in-charge which affect the project schedule

The contractor shall intimate the Engineer-in-charge immediately on the occurrence of an event of the above nature and the consequent details such as number of days lost, number of days affected and revised schedule. It is the contractor's responsibility to establish the number of days affected in the critical path of accepted project schedule. Claims for time extension put up after 30 days from the last date of occurrence of the event will not be entertained.

If the contractor fails to complete the work in time as stipulated in the contract, he shall apply in writing to the agreement authority for extension of period of completion. While applying for the extension of period of completion, the contractor shall give the particulars of work completed, balance works to be completed and probable period required for completion of balance work with explanation for delay. The Engineer-in- Charge shall determine the works completed and the balance works remains to be completed on the date of expiry of contract period or extension period. He will assess the reasonable period required for completion of the balance work and will grant extension of period of completion accordingly.

The ordered extension of time shall not release the contractor from any of its obligations under the contract. No extra payment other than those agreed to in the contract will be given on account of the ordered extension of time and the Board will not have any financial commitment. The Contractor shall extend the validity period of the comprehensive security suitably to cover such extension and also, for the period of contract.

5.3.17 Extra items - Deleted

5.3.18 Variation in quantity - deleted

5.3.20 Sub-Contractor/ Sub-letting

5.3.20.1 The Contractor shall not assign/sublet the 'Contract' or any part thereof or any benefit or interest therein or there-under (otherwise than by a charge in favour of the

Vendor's/Contractor's/Banker's of any moneys due or to become due under this 'contract') without the prior written consent of the Engineer-in-charge.

5.3.20.2 The Contractor shall submit two (2) copies of the sub contractor's experience to the Engineer in charge to confirm the suitability of the Sub-Contractor to perform the 'Work'.

5.3.20.3 The Contractor shall not sublet the whole of the 'Contract'. Except where otherwise provided by the contract, the Contractor shall not sublet any part of the 'Contract' without the prior written consent of the Engineer in charge, which shall not be unreasonably withheld and such consent if given, shall not relieve the Contractor, from any liability or obligation under the 'Contract' and he shall be responsible for the acts, defaults and neglects of any Sub-Contractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants, or workmen.

5.3.20.4 In the event of the contractor contravening this condition, Board shall be entitled to place the Contract elsewhere on the Contractor's account and at his risk and the contractor shall be liable for any loss or damage which the Board may sustain in consequence or arising out of such replacing of the contract.

5.3.20.5 The Contractor shall be responsible for transmitting pertinent data of all contract terms and conditions to the Sub-contractors. The Contractor shall furnish to the Engineer in charge four (4) un-priced copies of all sub-orders showing promised delivery dates/places/work program.

5.3.20.6 For components/equipment procured by the Contractor for the purpose of the contract after obtaining the written approval of the Engineer in charge, the Contractors specification shall call for quality plans to be submitted by the suppliers along with their proposals. The quality plan called for from the suppliers shall set out, during the various stages of manufacture and installation, quality practices and procedures followed by the supplier's quality control organization, the relevant reference documents/standards used, acceptance level, inspection of documentation raised etc. Such quality plans of the selected supplier shall be discussed and finalized in consultation with the Engineer and shall form a part of work/purchase order of Contractor on that supplier/ sub-contractor. Un-priced copies of such order or orders are to be submitted to the Board within 15 days after placement of the order by the Contractor showing promised delivery dates/places/work programme.

5.3.20.7 Should any Sub-Contractor fail to carry out any portion of the 'Work' satisfactorily, this work shall be cancelled by the Contractor on written Notice to the effect from the Board. The 'Work' however shall be continued by the Contractor himself or through another approved Sub-Contractor and complete the work as per agreed schedule.

5.3.28 Additional works due to geological Surprise/ social obligations

1(i) Additional works due to geological surprises/ social obligations are those items of works which are not explicitly or impliedly included within the scope of the work as defined in the clause 2.2.3... of volume II read with volume III (A), volume III (C) and clause 2 of Volume

V of this bid documents. Such works may be necessitated either due to geological surprises or due to requirements to fulfill social obligations of the Board to the people in the locality which were not foreseen. Details of such works if any with specification and quantities shall be examined and certified by the Engineer in charge. The Engineer-in-charge after scrutiny of the proposal shall submit the same to the Board with clear recommendations. The additional works shall be done only after getting approval of the Board. The contractor shall execute such additional works if so directed by the Engineer-in-charge at the rates mutually agreed between the Board and the contractor. On receipt of order in writing to execute such additional works, the contractor shall communicate the rate which he proposes for that item to the Engineer-in-charge within fourteen days. Such rates shall be supported with required data and analysis. Within one month thereafter, the Engineer-in-charge shall intimate the rate allowed to the contractor after verification of the furnished data.

(ii) The rate for an additional work will be determined depending on the cost of various elements which should be considered in arriving at the rate for an additional work and will be fixed on the principles laid down below.

(iii) The additional works will be paid only after getting Board sanction for the rates and executing the supplemental agreement. Every effort shall be made to obtain Board sanction and effect payment at the earliest. However, if there is delay of more than two months for getting Board's sanction after taking up with Board by the Agreement authority, an interest free advance equal to 70% of the value of additional works already executed at the rate proposed by the agreement authority shall be paid to the contractor. The interest free advance paid against additional works executed shall be adjusted in the next contract certificate after getting the Board's sanction.

2.(i) The following conditions will precede the execution of an additional work of work: There shall be an order in writing to execute the additional work duly signed by the concerned agreement authority; failing such a sanction, the Board may not entertain any sort of claim for such an additional work.

(ii) If the contractor for any reason finds that additional works are involved he should give notice to the concerned agreement authority to this effect and shall proceed with the

execution of the additional work only after receiving instruction in writing from the concerned agreement authority.

3. Additional work for the purpose of payment may be classified as additional, substituted or altered items, depending on their relation or otherwise to the original item or items of work.

4. The principles of arriving at the rate for an additional work are given below. Normally the rate for an additional work will also be specified when the work order for the additional work is given. If this is not done the rates will be fixed separately and intimated to him for executing supplemental agreement.

The rate for additional works shall be worked out as below:

i) In the case of all additional works, whether additional, altered or substituted, if DSR item for identical items are provided for in the contract such rates shall be applicable.

ii) In the case of all additional works, whether additional, altered or substituted for which similar items exist in the contract the rates shall be derived from the DSR of the original item by appropriate adjustment of cost of affected components.

iii) In the case of additional works, whether altered or substituted for which similar items do not exist in the contract and rates exist in the DSR, the rates shall be arrived at on the basis of the DSR.

iv) In the case of additional items, the rates shall be arrived at on the basis of the DSR.

v) In the case of additional work whether additional, altered or substituted, for which rates cannot be derived from similar items in the contract and only partly from the DSR the rates for such part or parts of items as are not covered in the schedule of rates shall be determined by the Engineer-in-Charge on the basis of prevailing market rates giving due consideration to the analysis of the rate furnished by the contractor, with supporting documents, including contractor's profit. This shall be added on the DSR for the other part of the item for which rates can be derived from the schedule of rates.

vi) In the case of additional works whether additional, altered or substituted for which the rates cannot be derived either from similar item of work in the contract or 'from

the DSR', the contractor shall within 14 days of the receipt of the order to carry out the said additional work of work, communicate to the Engineer-in-Charge, the rate which he proposes to claim for the item, supported by analysis of the rate claimed, and the Board shall within one month thereafter, determine the rate on the basis of the market rate giving due consideration to the rate claimed by the contractor. Contractor's profit will be added.

For working out rates as per clause 4 (v) and 4 (vi), market rate that will be adopted will be the rates prevailing in the market at the time of ordering the work or executing the work whichever is earlier.

vii) Wherever the term 'Departmental data rate' appears it shall mean the rate derived from the DSR allowing contractor's profit also. The contractor's profit that will be allowed for additional works will be as provided in the DSR. Additional works will be worked out in the same manner giving provision as for rates worked out in the original data while tendering for the work.

5. Wherever the terms "DSR" appear, it shall mean the rate derived from Delhi Schedule of Rates in vogue in the Board will be accepted.

6. The Engineer-in-Charge shall be the final authority to decide the classification under which particular additional work comes in and his decision shall be final and binding.

7. The rate once fixed for an additional work will not be varied during the period of contract.

8. The incidence of cost of equipment which will come under direct charges will be based on standards followed by K. S. E. Board LTD from time to time.

9. For additional works cost on labour, materials and transport charges will be calculated on the basis of those applicable for the locality as given in the DSR prevalent at the time of invitation of tenders for the work.

10. If any materials are supplied by the Board for any additional work, the cost thereof will be excluded while allowing profit.

11. 15% CPOH will be provided for the additional works as per CPWD data, excluding cost of departmental materials.

The rate thus arrived shall be binding on the contractor. But the Board shall have the liberty to accept or reject the rate quoted by the contractor. The contractor is bound to execute the work at the Board approved rate.

Before execution of additional works, supplementary agreement with schedule shall be executed by the contractor.

5.3.29 CONSTRUCTION OF COFFER BUNDS FOR WATER DIVERSION AND DEWATERING

5.3.29.1 The Contractor will make their own arrangements for constructing required coffer bunds with earth, gunny bags filled with sand etc., for water diversion arrangements to carry out the works throughout the year.

5.3.29.2 This also includes dewatering arrangements by way of pumping out water for tackling the foundation, maintaining the foundation pits dry for laying concrete for substructure and all allied works till completion of entire work. The unit rates for excavation and concreting shall include the cost of construction of necessary coffer dams, and necessary dewatering arrangements. No extra payment will be made for all the water diversion and dewatering arrangements.

5.3.29.3 After completion of entire work the Contractor should dismantle all temporary arrangements/ structures constructed for execution of work with the concurrence of Engineer in charge at appropriate time and clear the site without affecting the regulation of flow and without accumulation of silt in the Weirs.

5.4.6 Contractor's drawings

All engineering designs, drawings and computation of all the components and structures shall be prepared by the Contractor and got them approved by the Engineer-in-charge. But the said approval by the Engineer-in-charge will not relieve the contractor from his responsibilities in case of defects in the said engineering designs, drawings and computation of all the components and structures.

The contractor shall also submit the following details in triplicate, to the Engineer-in-charge for approval within the time specified against each item below:

- (a) Drawings showing the location of major plants and other facilities which he proposes to put up at site, including any change in the general layout, at least fourteen days prior to the commencement of the respective work; and
- (b) Detailed lift drawings showing all openings, embodiments, formwork, supports and concrete quantities for each pour, at least 30 days prior to the commencement of the particular work.
- (c) Any other details and drawings as required under the contract at the times specified in the contract.
- (d) Schedule of bar bending before 10 days prior to the commencement of particular work.
- (e) Drawings for care and diversion works before 7 days prior to the commencement of particular work
- (f) All machine parameters and particular lay outs, requirements and loading details, embedment details etc. if required, within 90 days after award of the work.
- (g) Details of preliminary and enabling works before 10 days prior to the commencement of work.

The contractor shall supply to the Engineer in charge 3 copies each of the design/calculations and drawings for approval. The Engineer-in-charge shall give comments/approval on one copy and return it to the contractor. The contractor shall incorporate all necessary comments of the Engineer-in-charge in the above design and drawings if any and shall resubmit further 3(three) copies of each of the revised designs and drawings within 10 (ten) days for final approval. After approval from the Engineer-in-charge, the contractor shall submit thereafter 10 (ten) copies of each of the approved drawings together with two soft copies on CD to the Engineer-in-charge. Further design calculations and drawings shall be submitted in sequence as per a schedule to be drawn and agreed mutually. The documents and drawings shall be in sufficient detail for review. The drawings shall be of standardised sizes and as instructed by the Engineer-in-charge. The drawings shall contain the following basic information in the name plate.

- (a) Project name (b) Name and number of contract (c) Contractor's name (d) Number and title of drawing (e) Date and scale (f) Draftsman name and signature (g) Name of structural designer responsible and signature (h) Revision number eg. R1, R2 etc. i) signature of authorised signatory of the contractor

5.4.15.2. Data in Support of price

Contractor shall submit to the Engineer-in-Charge, the detailed estimate and analysis of rates in support of the price quoted in both soft copy and hard copy along with the price bid.

5.5.6 Right to split up work (Deleted)

5.5.14 Advances

Mobilization advance of 5% of the agreed contract amount shall be paid to the contractor on their request against Bank Guarantee of 1.1 times the advance amount issued by a nationalized bank in favour of Chief Engineer (Civil-Investigation & Construction Central), Kerala State Electricity Board Limited. Such bank guarantee shall remain effective until the advance payments have been repaid. Request for advance payment shall be considered only after execution of agreement and commencing the work.

Advances will carry an interest at the rate of MCLR fixed by the State Bank of India at the time of repayment plus 2%. Recovery of advances will be on pro-rata basis from the part bills and number of installments will be fixed by the Board.

5.5.14.1 Recovery of Advance Payment

The amount of advance payment together with interest shall be recovered from the Contractor's progressive payment on pro-rata against the work done by the Contractor on presentation of the respective documents. Interest on outstanding advance amount from the date of last bill to the current bill will be calculated and charged first and the principal amount outstanding advance amount will be recovered on pro-rata basis. Bank Guarantee against advance payment shall be returned to the Contractor within 30 days after the recovery of advance amount together with interest is completed.

5.9.14 Foreign Exchange (Deleted)

5.9.15 Infrastructure (Deleted)

5.10.12 Safety Plan

The contractor shall adopt all fire safety measures as per relevant Indian Standards. Before commencing the work, contractor shall submit a "safety plan" to the Engineer-in-Charge or his representative. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety to men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified hereunder.

The contractor shall submit "safety plan" before start of work. Before and during execution of the contract, KSEBL shall have right to review and suggest modifications in the safety plan. Contractor shall abide by KSEBL's decision in this respect.

VOLUME IV Schedule of Technical Particulars and Prices/BOQ

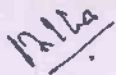
Schedule of Prices/BOQ

SLNO	DESCRIPTION	Unit	Rate (Inclusive of all taxes freight, insurance etc excluding GST)	Quantity	Price (in Rupees)
	Part-I Civil and Hydro-mechanical works	Nos.		1	
	Part – II Electromechanical works	Nos.		1	
	TOTAL(Total Contract Price)				

Note: Priced List of recommended spares, mandatory spares and other items (service and supply) have to be furnished. The Total Contract Price shall be inclusive of the above.

Sd/-
Company Secretary i/c

Forwarded / By Order



Assistant Executive Engineer