



FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE

ON

**PUBLIC UNDERTAKINGS
(2023-26)**

FIFTY SECOND REPORT

(Presented on 21.03.2025)

SECRETARIAT OF THE KERALA LEGISLATURE

THIRUVANANTHAPURAM

2025

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COMMITTEE

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**PUBLIC UNDERTAKINGS
(2023-26)**

FIFTY SECOND REPORT

On

**The Action taken by Government on the Recommendations contained in the
Hundred and Seventh Report of the Committee on Public Undertakings
(2014-16) relating to Kerala State Electricity Board, based on the Report of
the Comptroller and Auditor General of India for the year ended on
31st March 2007.**

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COMMITTEE ON PUBLIC UNDERTAKINGS (2023-26)

COMPOSITION

Chairperson:

Shri. E. Chandrasekharan

Members:

Shri A.P.Anilkumar

Shri Anwar Sadath

Shri Ahammad Devarkovil

Shri T. V. Ibrahim

Shri P. Mammikutty

Shri K. P. Mohanan

Shri D. K. Murali

Shri P. Nandakumar

Shri Kadakampally Surendran

Shri P. Ubaidulla

Legislature Secretariat:

Dr. N. Krishna Kumar , Secretary

Shri Venugopal R, Joint Secretary

Shri Anilkumar B, Deputy Secretary

Shri Mohanan. O, Under Secretary

INTRODUCTION

I, the Chairperson, Committee on Public Undertakings (2023-26) having been authorised by the Committee to present the Report on their behalf, present this Fifty Second Report on the Action Taken by Government on the Recommendations contained in the Hundred and Seventh Report of the Committee on Public Undertakings (2014-16) relating to Kerala State Electricity Board based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2007.

The Statement of Action Taken by the Government included in this Report was considered by the Committee at its meeting held on 06.09.2022 and 19.09.2024.

This Report was considered and approved by the Committee at its meeting held on 18.03.2025.

The Committee place on record their appreciation for the assistance rendered to them by the Accountant General (Audit) in the examination of the Action Taken Statements included in this Report.

Thiruvananthapuram,
21.3.2025.

E.CHANDRASEKHARAN
Chairperson,
Committee on Public Undertakings.

REPORT

This Report deals with the action taken by the Government on the recommendations contained in the 107th Report of the Committee on Public Undertakings (2014-16) relating to Kerala State Electricity Board based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2007.

The Hundred and Seventh Report of the Committee on Public Undertakings (2014-16) was presented to the House on 18th February 2016. The Report contained Five recommendations and the Government furnished replies to all these recommendations.

The Committee examined the statement of Action Taken received from the Government on Para 10, 11, 12, 13 and 14 in its meeting held on 06.09.2022. The Committee accepted the replies on recommendations in Para No. 11, 12, 13, 14 and sought additional information on the vetting remarks of Accountant General on Para No 10. After considering the additional information, the Committee accepted the reply on Para No. 10 without remarks in its meeting held on 19.09.2024. These recommendations, additional information sought by the Committee and the replies furnished by the Government form Chapter I of this Report.

CHAPTER -iREPLIES FURNISHED BY GOVERNMENT ON THE RECOMMENDATIONS OF THE COMMITTEE
WHICH HAVE BEEN ACCEPTED BY THE COMMITTEE WITHOUT REMARKS

Sl. No.	Para No.	Conclusions/Recommendations	Action taken Report
1	10	The Committee is distressed to note that the Board made the payment of ₹1.92 crore to the contractor of Kuttiyadi Additional Extension Scheme Project for the lumpsum civil works without taking measurement and amending the bid documents despite knowing the direction of the Chief Engineer to pay an amount of ₹55 lakh for the construction done in an area of 637 Sq.m only.	<p>As per proforma of the tender documents all the items of work under “Infrastructure works and construction on facilities” were provided with provision for lumpsum quoting only where payment can be made on the basis of measured progress of works as per the Addendum issued before finalisation of tender. Proforma of Bill of quantities were not given for Infrastructure works and construction fees. Hence it is not necessary to record detailed measurements of each item of any lumpsum item of work under "Infrastructure works and construction facilities". For "Main Civil works" only monthly payments as per measurements were insisted. (See Annexures IA, IB, IC & ID). The copy of M- Book showing the measurements is attached as Annexure IE</p> <p>Regarding amendment of bid documents it may kindly be noted that at the time of invitation of Pre Qualification Bids, stage payments were proposed for making interim payments of lumpsum items. But during bidding process it</p>

			<p>was found that making interim payments based on the proportionate progress of the lumpsum quoted works would be more reliable and hence it was included in addendum No. 1 (See Annexure-2).</p> <p>Addendum No.1 for the bid documents were issued to the qualified bidders on 15.02.2000 well before the opening of price bid on 17.04.2000. Agreement for the work was executed on 10.11.2003. No subsequent amendment was made after opening of the tender.</p> <p>The direction of the Board vide letter dated 21.06.2004 to pay an amount of C55 lakh for the construction done in an area of 637 sq.m is against CC I & II only. It may please be noted that as requested by the contractor, the Board had allotted 4100m² land for the construction of Contractor's camp, workshop, offices etc (See Annexure-3). As per the assumption taken in the field 3075sq.m of construction can be done in this allotted area. Thus the amount admissible as per CC I & II was calculated as follows:-</p> $\frac{637}{3075} \times 279.20 = 57.83 \text{ lakh against}$ <p>which only ₹55 lakh was released at that time. (Where ₹279.20 lakh was the amount quoted by the</p>
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			<p>contractor for the construction of camp, workshop, staff colony etc.) (see Annexure 4)</p> <p>The contractor had constructed temporary buildings having an area of 3520 sq.m, and percentage payments were made through various part bills according to the progress of completion of the construction of contractor's camp, Offices, stores, workshop etc assessed by the field officers during execution.</p> <p>The Contractor had completed construction of contractor's camp, offices, stores, workshop etc by November 2005 (CC 17 & part) but the full payment was made by February 2007 (CC32 and part) only, that was for ensuring the commencement of work of all the component structures of the project.</p> <p>The measurement of 637 Sq.m was for the construction made up to March 2004 (CC I & II) only. The contractor completed 3529m² (100%) construction of the contractor's camp, offices, stores, workshops etc by 11/2005 in the allotted 4100sq.m land But KSEBL restricted payment within the agreed amount only.</p> <p><u>Vetting Remarks of AG</u></p> <p>There was no supporting documents for corresponding measurement in M-Book as per DB Note dated 20.03.2007.</p>
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		<u>Additional information sought by the Committee on Para No. 10</u> Not satisfied with the reply furnished on Para 10, Committee wants to furnish supportive documents for corresponding measurement in M-Book as per DB Note dated 20.03.2007.	<u>Statement of Action taken</u> The following supporting documents for corresponding measurement in M-Book as per DB Note dated 20/03/2007 are enclosed herewith. 1. Progressive Invoice – RB -32 2. Infrastructure Facilities Planned and Mobilized as on 31.01.2004. 3. Infrastructure Facilities Planned and Mobilized as on 29.02.2004. 4. Progressive Invoice – RB-17 5. DB Note 6. Modifications of bid documents (Addendum No. 1) 7. B.O. No 2849/99(TC5-1598/99) dated 21/12/1999.
2	11	The committee observes that as per the nothings in the measurement book, there was no proof for the completion of construction. Taking over certificate of the completed construction. Taking over certificate of the completed construction was also not furnished by the Assistant Engineer or Assistant Executive Engineer even though it was asked to do so. From the above facts, the committee concludes that the Board unduly favoured the contractor of Kuttiyadi Additional	The measurement of contractor's camp, offices etc had been entered in the Measurement Book in Percentage basis for each payment up to 100%. The above percentage was arrived from the details of construction and its area submitted by the contractor as annexure to each interim valuation certificate. The area of construction as per annexure 4 is converted to percentage, based on the total area to be constructed and entered in the M-Book and both annexure and

		<p>Extension Scheme Project.</p>	<p>M-Book were submitted along with each part bill.</p> <p>The details entered in the measurement book for the construction made by the contractor and the percentage of payments made for various part bill against construction of contractor's camp, offices, store, workshops etc are attached as <u>Annexure-5</u></p> <p>The term contractor's camp in the schedule signifying that the same was for the purpose of the contractor for facilitating the execution of civil part of the work. No building for KSEB's use was stated in the agreement. It was clearly mentioned in clause 7.4- Accommodation that KSEB did not require any residential buildings or offices for their staff and land will be given for constructing quarters/dormitories for accommodating the staff and workers of the contractor. (<u>see Annexure-6</u>) It may also be noted that this project work is only an addition to an existing power station with sufficient infrastructure facilities like staff quarters, roads, etc. Hence the proforma of schedule of this project was prepared by including works that are necessary for execution of this project work only. The drawings submitted by the contractor (Vol. VII of the Agreement) for " Infrastructure work and construction</p>
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			<p>facilities” clearly distinguish the same as temporary structures. The same had been accepted and agreed by the Board without any objection . Further in Vol. V, technical Specifications as per clause 1.1.2-Scope of work, the same is grouped under temporary work. No permanent residential and Non-residential buildings are shown under scope of works. (see Annexure-7) In Addition to the above, all the communications and documents have clearly distinguished the “ main civil works from “ Infrastructure work and construction facilities’. It is clear from all the above that the Board treated the same as temporary items and is to be cleared as per “ Clearance of site” conditions.(see Annexure-8) Hence there is no need of taking over those temporary buildings.</p> <p>Board constituted a Technical Committee for examining the eligibility and admissibility of various claims and regarding the payments made to M/s. L&T towards Infrastructure works and construction facilities. The Technical Committee examined each and every clause of General conditions of contract of the Agreement and concluded that the claims were made only in accordance with the provisions in the agreement.</p>
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3	12	<p>The committee is not satisfied with the explanations of the witness claiming the availability of documents for the construction done in 3075 Sq.m. Land and the claim is irrelevant as the construction had already been demolished. Therefore the committee wanted to be furnished with the details of the demolished construction, payment done in the matter and also the details of the Project Manager and the Director of the concerned project.</p>	<p>As the constructions under item (4) of “Infrastructure and Construction facilities” were temporary works and are to be cleared as per “Clearance of site” condition in the Agreement by the contractor, upon completion of the project work for facilitating the construction activities of Kakkayam SHEP, the then Project Manager instructed the contractor to remove all the temporary works. (see Annexure-9) Since those temporary buildings were intended exclusively for the execution of the project by the contractor under the head “Infrastructure works and Construction facilities” and since those buildings were temporary and they were dismantled for the implementation of the Kakkayam SHEP, there was no need to take over them.</p> <p>The Technical Committee constituted vide order dated 07.12.2016 also concluded that the claims were made only in accordance with the Agreement provisions.</p>
4	13	<p>The Committee learns that an amount of ₹228 lakh fixed as liability of the company by the Vigilance and Anti Corruption Bureau has not been recovered so far. The committee agrees with the opinion of the Accountant General that the Company may not remit the amount as per</p>	<p>Regarding the vigilance case, it may kindly be noted that the officials of the Vigilance and Anti-Corruption Bureau (V&ACB) were nor against making payment of various temporary buildings under the head “Infrastructure works and construction facilities”. Their only dispute was with regard to the rate at which payments were made. Since</p>

	<p>the recovery notice and the matter may end up as a court case that the Company can produce the evidence that they had done the construction. Therefore the committee directs to take action against the persons who are found guilty on the enquiry of Vigilance and Anti Corruption Bureau and directs to furnish the details of action taken in the matter.</p>	<p>no bill of quantities of these works was available in the agreement, they estimated the cost for constructing temporary buildings with a plinth area of 3075 sq.m based on the PWD schedule of rates prevailing at the time of execution of these works and deducted the total cost of construction thus arrived from the total amount paid as per Addendum I of the agreement and arrived at a loss of ₹228.79 lakh.</p> <p>The Director, V&ACB has submitted the enquiry report to the government recommending to take action against the Board officials and to recover the loss from the contractor. The Committee on Public Undertakings (CoPU) (2014-16) in its meeting held on 18.02.2015 also directed the Board to initiate action against the serving Board employees. On recommendation of Government, KSEBL initiated disciplinary proceedings vide BO(CMD)No.453/2015(GPCI/59(A)/03 dated, Thiruvananthapuram 23.02.2015 against the serving Board employees.</p> <p>Both VACB and KSEBL did not register case against the delinquents as there were no hard evidence in support for the registration of the case or disciplinary action. The enquiry officer reported that the initial stage itself there was an objection and also a complaint with</p>
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			<p>regard to preparation and payment of bills. Hence a committee was constituted for enquiry and it was found that the method of payment prepared by the field officers was in order. Thus the enquiry revealed that the Assistant Engineer and Assistant Executive Engineer discharged their duties according to the instruction of higher officials and as per the provisions in the agreement while taking measurements and proposing the payments. Hence it was found that the amount of ₹228.79 lakhs which the Vigilance found as excess payments to the contractor cannot be attributed to both of them and hence be acquitted of from their charges.</p>
5	14	<p>The committee also recommends that, since the stay order issued by the Hon'ble High Court has expired on 05.06.2015, the Board should take urgent step to recover the excess payment of ₹228.79 lakh made to M/s. L&T Company and the action taken in this regard should be intimated to the committee within one month.</p>	<p>M/s. L&T filed a writ petition against the encashment of Bank Guarantee amounting to ₹2.69 Cr. The Hon'ble High Court granted stay for the same and the case is pending disposal. M/s. L&T has extended the validity of Bank Guarantee amounting to ₹2.69 Cr up to 15.09.2017.</p>

Thiruvananthapuram
21.03.2025.

E.Chandrasekharan
Chairperson
Committee on Public Undertakings

PVC

ANNEXURE 1A

Schedule - A1

PROFORMA FOR PRICE BREAK DOWN OF WORKS FORM A1

Sl. No. DESCRIPTION OF WORKS	Amount in	
	US Dollar (Million)	Indian Rupees (Lakhs)
1	2	3
(A) CONTRACT PRICE		
1. Planning, Design & Engineering	-	448.00
2. Civil Works	-	-
(i) Infrastructure Works and Construction facilities	xxx	277.38
(ii) Main Civil Works	xxx	2779.75
3. Hydro-Mechanical Works (excluding penstock value)	-	3919.06
4. Electrical & Mechanical Works (including penstock value)	1.20	7009.00
Sub-total of (A) (i.e. Total Contract Price)	1.20	15033.19
(B) CONTINGENCIES FOR MAIN CIVIL WORKS	-	75.00
GRAND TOTAL OF (A),(B)	1.20	15108.19

US dollars One million, two hundred thousand and Rupees one hundred fifty one crores and eight lakhs and nineteen thousand only.
 Note: Please refer Clause 10.2 and 10.3 of ITB before filling of A and B

Bid documents

GENERAL MANAGER
 Hydel Power Project
 Bhairi Hydro Electric Project Ltd
 Lohi Road, Dehra - 245 005

Chief Engineer (Civil) Construction
 E. S. B.

2733 (9)

ANNEXURE I A

Kulivarti Additional Extension Scheme

9

Schedule - A1

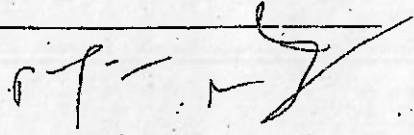
PROFORMA BREAK UP OF CONTRACT PRICE FOR WORKS/ COMPONENTS

Sl. No. DESCRIPTION OF WORKS 1	US Dollar (million) 2	Indian Rupees (Lakhs) 3
1. Planning, Design & Engineering		
i) Overall Planning Report	-	10.00
ii) Further investigation required, if any	-	5.00
iii) Model studies	-	30.00
iv) Engineering Design & Drawings	-	403.00
Sub-Total 1	-	448.00
2. Civil Works		
i) Infrastructure Works & Construction facilities etc.	-	877.38
ii) Main Civil Works		
(i) a) Water conductor System- Intake including power tunnel upto Surge Shaft.	-	449.06
b) Surge Shaft, Butterfly Valve gallery & Penstock	-	1371.40
(ii) Power House Complex	-	336.84
(iii) Construction Adit for Surge Shaft	-	38.44
(iv) Switch yard	-	106.10
(v) Tail race charne	-	477.90
Sub-Total 2	-	3657.12

S. S. S.

Bid documents

GENERAL MANAGER
 Hydro Power Sector
 Bharat Heavy Electricals Ltd
 Lodi Road W. Delhi - 110 003


 Chief Engineer (Civil) Construction
 H. P. S. S.

ANNEXURE I A

Kalyani Additional Extension Scheme

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Schedule - A1

	US Dollar (Million)	Indian Rupee (Lakhs)
3. Hydro-mechanical Works <i>(Excluding penstock valve which is included at 4 below)</i>		
i) Design, manufacture and supply of items	-	3919.06
ii) Storage, assembly, erection, testing and commissioning of items	-	
Sub-total 3	-	3919.06
4. Electrical & Mechanical Works <i>(Including penstock valve)</i>		
i) Design, manufacture and supply of items	1.20	7009.00
ii) Storage, assembly, erection, testing and commissioning of items		
Sub-total 4	1.20	7009.00
Grand Total	1.20	15033.19

(US dollars One million two hundred thousand and Rupees one hundred fifty crores thirty three lakhs and nineteen thousand only)

Note: Please refer Clause 10.2 and 10.3 of ITB before filling up of this schedule

GENERAL MANAGER
Hydro Power Sector
Bharat Heavy Electricals Ltd
Lodi Road N. Delhi - 110 003

Chief Engineer (Civil) Construction
E. S. E. D.

Bid documents

ANNEXURE - IA

Kulliyadi Additional Extension Scheme

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Schedule - A1

1. PROFORMA FOR BREAK UP OF CONTRACT PRICES FOR VARIOUS SERVICES UNDER "PLANNING, DESIGN & ENGINEERING"

Sl No:	Name of Services	US DOLLAR	INDIAN RUPEES
1.	Submission of overall Planning Report		
2.	Submission of Report on Additional Site Investigation performed (if any)	Filled in	
3.	Submission of Report on Hydraulic Model Test	information is enclosed in	
4.	Supply of detailed Construction Drawings leading to : (i) Construction of Intake Works (ii) Construction of Power Tunnel (iii) Construction of Surge Shaft, Penstock etc. (iv) Construction of Power House Complex and Switch yard Complex (v) Construction of Tail Race Channel (vi)	Cover-3, Vol-I, (Part-I), Section-II of the offer	
Total Price			

Note: Above said price breakup is only for the information of the Owner. Actual payments shall be governed by the Schedules of payment mutually agreed to between the Successful bidder and Owner and as per the terms and Conditions of Contract.

Please refer Clause 10.2 and 10.3 of ITB before filling up this schedule

53 documents

GENERAL MANAGER
 Hydro Power Sector
 Bharat Heavy Electricals Ltd
 Lodi Road N. Delhi - 110 003
 (Civil) Department
 L. S. E.

ANNEXURE - I

Kuliyadi Additional Extension Scheme

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Schedule - A1

2. CIVIL WORKS**1. PROFORMA FOR BREAK UP OF CONTRACT PRICE OF INFRASTRUCTURE WORKS AND CONSTRUCTION FACILITIES.**

Sl. No.	Description	In US dollar	In Indian Rupees
1.	Site mobilisation of staff (expatriate/ Indian, workmen, vehicles etc.)		
2.	General mobilisation of contractor's construction plant and equipment etc		
3.	Site installation of contractor's construction plant and equipment etc.		
4.	Construction of contractor's i. Camp (residential & non-residential buildings) ii. Offices iii. Stores iv. work shops	Filled in information is enclosed in Cover-3, Vol-I (Part-2), Selhan II of this offer.	
5.	Forming of new roads if required, Widening and improvement of existing roads, Including construction of cross drainage works etc to enable plying of trailers carrying permanent equipment and for movement of heavy construction equipment to various project sites etc.		
6.	Alternate construction power		
7.	Other miscellaneous items to suit contractor's Programme, planning, methodology etc.		
	Total		

Bid documents

GENERAL MANAGER
Hydro Power Sector
Bharat Heavy Electricals Ltd
Lodi Road N. Delhi - 110 003

Chief Engineer (Civil) Construction

ANNEXURE I

Filled in information is enclosed in Section of Vol-I (Part-I) of this offer.

II. BILL OF QUANTITIES FOR MAIN CIVIL WORKS

I. WATER CONDUCTOR SYSTEM

a) Intake including power tunnel upto surge shaft

Sl. No.	Description of work (as per owner's preliminary design)	Unit	Quantity	Unit price in US Dollar	Amount in US Dollar	Unit price in Indian Rupees	Amount in Indian Rupees
			4	5			6
1	Open excavation	M ³					
	a) in soil	M ³					
	b) in rock	M ³					
2	Under ground excavation in all types of rock / strata	M ³					
3	Un-tensioned rock dowels/ anchors/ bolts including cost of cement / resin	m					
4	Pre-stressed cables/ rock anchors/ bolts including cost of cement / resin	m					
5.a)	Drilling for grouting (contact and consolidation)	m					
b)	Grouting (Contact and consolidation) including cost of cement	Ton					
6	Mesh reinforcement for shotcrete	Kg					
7	Shotcrete including cost of cement	m ³					
8	Shotcrete reinforced with steel fibers including cost of cement	m ³					
9	Steel ribs support system and its accessories	Ton.					

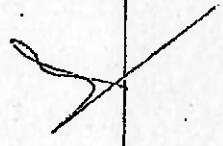
GENERAL MANAGER
 Hydro Power Sector
 Bhardi Heavy Electricals Ltd
 Lodhi Road, N-Delhi - 110 003
 Chief Engineer (Civil) Construction
 27/3/87, E. 3

ANNEXURE I A

10	Pre-cast RCC lagging including cost of cement and steel reinforcement	m ³			
11	Steel reinforcement (grade Fe-415)	Ton.			
12	Concrete excluding cost of cement in a) Portals b) Tunnel lining	m ³ m ³ ton. m			Filled in information is enclosed in cover-3, lot-I (part-I) below of BOQ offer
13	Cement for concrete works	m			
14	Drilling for drainage holes	m ³			
15	Masonry including cost of cement	LS			
16	Construction of coffer dam for facilitating construction of intake structure and removing after work.				
	Total				
	Contingencies, if found necessary to be specified.				
1					
2					
	Total of Contingencies (to be carried over to the item (B) of Form A1)				

Note:- 1) Items of works in this bill of quantities (BOQ) for Main civil works are based on Owner's Preliminary Design. The same may be modified/ altered to meet the scope of work involved as per Bidders Design and Engineering for various components of the Main Civil Works.

- 2) These bill of quantities shall be read in conjunction with corresponding Technical Specifications Vol. III of Bid Documents.
- 3) Please refer Clause 10.2 and 10.3 of ITB before filling the schedule



Bid Documents

GENERAL MANAGER
Hydro Power Sector
Bharat Heavy Electricals Ltd
Barrack Road, Delhi - 110 003

2739 (9)

14

ANNEXURE-1B
Kuttiyadi Additional Extension Scheme

Schedule D.3
Schedule of Payments

Schedule D-3

Filled in information is enclosed in section ^{Clause 3} D of Val-I (Part-I) of this offer.

Schedule of Payments

Sl No	Description of work	1 st stage 30% payment	2 nd stage 50% payment	3 rd stage 90% payment	Taking over 95% payment
1	Planning, Design and Engineering	--	--	--	Payment on completion
2	Infrastructure works	--	--	--	Payment on completion
3	Main Civil Works	For the Main Civil Works, Monthly payments as per Clause 13.7 of General Conditions and as per the measurements accepted by KSEB and the Contractor			
a.	Power tunnel				
b.	Surge shaft				
c.	Valve house				
d.	Surface penstock				
e.	Power house				
f.	Tailrace				
g.	Switchyard				
4.	Hydromechanical works	50% payment	75% payment	95% payment	Full payment
a.	Intake trashrack	Upon receipt at site as per approved programme	After erection and commissioning	After taking over	After issuing performance certificate
b.	Intake service gate				
c.	Intake emergency gate				
d.	Audit inspection gate				
e.	Tailrace stoplogs				

Bid documents

[Signature]
Chief Engineer (Civil) Construction
E. S. E. D.

2835(9)

		50% payment	75% payment	95% payment	Full payment
5.	Electromechanical works				
a.	Turbine	Upon receipt at site as per approved programme <i>filled in information is enclosed in cover 3 vol-I (part I) Sch. II of this offer.</i>	After erection and commissioning	After taking over	After issuing performance certificate
b.	Generator				
c.	Power transformer				
d.	Auxiliary mechanical equipment				
e.	Auxiliary electrical equipment				
f.	Switchyard equipment				

Note: At each of the above stages and monthly payments, Retention money @ 10% (Ten percent) would be deducted before effecting payments, in addition to the deductions towards Advance Payments, if any.

Bid documents

[Handwritten signature]

[Handwritten signature]

Chief Engineer (Civil) Construction
K. S. E. B

2836

ANNEXURE-1C

ARTICLE. III - PAYMENT

In consideration of the due execution of the obligation under the provisions of this Contract strictly in accordance with the terms thereof, the Board agrees to pay the Contractor, the Contract Price or such other sums as may become payable under the provisions of Contract at the times and in the manner prescribed by the Contract. The schedule of payment will be as prescribed by the Board in the Schedule D - 3 of Bid document - Vol. IV of Price bid.

The accepted contract price for the turnkey execution of the project is US Dollar Twelve Lakhs and Indian Rupees 151,08.19 lakhs (Rupees One hundred Fifty One crores Eight lakhs and Nineteen thousand only) with a one-time escalation of 7.5% of the basic rate.

ARTICLE. IV - COMMENCEMENT AND COMPLETION

The work to be performed under this Contract shall be commenced by the Contractor within 30 days from the date of order to commence the work and shall be diligently proceeded until it is complete in every respect. It shall be made ready to be taken over by the agreement authority on or before 42 months from the date of order to commence the work. Time as prescribed herein is hereby agreed to be the essence of this Contract.

ARTICLE. V - COMPONENT PARTS OF THE AGREEMENT

1. This agreement on stamp paper.
2. Tender documents consisting of four volumes viz. Vol.1 - Bid document - Commercial, Vol. II.(A) - Project Profile, Vol. II (B)- Drawing , Vol. III - Technical Specifications and Vol. IV- Price Bid as per invitation to Bid vide letter dated December 4th 1999 of the Chief Engineer (Construction - Civil)
3. a) Letter No. CEC(WB) KES/20/97 (Addendum -1)
b) Letter No. CEC(WB) KES/20/97 dated 14-03-2000 (Addendum-2)
4. The offer submitted by M/s. BHFL-L&T Consortium vide Vol. I Part.1 , Vol. 1 Part. II- Technical specifications and Vol. II - L&T Civil works- excluding all additional /modified conditions specified by the Consortium from the tender documents issued by KSEB.

[Signature]
GENERAL MANAGER
Hydro Power Sector
Bharat Heavy Electricals Ltd
Plot No. 1, Road No. 1, Delhi - 110 003

[Signature]
Self -
Chief Engineer (Civil) Construction
R. S. E. B.

[Signature]
Chief Engineer (Civil) Construction
R. S. E. B.

ANNEXURE 1D

Kuliyadi Additional Extension Scheme

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General Conditions

(g) the deduction of the amounts certified in all previous Interim Payment Certificates.

Measurements

Measurements of Works done under the Contract shall be taken in accordance with the procedure laid down hereunder.

- 1) All items having a financial value shall be measured in the manner as prescribed by the Employer, so that a complete record is maintained of all works performed under the Contract. All records shall be made in two copies, one copy shall be kept by the Employer's Representative and the other by the Contractor.
- 2) Measurements shall be taken jointly by the Employer's Representative or his authorized representative and the Contractor or his authorized representative.
- 3) Measurements shall be signed and dated by both parties on the site. If there is any dispute in any of the measurements, a note to the effect shall be made in the measurement record against the disputed items and such note shall be signed and dated by both the parties engaged in taking the measurements and the parties shall discuss and resolve the same immediately thereafter.

13.4 Schedule of Payments

The Contract includes a Schedule of Payments specifying the Stage Payments in which the Contract Price will be paid, then, unless otherwise stated in such Schedule:

- (a) the instalments quoted in such Schedule shall be used to determine the contract value for the purposes of sub-paragraph (a) of Sub-Clause 13.3;

13.5 Plant and Materials for the Permanent Works

The Employer's Representative shall determine additional amount for Plant & Materials in accordance with the following provisions:

- (a) No additions shall be included in the interim payment certificate unless, in the opinion of the employer's representative:
 - (i) the Plant and Materials are considered to be in accordance with the Contract;
 - (ii) the Plant and Materials have been delivered to the Site and are properly stored on Site and protected against loss, damage or deterioration;

Bid documents

Chief Engineer (Civil) Construction
K. S. E. B

2236

ANNEXURE - 2

KERALA STATE ELECTRICITY BOARD

No. CLC/ENR/KSEB/07

(A)

Addendum No. 1

Subj: Puthiyudi Additional Extension Scheme - (2x50MW) - Bid Documents for the turn-key execution with financial package.

The following modifications are hereby made to the bid documents.

Add footnote to the schedule of payments (page no. 106 of Vol IV - Price Bid) as follows:-

"For the main civil works, the interim valuation certificate will be prepared based on the measurements taken and mutually agreed between KSEB and the contractor."

(2) Sub clause no. "13.3 A" to be added to the heading "Measurements" under clause 13.3 of ITB (Page 69 of Vol I - Commercial)

(3) Add the following sentence to sub clause (1) under the heading "measurements" (page 69 of Vol I - Commercial)

"The measurement of lump sum items will be based on the work completed as a percentage of the total work."

(4) Clause 12.9 of General Conditions (page 65 of Vol I - Commercial) Second paragraph, last sentence add "whichever is later". The paragraph will be as follows.

"The proforma certificate shall be given ----- tested all the works including remedying any defects which ever is later."

(5) Clause 13.8 of General Conditions

In the paragraph, the word "discount rate" shall be replaced with "Bank Rate". The paragraph will be as follows.

"If the payment of any sum payable under sub clause 13.7 is delayed, the contractor shall be entitled to receive financing charges at the

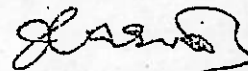
scd.
Chief Engineer (Civil) Construction
K. S. E. B.

annual rate one percentage point above the bank rate of the Reserve Bank of India."

- (6) Clause ii of Instruction to Bidders - Bid Security (page 16 of Vol I - Commercial)
Second paragraph shall be modified as follows.

"The bid security shall, at the bidders option, be in the form of a Demand draft or a bank guarantee from a reputable bank located in India or by a foreign bank through a correspondent nationalised bank located in India".

Copies of this addendum shall be signed and sealed and attached with the bid documents, while submitting the bids.



CHIEF ENGINEER (CONSTRUCTION CIVIL)

sdl-
Chief Engineer (Civil) Construction
K. S. E. B.

ANNEXURE - 3

Schedule - B1

1. CONSTRUCTION CAMP AND FACILITIES

1.1 - Considering the location of work fronts required, it is planned to have the following set up at various locations.

1.2 - Area at Kuttiyadi Dam location and along penstock alignment

Here the following establishments are proposed for the storage, works, staff and labour pertaining to the works at Cofferdam, Intake, Surge shaft and adit, tunnel construction.

	Land required for....	Apx area in sqm
At Dam Top Area		
a	Accommodation for staff and field office	90
b	Labour Colony (within 1 km of site)	700
c	Workshops	150
d	Cement Godown	
At Penstock alignment		
e	Small field offices and stores - 3 locations	60
	Total area required at dam top location	1000

We propose to use the existing structures available in this area, if it is useful, after making necessary repairs to the same, if permitted by KSEB.

1.3 - Area at Kakkayam

It is proposed to construct staff colony, labour colony, main stores, Cement Godown, Workshops etc., for the construction works pertaining to the entire project. Field office and laboratory is also proposed to be established in this area. The following statement provides the details of facilities and area proposed for the same.

	Land required for....	Apx area in sqm
a	Staff colony (including Quarters, GH etc.) near KSEB colony	1100
b	Labour Colony	800
c	Workshops : P&M, carpentry, Steel fabrication	
d	Cement Godown	1200
e	Stores for E&M etc.	(near to PH site and Kakkayam junction)
f	Laboratory and Field offices	
g	Contractors main offices	
	Total area required at Kakkayam junction area	3100

The above establishment areas shall be fenced and security shall be provided.

1.4 - Magazine Building

We propose to utilise the existing magazine building at both dam top area and near Kakkayam Inadu. KSEB shall handover these buildings to the Contractor and the said magazine building shall be used for the Contractor.

KERALA STATE

OF

BOARD

Annexure - 4

Office of the (Gen. & Trans.)
Vydyarthi Bhavanam
Kottayam, Thiruvananthapuram
Date: 23.06.2004

From: THE MEMBER (GEN. & TRANS.)

To: The Chief Engineer (Civil Construction).

Sir,

Sub: - Kuttiyad Additional Extension 2 x 50 MW - Orders for payment -
Regarding.

Ref: - (1) Letter No.EE/PH/KAES/04 dated 15.04.2004 of the Executive
Engineer, Office of the Chief Engineer (IPDS).
(2) That office letter No.CECC/KAES/2003 dated 25.05.2004 and
16.06.2004.

Referring to the above, I am to convey the Board's decision to admit an amount of
Rs.74.4 lakhs (Rupees Seventy Four Lakhs and Forty Thousand only) as against CC I and II
as per the details given below:-

It is reported from the field that the contractor has done construction of only 637 m²
area. As per the assumptions taken in the field 3075 m² of construction can be done in an
area of 4100 m². Hence, payment can be admitted only for an area of 637 m².

Therefore, amount admissible = $(637/3075) \times 276.20 = 57.83$ lakhs.
Say 55 Lakhs.

This total payable amount is as below. Escalation of 7.5% may be applied over and
above this. Deduction may be made as per rules/agreement.

Sl. No.	Item	Amount as per Agreement (Rs. in Lakhs)	Contractor's Claim (Rs. in Lakhs)	Admitted by Field (Rs. in Lakhs)	Agreed by Board (Rs. in Lakhs)
1	Planning	10.00	15.00	10.00 (100%)	10.00
2	Site mobilization of staff	13.50	8.775	5.40 (10%)	5.40
3	General mobilization of plant and equipment	16.00	5.20	4.00 (25%)	4.00
4	Construction of contractor's camp office, workshop, etc.	279.20	174.50	83.76 (30%)	55.00
Total ::			203.475	103.16	74.40

CC/KAES/2003

Chief Engineer, Kakkayam

Yours faithfully
[Signature]

013

LATHAN & THORNTON LIMITED - P.C.C. DIVISION

KULI DIVISION ELECTRICAL PROJECT

24019W Additional Extension Scheme, Kullayam

Progressive Invoice - RP-32

Amatura - V

Contract No. / Civil Works & Infrastructure & Construction Facilities
Construction of Contractor's Camp, Offices, Stores & Workshop 1

Description	Location	No.	Quantity Occupied Area (Sqft)	Remarks
Camps	Kullayam	1	5100	
Small Family Accommodation	Kullayam	1	4200	
Small Business Accommodation	Kullayam	1	7900	
Labour Camp	Kullayam	2	1620	
Labour Family Accommodation	Dombai	1	1750	
Labour Camp	Kullayam	1	3250	
Binial House	Kullayam & Dombai	2	2000	
Temporary Staff Car	Kullayam	1	1800	
Construction Material Accommodation	Kullayam	10	21000	
Total				
Offices	Powerhouse	1	4000	
Project Office	Dombai	1	500	
Site Office		2	4500	
Total				
Stores	Kullayam	1	1500	
Open store at Power house area	Dombai	1	500	
Sub Store at Dam Area	Kullayam	1	2500	
DAWG Shed	Kullayam	1	800	
Store Shed	Kullayam	1	3025	
Storage Area (Open Store shed - 1000sqft)	Kullayam	1	3150	
17200 sqft	Kullayam	1	1300	
Site Works - Surrounded	Kullayam	1	11075	
Site Works - Open Yard (11000 sqft)				
Total				
Workshops	Kullayam	1	1500	
Work Shop at Kullayam covered Area	Kullayam	1	150	
Work Shop at Dam Area	Kullayam	1	400	
Work Shop at	Kullayam	1	250	
Work Mechanical Works - Fab. Yard (Development)	Kullayam	1	150	
Workshop - Source of Floor	Kullayam	1	2310	
Workshop - Source of Floor	Kullayam	1	1815	
Workshop - Source of Floor	Kullayam	1	1400	
Total				
Grand Total - Area Occupied			100075	
Total Proposed Area of Occupation (Approximate)				
% of Completion for tendering the balance works			88.00%	
Area of Sites in Previous Invoices			2000	
Balance of Work to be done in Previous Invoices			95875	
Total				

Comments
 1/2 Payment
 1/3 Payment
 1/4 Payment
 1/5 Payment
 1/6 Payment
 1/7 Payment
 1/8 Payment
 1/9 Payment
 1/10 Payment

LATHAN & THORNTON
 Kerala State Electrical Board
 Services - 1881 2445
 Kullayam - 673 013

LARSEN & TOUBRO LIMITED
ECC DIVISION
 KUTTYADI ADDITIONAL EXTENSION SCHEME (2 X 50 MW)
 AGREEMENT NO: 10/CECC/2003

Infrastructure Facilities Planned and Mobilized as on 31-01-2004

Details of Infrastructure Buildings

S/No	Description	Location	Proposed Nos	Approximate Area Sq ft	Occupied Area	Occupied area Sq ft	Remarks
I Camps							
1	Family Accommodation for Staff	Kakkayam	8	5600	4	2800	} 12.82 M } } 41.8 M } } 2169 M } } 417.5 M }
2	Staff's Achast Accommodation	Kakkayam	1	4500	1	4500	
3	Labour Camp	Kakkayam	3	4500	1	1500	
4	Landfill Camp	Damsile	1	1000	1	1000	
5	Transient House	Kakkayam	1	1250	1	1250	
6	Interim Staff Ctr	Kakkayam	1	1000	1	1000	
7	Management Level Accommodation	Kakkayam	1	1800	1	1800	
II							
8	Primary Office including SH&L Office	Power house Dam Area	1	4000	1	4000	
9	SH&L Office	Dam Area	1	500	1	500	
III							
10	Stores	Kakkayam	1	1500	1	1500	
11	Water sump at Power house Area	Dam Area	1	500	1	500	
12	Sub Sump at Dam Area	Kakkayam	1	3000	1	3000	
IV							
13	Workshops	Kakkayam	1	10000			
14	Fabrication Shop at Kakkayam	Kakkayam	1	39150		23350	

For: LARSEN & TOUBRO LIMITED
 ECC DIVISION

[Signature]

M V RAMACHANDRAN
 CONSTRUCTION MANAGER

Requirement As per Agmt (By 25 May)
 Land requirement - (1000 + 3100) m² land.
 Provide 0.75% of land for plants area.
 building area 1994.075 M² = 32.75 M²
 Already provided 2169 m² land
 71% (2169 x 0.75) = 1626.75 m² can be provided
 5% too high company's standard

2169 x 0.75 = 1626.75
 1626.75 / 1.15 = 1414.57
 (LR 135.6 m²)

1.000 land area
 2169 x 0.75 = 1626.75
 1626.75 / 1.15 = 1414.57
 (LR 135.6 m²)

New only

Appendix I Supporting Document (CI)

LARSEN & TOUBRO LIMITED
ECC DIVISION

KUTTIYADI ADDITIONAL EXTENSION SCHEME (2 X 50 MW)
AGREEMENT NO: 10/CECC/2003
Infrastructure Facilities Planned and Mobilized as on 29-02-2004

SI No	Description	Location	Proposed Nos	Approximate Area Sq ft	Occupied Area	Occupied area	Remarks
I	Camps						
1	Staff Family Accommodation	Kakkayam	8	5600	6	5700	
2	Staff Bachelor Accommodation	Kakkayam	1	4500	1	4500	
3	Labour Camp	Kakkayam	3	4500	2	4000	near Cusat
4	Labour Camp	Dam site	1	1000	1	1000	at
5	Transit House	Kakkayam	1	1250	1	1250	
6	Temporary Staff Qtr	Kakkayam	1	1000	2	2600	
7	Departmental Labour Accommodation	Kakkayam	16	1800	1	1800	
	Offices			19650	14	20850	
	Project Office including BHEL Office	Power house	1	4000	1	4000	
	Site Office	Dam Area	1	500	1	500	
	Stores		2	4500	2	4500	
	Main store at Power house Area	Kakkayam	1	1500	1	1500	
	Sub Store at Dam Area	Dam Area	1	500	1	500	
	BHEL Store	Kakkayam	1	3000	1	500	
IV	Workshops		3	5000	2	2000	
	Work Shop at Kakkayam	Kakkayam	1	10000			
	Total			10000			
	Total Mobilisation and %			3637 m ²		(27350) 70%	

Area arranged by the till 01/4/04
4 " " " " till 01/5/04
371 m²
12.06%



Approved by
M V RAMACHANDRAN
CONSTRUCTION MANAGER

CC I & II

CI - Recommended
II - Recommended

Total
Board sanctioned
the above percentage
and ordered to pay
an amount of Rs
3.55 Lakhs for
escalators 7.5%
Then the total
percentage was corrected
to 19.70% equivalent for
to the amount paid for
CC I & II

29/2/03

LARSEN & TOUBRO LIMITED - ECG - DIVISION
 KUTTIYADITHYDI PROJECT

2x50MW Additional Extension Scheme, Kakkayam
 Progressive Invoice - RB-17

Annexure - V

Schedule A.1 - 2. Civil Works : Infrastructure & Construction Facilities :

4. Construction of Contractor's Camp, Offices, Stores & Workshop :

Sl. No	Description	Location	No.	Cumulative Occupied Area (Sqft.)	Remarks
I	Camps	Kakkayam	6	5700	
1	Staff Family Accommodation	Kakkayam	1	4500	
2	Staff Bachelor Accommodation	Kakkayam	4	5500	
3	Labour Camp	Kakkayam	2	1000	
4	Labour Family Accommodation	Damsile	1	8750	
4	Labour Camp	Kakkayam	1	1250	
5	Transit House	Kakkayam & Nearby	3	3000	
6	Temporary Staff Qtr	Kakkayam	1	1800	
7	Departmental Labour Accommodation	Kakkayam	19	25500	
	Total			40000	
II	Offices	Power house	1	500	
1	Project Office	Dam Arca	1	4500	
2	Site Office		20		
	Total			5000	
III	Stores	Kakkayam	1	1500	
1	Main store - Power house Area	Dam Area	1	500	
2	Sub Store - Dam Area	Kakkayam	1	2500	
3	QVQC Lab	Kakkayam	1	900	
4	Store Shed	Kakkayam	1	3225	
5	Storage Area (Open Stack Yard - 1/10th of 32250 Sqft.)	Kakkayam	1	3750	
6	E&M Works - Storage Shed	Kakkayam	1	1300	
6	E&M Works - Open Yard (1/10th of 13000 Sqft.)	Kakkayam	1	13675	
	Total			25000	
IV	Workshops	Kakkayam	1	1350	
1	Work Shop at Kakkayam covered Area	Kakkayam	1	750	
2	Paint Booth Room	Kakkayam	1	600	
3	DG Set Room	Kakkayam	1	2500	
4	Hydro-Mechanical Works - Fab. Yard (Development of 1/10th of 38750 Sqft.)	Kakkayam	1	161	
5	Radiography - Source Pit Room	Kakkayam	1	12912	
6	Hydro-Mechanical Works - Fab. Shop	Kakkayam	1	10350	
	Total			62052	
	Grand Total - Area Occupied			44900	
	Total Proposed Area of Occupation (Approximate)			100.00%	
	% of Completion				
	Less: Claimed in Previous Invoices :			64.70%	
	Confirmed & Paid % upto Previous Invoice			35.30%	
	Payable in this Invoice %			98.5000%	

Remarks:
 New construction
 33923 sq ft
 3170 m²
 Progress achieved 103 %
 3170 / 3076 = 103 %
 agreement is 103 %
 Open yard 1/15th of the developed area to be equal to existing area to be balloting programme.
 Total 5600 sq ft
 520

Payment received
 6%
 Keral
 There is no structure envisaged in the agreement
 envisaged in the agreement
 achieved in the site.
 By the by the site.
 work in all available work
 6% payment is made in this bill.
 The debitor is more than safe & his agreement is 103 %



5

Annexure

1E

12/

DB Note Submitted.

Sub: - Kuttigadi Additional Extension Scheme (2x50m)
 Turnkey execution - contract with M/s BHEL -
 LIT Consortium - CC XXXII, and part neg.

Ref: - 1. Agreement no: 10/CECC/2003 dtd 10.11.2003
 2. Letter no: KAES/AEG/301/5/03.04 dtd 05.03.
 of the Exe. Engineer, KES division Kabbayam
 3. Letter no: LTCC: MNPL 8917: MUR: 904
 dated 10.02.07 of M/s BHEL - LIT Consortium

The Asst. Exe. Engineer, Subdivision no
 KAES, Kabbayam had forwarded CC XXXII & part
 bill amounting to Rs. 1,45,64,550/- in favour of
 M/s BHEL - LIT Consortium for the subject work.
 The bill is verified as DB and put up herewith
 following observations.

As per agreement conditions, the
 official date of commencement and completion
 the above work were 10.11.2003 and 10.05.2004
 respectively. The contractor had commenced the
 on 10.12.2003. As per this cc, 18 items are
 claimed and the details are furnished below:

I. PLANNING DESIGN AND ENGINEER

1. Submission of overall planning report

uptodate quantity - 100%.

Serial: Nil

already admitted

13

2. Submission of report on additional site investigations

update quantity - 100%

Balance - Nil

claim already admitted.

3. Submission of report on hydraulic model test.

update quantity - 100%

Balance - Nil

claim already admitted

4. Supply of detailed construction drawing

This item is being operated from the field as 2 subheads.

a) 50% payment on submission

update quantity - 98%

Balance - 2%

There isn't any supporting calculation to arriving the 2% balance claim. As per annexure II, corresponds to the progressive invoice of M/s L&T. AE had mentioned that, 2% payment recommended in this bill, considering the progress of work. The method of % assessment is not known from the supporting details and measurement. Hence the recommended claim cannot be verified from

08.

b) 50% payment against approval

update quantity - 66.17%

KEE I/Pr

to all

16

details of completed constructions costing Rs 277.2 lacs. Without any supporting details, the claims cannot be verified from OB.

6. Forming of new roads if required

uptodate quantity - 38.297%
Simulant - 6%

As per the measurement part vide page 21 of ms 72/05-06, there is not any supporting details for the 6% measurement. The percentage assessment so far made is not known to the office. Without any supporting details and the BOB, the recommended claims cannot be verified from OB.

A321

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Other Recoveries

FO
P.A.

As proposed by the Exec. Engineer
Mortgage division Kattayam vide letter no:
1114/1117 conn (06.07/688 dtd 20.02.07, an
amount of Rs. 97,459/- may be recovered from
the contractor towards the HT connection charges
for the month of January 2007.

It is noted that, the recovery toward
the rent of quarters allocated to MLI CAT
has been effected upto 31.10.06 by 30th ce.
Since the recovery towards rent for the
period from 1.11.07 to 30.01.07 is not
been proposed, AB may be asked to verify
and recover the quarterly rent for the
quarter from this ce, since the quarterly
rent is a fixed amount (Rs. 56,970/-)

The bill along with mbook and connected
documents may be transmitted to AB for
audit and further actions.

- Accty mbookes Abstract - 56/06.07
- 80/05.06, 85/05.06, 81/05.06,
- 93/05.06, 92/05.06, 72/05.06,
- 52/05.06, 44/05.06, 17/04.05, 13/04.05
- 3/06.07, 74/05.06, 2/06.07 (lands)

2) Bill in duplicate with progressive
invoice and connected documents.

18

22/11/07
21/11/07
23/11/07

There are no supporting calculations or drawings in the bill of materials is arriving to 11.76%.
Measurement is not mentioned anywhere. Hence the recommended claims cannot be verified from the bill.

2. CIVIL WORKS

1. INFRASTRUCTURE WORKS AND CONSTRUCTION FACILITIES

1. Site mobilisation of staff

uptodate quantity - 100%

Simulant - Nil

claims already admitted

2. General mobilisation of contractor's construction plant

uptodate quantity - 100%

Simulant - Nil

claims already admitted

3. Site installation of contractor's construction

uptodate quantity - 100%

Simulant - Nil

claims already admitted

4. Construction of contractor's camp, office

uptodate quantity - 100%

Simulant - 2%

There are no supporting details/calculation in the corresponding measurement vide page 1.

32 I / 1
7

mbook 7265-06 and this¹⁵ of year is not known, which are the constructions completed, while claiming 100% payment for this item. As per schedule 23 of the agreement, 100% payment is for taking over of Infrastructure works. Taking over certificate of the completed constructions is not seen furnished along with progressive invoice and connected documents. Hence AELACE may be asked to furnish the cost taking over certificate before effecting payment for this item.

As per annexure V of the progressive invoice, ~~It~~ AELAC mentioned that '2% payment recommended, considering the progress achieved in main civil works'. As per section - II - volume I of the agreement, main civil works comprise water conductor systems, powerhouse, Adit, switchyard and tail race channel. Evaluating the progress of Infrastructure works based on the progress of above works is near meaningless.

As the 100% payment is for taking over, it is understood that, payment is in accordance with value of items taken over by the Board and Board needs to take over completed constructions worth Rs. 279.20 lakhs. Since 100% payment is claimed as on this date,

AELAC
trial
of

⑥

171

②

~~Confidential~~KERALA STATE ELECTRICITY BOARD

No. CEC(WB)/KES/20/97

Addendum No. 1

Sub:- Kuttiyadi Additional Extension Scheme - (2x50MW) - Bid Documents for the turn-key execution with financial package.

The following modifications are hereby made to the bid documents.

- (1) Add footnote to the schedule of payments (page no. 106 of Vol IV - Price Bid) as follows:-

"For the main civil works, the interim valuation certificate will be prepared based on the measurements taken and mutually agreed between KSEB and the contractor."

- (2) Sub clause no. "13.3 A" to be added to the heading "Measurements" under clause 13.3 of ITB (Page 69 of Vol I - Commercial)

- (3) Add the following sentence to sub clause (1) under the heading "measurements" (page 69 of Vol I - Commercial)

"The measurement of lump sum items will be based on the work completed as a percentage of the total work."

- (4) Clause 12.9 of General Conditions (page 65 of Vol I - Commercial) Second paragraph, last sentence add "whichever is later". The paragraph will be as follows.

"The proforma certificate shall be given ----- tested all the works including remedying any defects whichever is later."

- (5) Clause 13.8 of General Conditions

In the paragraph, the word "discount rate" shall be replaced with "Bank Rate". The paragraph will be as follows:

"If the payment of any sum payable under sub clause 13.7 is delayed, the contractor shall be entitled to receive financing charges at the

annual rate one percentage point above the bank rate of the Reserve Bank of India."

- (6) Clause ii of Instruction to Bidders - Bid Security (page 16 of Vol I - Commercial)
Second paragraph shall be modified as follows.

"The bid security shall, at the bidders option, be in the form of a Demand draft on a bank guarantee from a reputable bank located in India or by a foreign bank through a correspondent nationalised bank located in India"

Copies of this addendum shall be signed and sealed and attached with the bid documents, while submitting the bids.



CHIEF ENGINEER (CONSTRUCTION CIVIL)

125 - 177 - Bond 01/12/99

KERALA STATE ELECTRICITY BOARD

ABSTRACT

Kuttiyadi Hydro Electric Project - Additional Extension Scheme (2x50 MW) - Bid documents for Turnkey Execution and financing of Kuttiyadi Additional Extension Scheme (2x50 MW) - Modification to certain clauses of bid documents - Orders issued.

TECHNICAL CELL

B.O.No.2849/99 (TC5-1598/99) Thiruvananthapuram Dated : 21/12/1999

- Read : 1) B.O.No.2629/99(TC5-1598/99) dt. 30/11/1999.
2) Note No.CEC(WB)/KES/20/97 dt. 01/12/1999 of the Chief Engineer (CC).

ORDER

The Board, in its order read as first paper above, had interalia, directed the Chief Engineer (CC), to modify the stage payments schedule in clause 13.4 of the General condition of contract which forms part of bid documents for Kuttiyadi Extension Scheme (2x50 MW) suitably, and to place before the Full Time Members and Chairman for approval.

2. Accordingly the Chief Engineer (Civil Construction), vide note read as second paper above, has suggested certain modifications in the clause relating to schedule of payments and addition of suitable clause for measurement of works:

3. Having considered the recommendations of the Chief Engineer (Civil Construction) the Board hereby issues the following orders:

- (1) To modify the schedule of payments incorporated in Vol.IV of the Bid Documents as follows:
 - a) For Main Civil Works under item 3 in the schedule monthly payment as per clause 13.7 in Vol.I of the Bid Document, shall be effected as per the measurements accepted by the KS EB and the contractor.
 - b) To recast the foot note to the schedule of payments, as follows :
"At each of the above stages and monthly payments, retention money at 10% would be deducted before effecting payment in addition to the deductions towards advance payments if any"
 - c) For the main civil works, the Interim valuation certificate, will be prepared based on the measurements taken and mutually agreed between KSE Board and the contractor.
- (2) To insert a new subclause namely 13.3 A as under between clauses 13.3 and 13.4 in Vol. I of the Bid Documents.

13/3 A Measurements : Measurement of work shall be taken in accordance with the procedure laid down hereunder.

- i) All items having a financial value shall be measured in the manner prescribed by the KSEB, so that a complete record is maintained of all works performed under the contract. All records shall be made in two copies, one copy shall be kept by the Employers Representative and the other copy by the contractor. The measurement of lumpsum items will be based on the work completed as a percentage of the total work.
- ii) Measurements shall be taken jointly by the Employer's Representative or his authorised representative and the contractor or his authorised representative.
- iii) Measurement shall be signed and dated by both parties on the site. If there is any dispute in any of the measurements, a note to that effect shall be made in the measurement record against the disputed items and such note shall be signed and dated by both parties engaged in taking the measurements and the parties shall discuss and resolve the same immediately thereafter.

(3) To recast the item No. (vii) in para 3 of the B.O read as first paper above, as "To limit the total retention including the performance guarantee to 15 % of the bill amount".

4. The Bid documents and the Board Order read as first paper will stand modified to the above extent.

By Order of the Board
Sd/-
(M. Viswamony)
Secretary

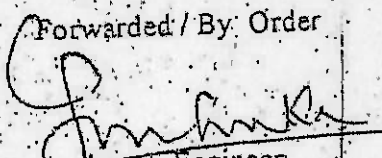
To

The Chief Engineer (Civil Construction)

Copy to:-

1. The Chief Engineer (O&M) Hydro.
2. The Chief Engineer (CIELA)
3. The Financial Adviser / Chief Internal Auditor
4. The Deputy Chief Engineer, MIS.
5. The Dy. Secretary (Law)
6. The RAO/RAO/SOA
7. TA to Chairman/Member(T)/Member(D).
8. PA to Member (Finance)/Secretary
9. The stock file / File.

Forwarded / By Order


Assistant Engineer

Annexure - 5

C No & Month of bill	Actual area constructed(m ²)	Area considered payment(m ²)	Percentage of payment made	Cumulative percentage
1&2nd CC(2&3/04)	884	605.8	19.7	19.7
3rd CC(4/2004)	125	153.75	5	24.7
4th CC(5/2004)	0	0	0	24.7
5th CC(6/2004)	232	246	8	32.7
6th CC(7/2004)	209	30.75	1	33.7
7th CC(12/2004)	0	0	0	33.7
8th CC(1/2005)	0	0	0	33.7
9th CC(2/2005)	122	461.25	15	33.7
10th CC(3/2005)	0	0	0	48.7
11th CC(5/2005)	1400	492	16	64.7
12th CC(6/2005)	0	0	0	64.7
13th CC(7/2005)	0	0	0	64.7
14th CC(8/2005)	0	0	0	64.7
15th CC(9/2005)	0	0	0	64.7
16th CC(10/2005)	0	0	0	64.7
17th CC(11/2005)	557	184.5	6	70.7
18th CC(12/2005)	0	0	0	70.7
19th CC(1/2006)	0	307.5	10	80.7
20th CC(2/2006)	0	0	0	80.7
21st CC(3/2006)	0	215.25	7	87.7
22nd CC(4/2006)	0	0	0	87.7
23rd CC(5/2006)	0	70.725	2.3	90
24th CC(6/2006)	0	0	0	90
25th CC(7/2006)	0	0	0	90
26th CC(8/2006)	0	153.75	5	95
27th CC(9/2006)	0	0	0	95
28th CC(10/2006)	0	0	0	95
29th CC(11/2006)	0	0	0	95
30th CC(12/2006)	0	92.25	3	98
31st CC(1/2007)	0	0	0	98
32nd CC(2/2007)	0	61.5	2	100

ANNEXURE - 6

Kuttaiyadi Additional Extension Scheme

15 (b)

Project Profile

VII. CONSTRUCTION FACILITIES

7.1 Labour

Both skilled and unskilled labour is available in the region of the project to satisfy the requirements of the work.

7.2 Construction materials

The nearest cement factory is located at Valayar, which is 100 km from the site. Valayar and Quilandy are connected by rail.

Rubble and sand are available from local quarries. The excavation of tunnel and Surge shaft are also expected to yield good rubble for use in the works.

Bricks are available at Kozhikode.

Other materials required in connection with the work are also easily available from Kozhikode and Emakulam.

7.3 Working season

The sites of the main project works are located in a region where the incidence of rain fall is high i.e. above 5080 mm (200 inches). South - West monsoon prevails during June to September and North - East monsoon during October and November.

7.4 Accommodation

At present KSEB is having its own facility for accommodating its staff. Land if available will be provided for constructing quarters/ dormitories for accommodating the staff and workers of the Contractor and for the construction of offices, storage facilities, etc. If land is not available to the extent required the contractor will have to arrange the additional and required at his own expense.

sd/-
Chief Engineer (Civil) Construction
K. S. E. 2

ANNEXURE - 7

Kuliyil Additional Extension Scheme

Specifications

CIVIL WORKS

1.1 Preamble and Scope

1.1.1 Preamble

The Technical Specifications described hereunder broadly cover the permanent Civil Works of the project as brought out in the 'Project Profile', and in 'Bill of Quantities' for Civil Works. The items of work are based on Owner's Preliminary Designs as enclosed in the Project Profile. The items of work may be modified/alterd to meet the requirements of Bidders Design and Engineering of the Permanent Civil Works. Accordingly, the Technical Specifications shall require additions/alterations to conform to Bidder's Design & Engineering mutually agreed to with the KSEB. In any case, the Technical Specifications shall be as per Bureau of Indian Standards or corresponding International Standards; as mutually agreed to between the KSEB and the Contractor, during preparation of detailed Design & Drawings and approval thereof.

1.1.2 Scope of Works

The Works to be constructed by the Contractor under the design, build and turnkey contract are summarised as follows:

1.1.2.1 Temporary Works

- Provision of site general construction facilities including temporary housing, work facilities and services of operation and maintenance.
- Temporary works for water diversion using cofferdam and preparatory foundation works for intake arrangements.
- Minimum lengths of temporary roads.
- Construction adit at Surge shaft including finishing works.
- At the main powerhouse, a temporary bund at the confluence of the tailrace with Kakkayam Thodu.

1.1.2.2 Permanent Civil Works

- 705m length of power tunnel (Horse shoe) of 3.0m finished diameter with concrete lining.
- Permanent access at specified points along the tunnel route.
- One (1) surge tank of 5m internal diameter with RC lining from the sill level upto +77.1.
- One (1) Low pressure penstock of 2m internal diameter with steel lining and back filled with concrete.
- One (1) steel surface penstock of 2.05m Outer diameter (Outer diameter kept constant) with bifurcation's and other specials from valve house to powerhouse.
- Civil work for the main powerhouse (2x50MW) including architectural/ building finishes.
- Tailrace channel leading to river.
- Civil works for a high voltage switchyard located adjacent to the main powerhouse.
- River training works for the Kakkayam Thodu and at other required places.

Documents:
Engineer (Civil) Construction

K. S. E. B

2278

Annexure - 8

General Conditions

Contractor's Schedule

... will be valued @ ... on 1st February of each year.

Each of the Contractor's application for interim valuation certificate shall include a credit valuation for power supplied by the KSEB based on the above rates and on approved meter readings.

The Contractor shall remove and dispose of these temporary constructions power facilities prior to completion of the Works except for the 11 kv spur line of the KSEB.

Water Supply

The contractor will have to make his own arrangements for water supply from the river or nearby rivulets for his camp and colonies and for the Works proper.

4.20 Employer Supplied Machinery and Materials

The Employer will not undertake to provide any items of machinery and materials.

4.21 Clearance of Site

During the execution of the Works, the Contractor shall keep the site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

Upon the issue of any Taking-Over Certificate, the Contractor shall clear away and remove, from the part of the Site and Works to which such Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave such part of the Site and the Works in a clean and safe condition to the satisfaction of the Employer's Representative. Except, that, the Contractor shall be entitled to retain on Site, until the expiry of the Contract Period, such Contractor's Equipment, Materials and Temporary Works as required by him for the purpose of fulfilling his obligations under the Contract.

If the Contractor fails to remove, by 28 days after the issue of the Performance Certificate, any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works, the Employer may sell or otherwise dispose of such items. The Employer shall be entitled to retain, from the proceeds of such sale, a sum sufficient to meet the costs incurred in connection with the sale or disposal, and in restoring the Site. Any balance of the proceeds shall be paid to the Contractor. If the proceeds of the sale are insufficient to meet the Employer's costs, the outstanding balance shall be recoverable from the Contractor by the Employer.

ANNEXURE-9

PROJECT MANAGER

ELECTRIC

BOARD

6



Civil Circle
Kakkayam
Kozhikode, Kerala
Pin: 673 615

KCC/DB/03/2008-09/75 Date: 5-03-2011

The Project Manager, Additional General Manager,
T.S.L&T, H/s.BHEL,
Kakkayam KAES site
Kakkayam

Sub:- Implementation of Kakkayam SHEP (2x1.5MW) – Clearing materials and sheds – reg:-
Ref:- EE/KSHEP/01/08-09/200 dt. 19-03-2011

Handwritten notes:
To Mr. (Name)
Kakkayam
KTR Division
Kozhikode
Kerala
10-03-2011

This is to inform you that the construction of civil works of Kakkayam Small Hydro Electric Project (2x1.5MW) has to be commenced. Hence you are requested to remove surplus material, wreckage, rubbish and temporary works in the Power House site immediately as per clause 4.21 of G.C.C of the Agreement. You may clear it in the other sites also as per this provision.

The above direction has been issued for facilitating the construction activities of Kakkayam SHEP (3MW).

Yours faithfully,

Signature
PROJECT MANAGER, KAES.

Copy to the Executive Engineer, Erection Division, Kakkayam for necessary action.
Copy to the Executive Engineer, KTR Division and additional charge KAES Kakkayam for necessary action.
Copy to file.