



## KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)

CIN:U40100KL2011SGC027424

Reg. Office: Vidyuthi Bhavanam, Pattom, Thiruvananthapuram – 695004, Kerala

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### Abstract

Execution of Balance Civil and Hydro Mechanical works of Thottiyar Hydro Electric Project (40 MW/ 99 MU) –Contract with M/s PRIL-SSIPL Consortium- Excess quantity and Extra items- sanctioned– orders issued.

### CORPORATE OFFICE (SBU-G/C)

B.O (FTD) No.457/2020(DGC/AEE-III//THYR/2014 ) TVPM Dated 02.07.2020

1. Agreement No.01/CECC/2018-19 dated 05-04-2018.
2. B.O (DB) No. 3291/2017(DGC /AEE-III/THYR/2014) TVPM dated 30.12.2017.
3. Minutes of 2<sup>nd</sup> & 3<sup>rd</sup> Project Monitoring Committee meeting held on 26.08.2019 &27.12.2019 respectively.
4. Note No.CECCS/THYP/2016 dated 01.06.2020 &16.06.2020 of the Chief Engineer(CC) South.
5. Remarks No. Tender-1/25/2020 of the financial Adviser dated 13.03.2020.
6. Note No..DGC/AEE-III/ 3021/90 dated 18.06.2020 of the Director(Gen -Civil) to the Full Time Directors (Agenda item No.50/6/2020).

### ORDER

The contract for the execution of the balance civil and Hydro Mechanical works of Thottiyar Hydro Electric Project was awarded to a consortium formed by M/s P&R INFRA Projects Ltd (Lead Bidder) & M/s Shri Saravana Industries Pvt Ltd ,at their quoted price of Rs 97,76,73,638/- (Rupees Ninety seven crore seventy six lakh seventy three thousand six hundred and thirty eight only) inclusive of GST @ 18% on 04.01.2018 with the time of completion as 26 months which expired on 03.04.2020. Now 24.5% of the balance civil works has been completed.

The Chief Engineer (CC- South) as per note read as 4<sup>th</sup> above has reported that during the actual execution of civil works, some extra items for ₹3,95,380/- and excess quantities for ₹ 3,65,26,571/- are necessitated for the satisfactory completion of the work. This was placed in the 2<sup>nd</sup> & 3<sup>rd</sup> Project Monitoring Committee (PMC),and the members in consensus agreed that the said works are necessary for satisfactory completion of the project and hence recommended for taking up with the Board for approval.

The Financial adviser has furnished remarks as per letter read as 5<sup>th</sup> above. The Chief Engineer has furnished justification for the excess quantity and extra items and the details of savings in item Nos. 4.24 & 5.48 amounting to ₹4,13,12,587/- which exceeds the financial

commitment for excess quantities/extra item (₹3,69,21,951/-). Thus actual amount will be within the sanctioned PAC of ₹ 97,76,73,638/-.

The Chief Engineer (CC-South) has requested sanction for extra items amounting to ₹ 3,95,380/- (Rupees Three Lakhs Ninety Five Thousand Three Hundred and Eighty only) and the excess quantity executed /to be executed amounting to ₹3,65,26,571/- (Rupees Three crore Sixtyfive lakh Twentysix thousand Five Hundred and Seveny one only) and the savings envisaged amounts to ₹ 4,13,12,587/-.There is no additional financial commitment due to excess quantities & extra items while considering savings.

The matter was placed before Full Time Directors as per note read 6 above.Having considered the matter in detail,the Full Time Directors in its meeting held on, 25.06.2020 resolved to accord sanction for extra items amounting to ₹ 3,95,380/- (Rupees Three Lakhs Ninety Five Thousand Three Hundred and Eighty only)as per Annexure-I and the excess quantity executed /to be executed amounting to ₹ 3,65,26,571/- (Rupees Three crore Sixtyfive lakh Twentysix thousand Five Hundred and Seveny one only) as per Annexure-II for the satisfactory completion of Thottiyar HEP as recommended by the Project Monitoring Committee without any additional financial commitment considering the savings of ₹ 4,13,12,587/-(Rupees Four crore Thirteen lakh Twelve thousand Five hundred and Eighty seven only) as per Annexure-III .

Orders are issued accordingly and the Chief Engineer (Civil-Construction) South shall take further necessary action.

By order of the Full Time Directors  
Sd/-

LEKHA.G  
Company Secretary( in charge )

To

The Chief Engineer (Civil-Construction) South.

Copy to:-

The Chief Internal Auditor/ Financial Adviser

The RAO/The RAO

The TA to Chairman&MD/Director (GE&SCM)/ Director (D.IT&HRM)

Director (T.S.O&REES) /Director( PLG&S)

The Project Manager, Thottiyar SHEP

The Company Secretary.

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Forwarded/By Order

  
Assistant Executive Engineer



**EXECUTION OF THOTTIYAR HYDRO ELECTRIC PROJECT (40 MW)****ANNEXURE - I - DETAILS OF EXTRA ITEMS**

Item No.	Description of work	Total Quantity			Rate applying tender deduction	Amount for excess quantity	Remarks
		Executed	Anticipated	Total			
	<b>Power House- 3rd PMC</b>						
1	Welding V cut ends of reinforcement bars including cost of electrodes, current Charges & hire charge of T&P 25mm dia bars as per the directions of the Engineer in Charge	0.00 Nos	550 Nos	550.00 Nos	674.600 /Nos	3,71,030.00	Extra item necessitated as per the site conditions.
2	Welding V cut ends of reinforcement bars including cost of electrodes, current Charges & hire charge of T&P 20mm dia bars as per the directions of the Engineer in Charge	0.00 Nos	50 Nos	50 Nos	487.000 /Nos	24,350.00	Extra item necessitated as per the site conditions.
		Total				3,95,380.00	
					<b>ROUNDED TO</b>	<b>3,95,380.00</b>	

**(Rupees Three Lakh Ninety Five Thousand Three Hundred and Eighty only)**

Forwarded / By Order.

  
 Assistant Executive Engineer

  
 COMPANY SECRETARY IN CHARGE

EXECUTION OF THOTTIYAR HYDRO ELECTRIC PROJECT (40 MW)

ANNEXURE - II - DETAILS OF EXCESS QUANTITIES

Item No.	Description of work	Quantity as per original Agt	Total Quantity			Excess Quantity	Rate	Amount for excess quantity	Remarks
			Executed Upto 31.07.19	Anticipated	Total				
09	Cement concrete M20MSA 40 for retaining walls at all elevations including all form works, rinding, laying, consolidating with vibrator, curing etc. complete with all lead and lift as per specifications excluding cost of cement for track formation as per the directions of the Engineer in Charge.	1500 m3	812.21 m3	3587.787 m3	4400.00 m3	2900.00 m3	7107.5 m3	3,26,11,750.00	During the term of the contract in August 2018, a lot of new streams crossing the penstock track were formed. As a result of the foundation of the soil, while the excavation of the penstock track were progressing, the land adjoining the excavated track developed a tendency to slip. Since limited area of forest land was acquired for the project, sufficient side slope for maintaining stability could not be provided and this necessitated the additional length and size of the retaining wall and hence the quantity exceeded over the sanctioned quantity.
22	Cement concrete M20MSA20 for pier of penstock bridge including all charges for form works, cost, conveyance, rinding, laying, curing etc. complete, excluding cost of cement as per specifications as per the directions of the Engineer in Charge	260 m3	0.00 m3	460.00 m3	460.00 m3	200.00 m3	7048.25 m3	14,09,650.00	The hard strata obtained at site was nearly at 10.00 m depth which was far below than expected and considerably more than the original proposal. Hence changes in the design of the pier was necessitated to suit the site condition and to avoid the curved and tapered shape of the pier of the bridge to facilitate the ease of construction, resulting in the additional/ excess quantity of 200m3 of concrete.



Description of work	Quantity as per original Agt	Total Quantity			Excess Quantity	Rate	Amount for excess quantity	Remarks
		Executed Upto 31.07.19	Anticipated	Total				
Reinforcement (conforming to BIS and from approved primary steel producers who are using iron ore as the basic raw material as per technical specifications) for RCC work using steel bent, tied and placed in position as per design and specifications at all elevations and as per the directions of the Engineer in Charge	157000 kg	9899.00 kg	182101.00 kg	192000.00 kg	35000.00 kg	90.85 kg	31,79,750.00	
Usage of cement as per technical specification including cost, conveyance and handling Charges for various items of work for which the cost is not included	5000 MT	496.385 MT	5518.12 MT	6014.50 MT	1014.50 MT	11426.25 MT	1,15,91,930.63	Excess quantity that will be resulted due to the excess quantities in concrete of bridge pier and retaining wall.
Supply and usage of admixture at site including cost of admixture, conveyance charge, storage arrangements, if necessary etc complete as per the directions of the Engineer in Charge.	5000 Kg	4956.00 Kg	10189.00 Kg	15145.00 Kg	10145.00 Kg	73.30 Kg	7,43,628.50	

Item No.	Description of work	Quantity as per original Agt	Total Quantity			Excess Quantity	Rate	Amount for excess quantity	Remarks
			Executed Upto 31.07.19	Anticipated	Total				
1.4	Rubble pitching/ Rough stone dry packing to lines and levels including cost of all materials, conveyance, labour charges, etc. complete as per specifications as per the directions of the Engineer in Charge	200 m3	180.00 m3	720.00 m3	900.00 m3	700.00 m3	2861.10 m3	20,02,770.00	Excess quantity was estimated for the stabilization of the wall and encountered at the base of the counterfort retaining wall. Quantity associated based on the soft stratum identified during the excavation of the other 30m length of the wall.
								3,95,39,479.13	
								30,12,908.31	
								Less Tender Deduction @ 7.62%	
								Net Amount	
								3,65,26,570.82	
								<b>ROUNDED TO</b>	
								<b>3,65,26,571.00</b>	

(Rupees Three Crore Sixty Five Lakh Twenty Six Thousand Five Hundred and Seventy One only)

Forwarded / By Order

Assistant Executive Engineer

sd/-  
COMPANY SECRETARY IN CHARGE



**EXECUTION OF THOTTIYAR HYDRO ELECTRIC PROJECT (40MW)**

**ANNEXURE - III - Savings Anticipated**

Description of work	Agt. Qty/ Revised Qty	Quantity not to be executed	Rate	Savings	Remarks
5.48 Fabrication and erection of perstock bridge steel structures, track rails and other embedded parts etc. complete for perstock with painting of one coat of iron primer and two coats of synthetic enamel paint according to the specifications and approved design as per the directions of the Engineer in Charge	1400 QM	882 QM	13929.65 /Qd	1,22,85,951.30	Due to omission of permanent rail track between A1 to A7 & arithmetic error in sanctioned estimate
Reinforcement (conforming to BIS and from approved primary steel producers who are using iron ore as the basic raw material as per technical specifications) for RCC work using steel bent, tied and placed in position as per design and specifications at all elevations as per direction of Engineer in Charge	1690000 Kg	357600 Kg	90.7 /Kg	3,24,34,320.00	As per site conditions this quantity is not required. Hence savings.
<b>Total</b>				<b>4,47,20,271.30</b>	
				<b>34,07,684.67</b>	
				<b>4,13,12,586.63</b>	
				<b>4,13,12,587.00</b>	
					<b>ROUNDED TO</b>
					<b>Less Tender Deduction @ 7.62 %</b>
					<b>Net Amount (Savings)</b>

Forwarded / By Order

  
Assistant Executive Engineer

sd/-

COMPANY SECRETARY IN CHARGE