

Supply, Construction, Testing, and Commissioning of 66 kV Double Circuit Transmission Line from Sementokha Substation to Dechencholing Substation,
(TENDER NO. BPC/C&PD/CMS/TENDER-2026/01)

Sl No.	Reference	Description	Bidder's Query	Clarification
1	ITB 4.5	<p>General</p> <p>The EPC bidder shall have experience of supply, erection, testing and commissioning of at least 50 km of 66Kv or above voltages in a single contract in hilly terrain in the last five (5) years.</p> <p>Specific</p> <p>i. The EPC bidder shall have experience of Aluminium Conductor Composite Core (ACCC) conductor stringing at least 20km in hilly terrain.</p>	<p>As per the General eligibility requirement, the EPC bidder is required to have experience of execution in hilly terrain. Additionally, under the Specific requirement, experience of ACCC conductor stringing of at least 20 km in hilly terrain has been stipulated.</p> <p>In this regard, it is submitted that the majority of ACCC conductor stringing projects executed in India to date have been undertaken in plain and undulating terrain in congested corridors.</p> <p>Considering the above, it is requested that the Specific experience requirement for ACCC conductor stringing of at least 20 km may kindly be allowed in plain and/or undulating terrain, while retaining the General requirement of hilly terrain experience for overall line construction works.</p>	<p>The financial qualification requirements shall remain unchanged from the BDS (ITB 4.5) and the technical qualification requirements shall be as specified in Addendum No. 2.</p>
2	ITB 16.1 & 16.2	The Bidder shall furnish a bid security amounting to Nu 4.03 million, which shall be valid up to June 05, 2026.	Kindly confirm whether the bid security can be given in Indian Rupees as per the validity requirement.	No change to the Tender Stipulation.
3	Price Adjustment	Provision related to Price Adjustment	The major components of this project involve imported materials, particularly from India, where the prices of key inputs such as aluminum, steel, insulators, etc. are highly volatile and subject to frequent market fluctuations, on weekly basis. In the absence of a price adjustment mechanism, bidders are compelled to factor in higher risk margins, which may lead to inflated bid prices and unbalanced price assumptions among bidders. The inclusion of a price adjustment clause would be mutually beneficial to both the client and all the bidders. It would enable all bidders to quote more realistic and competitive prices, while ensuring fair and equitable risk sharing during the contract execution period. Therefore, we respectfully request the inclusion of a price adjustment clause as per IEEMA index PY formula.	No change to the Tender Stipulation.
4	KMZ File	GPS Location of the Project (Google Map/ KMZ File)	The GPS location of the project, including a KMZ file, would be extremely helpful for all bidders to fully understand the project site. This would allow bidders to accurately assess existing access roads, tower locations, and route alignment of the transmission line.	Attached as KMZ file (66kV TL from Sementokha to Dechencholing).
5	Bid submission	Time extension for submission of bid	The site visit was conducted on 28 January and the pre-bid meeting on 29 January. In this regard, we respectfully submit that the available time between the site visit and the bid submission date is very limited for the proper preparation of a realistic and competitive price bid. Considering the nature, complexity, and size of the works, bidders are required to undertake a detailed assessment of site conditions, access constraints, terrain, in particular, the evaluation and rate analysis of head-loading requirements for material transportation, which constitutes a critical cost component for this project. Therefore, we kindly request you to consider time extension for the bid submission of further three weeks.	No change to the Tender Stipulation.
6	Road access	Possibility of Construction of Access road along the ROW	We would like to inquire about the possibility of Construction of Access road along the ROW and if your office would help in facilitating the necessary clearances, as the access road would be a critical component to finish the project on time.	Noted
7	Section 4, Technical Specifications 2.2 a.	Unbalanced loads	It states that the contractor shall perform the and submit supporting calculations demonstrating that installation of ACCC in Circuit 2 will not produce unbalanced loads(Including static, wind, ice, and dynamic effects) requiring modification of tower members or foundation.	The offered ACCC conductor shall match design parameters of ACSR Wolf conductor for which sag-tension calculations are furnished as Annexure I.
8	Section 9	Preamble to Price Schedule	Preamble to Price Schedule	Preamble to Price Schedule in the section 9 (BoQ) shall be replaced by Annexure II.
9	Technical Clarification	Technical Clarification: ACSR Conductor Grease Requirements	We have noted a discrepancy regarding grease requirements for the ACSR Conductor between two sections of the technical specifications: Chapter 7b (ACSR Conductor): Specifies that inner layers must be covered with an approved grease (e.g., Shell Ensis 356 or equivalent) and that interstices between outer strands be completely filled. Chapter 11 (3.0 ACSR Conductor - WOLF): Explicitly states under Point 4: "Requirement of Grease (Yes/No)	Chapter 11 (3.0 ACSR Conductor - WOLF): Explicitly states under Point 4: "Requirement of Grease (Yes/No) shall supersede chapter 7b (ACSR Conductor).

BHUTAN POWER CORPORATION LIMITED								
SAG TENSION CALCULATION FOR TOWERS UPTO DD+9								
Sheet 1								
66 kV D/C Semtokha-Dechencholing Transmission Line								
NAME OF THE GROUNDWIRE :					Wolf	<u>CONDUCTOR</u>		
AREA :				mm ²	194.9			
DIA :				mm	18.13			
WT. OF CONDUCTOR :				Kg/m	0.726			
ULTIMATE TENSILE STRENGTH :				Kg/m	6867			
MODULUS OF ELASTICITY :				Kg/mm ²	8154.94			
MAX. WORKING SPAN :				m	250			
MIN. TEMPERATURE :				oC	0			
EVERYDAY TEMPERATURE :				oC	32			
MAX. TEMPERATURE :				oC	75			
COEFF. OF LINEAR EXPANSION :				/ oC	0.0000178			
Wind Pressure (Kg/m ²)		Temperature (oC)	Ice Formation (mm)	SaG (m)	Tension (kg)	% UTS	Span (m)	Remarks
Initial	128	32	0	2.498	2271.00	33.07	250	
	0	32	0	6.959	815.00	11.87	250	
	46.08	0	0	-	1324.88	19.29	250	
	0	75	0	-	704.83	10.26	250	
	0	0	0	-	934.55	13.61	250	

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SAG TENSION CALCULATION FOR TOWERS UPTO DD+9								
Sheet 2								
66 kV D/C Semtokha-Dechencholing Transmission Line								
NAME OF THE GROUNDWIRE :				OPGW		OPTICAL GROUND WIRE		
AREA :				mm2	136			
DIA :				mm	15.5			
WT. OF CONDUCTOR :				Kg/m	0.567			
ULTIMATE TENSILE STRENGTH :				Kg/m	8311			
MODULUS OF ELASTICITY :				Kg/mm2	9555			
MAX. WORKING SPAN :				m	250			
MIN. TEMPERATURE :				oC	0			
EVERYDAY TEMPERATURE :				oC	32			
MAX. TEMPERATURE :				oC	53			
COEFF. OF LINEAR EXPANSION :				/ oC	0.0000176			
Wind Pressure (Kg/m2)		Temperature (oC)	Ice Formation (mm)	SaG (m)	Tension (kg)	% UTS	Span (m)	Remarks
Initial	159	32	0	2.183	2029	24.41343	250	
	0	32	0	6.265	707	8.506798	250	
	0	0	0		832.52	0.554669	250	
	57.24	0	0		2523.40	0.320021	250	
	0	53	0		647.21	0.135009	250	

SCHEDULE OF PRICES

Preamble:

1. The Contract is of item rate turnkey in nature and includes the definitive engineering and design that shall ultimately define actual quantities of work.
2. The provisional quantities of various items of work like supply, erection, testing and commissioning of electrical equipment; and miscellaneous work items for the proposed substation are given in the price schedule. However, the quantities may vary consequent to actual execution of the work. The payment shall be made for the actual quantities used for various items. Items with quantity 'LOT' will not be eligible for any variation in payment irrespective of the quantities of the constituent sub-items.
3. The Contract Price shall be adjusted for the actual and correct quantities as executed and duly approved by the Employer on the basis of the proposed all-inclusive unit rates to arrive at the final Contract Price. It should be noted that the item description should be read in aggregation with the technical specifications.
4. Wherever no quantity is given against any item in the Schedule of prices, a rate shall nevertheless be entered against that item. This rate shall be used, in case the item is required to be used during actual execution of the contract.
5. The prices shall be firm during entire execution of the Contract and no price adjustment will be applicable even due to force majeure situations.
6. It shall be a condition of this contract that the all-inclusive rates quoted in Schedule of Rates / Prices shall not be varied for reasons of change in respective quantities.
7. Further, it shall also be an important condition of this contract that there shall not be any change in Unit Rates of items consequent to revision of labour rates by the Royal Government of Bhutan.
8. The supply rate against each item shall be all-inclusive FAS (Free-At-Site) basis till project site and shall be inclusive of engineering, manufacture, supply, freight, packing, transport to actual work site, insurance on transit, insurance of materials/ goods at site, storage wherever necessary, unloading at site, forwarding charges, etc. together with all risks, liabilities, contingencies and obligations imposed and implied by the Contractor. The Bidder shall indicate the all-inclusive rate separately for each item.
9. Bidder shall quote FAS (Free-At-Site) prices inclusive of GST and/or CD till project site. Good and Services Tax (GST) and Customs Duty (CD) are applicable at the entry check point. The Contractor shall pay GST and/or CD and BPC shall reimburse the same as per actuals against submission of required documents for proof of payment at the entry point and in line with the contract terms and conditions.



10. All labour, supervision, inspection, erection/installation, testing and commissioning costs should be covered in Schedules for erection of substation equipment. The charges/ expenses to be incurred on testing and commissioning of the entire system as a whole shall be included in the prices for individual activities.
11. The total price for each activity should cover all costs and expenses required for supply, delivery, storage, erection, testing, commissioning and maintenance of works together with all risks, liabilities, contingencies, insurances and obligations imposed and implied by the Contractor.
12. Bidder shall enter prices in Schedule 3 for the supply of specified mandatory spares to site. These prices will be considered during bid evaluation. It shall not be binding on the Purchaser to procure all of these mandatory spares.
13. It shall be noted that such unit rates of constituent sub-items of "LOT" items in the price schedule are not meant for changing the "LOT" prices during actual execution and "LOT" price quoted by the bidder shall govern irrespective of quantity variation for the intended works. The rates of such sub-items can, however, be adopted for on-account payment purposes.
14. All items of work specified in the specifications have not been included in the price-schedule. The items of work not specifically called for in the Schedules are deemed to have been covered under the items called for, to leave the works complete, as per the specifications. The rate quoted by the Contractor shall be deemed to be all inclusive, to cover the smaller items specified / required but not included in the Price-Schedule. No price variation is applicable for this contract.
15. In addition to the points stipulated / highlighted in these clauses, all the conditions mentioned in the specifications, pertaining to measurement of quantities and unit rates of scheduled items shall apply.
16. It is deemed that the Bidder has understood the site conditions, environment, transport facilities, soil data etc. while preparing the price schedule and has adequately provided for them in his quoted prices. No claims of extra compensation will be payable for items and situations not foreseen and not incorporated by him in the schedules.
17. The wording under "Description" in the schedules is for subject matter guidance only. The Bidder's price shall include all works as specified in the specifications and drawings and all contractual obligations whether specifically mentioned or not.
18. The Bidder shall, if so desired by the Employer/ Engineer, furnish at any stage of the bidding or Contract execution, break-up of prices considered for any or all items covered in various activities, especially the LOT items.
19. Adjustment of Prices not in the schedule.



a) For Supply

If the rates contained in the Schedules are not directly applicable to the specific work in question, suitable rates shall be established by the Engineer reflecting the level of pricing in the Schedule of Prices.

Where the rates are not contained in the said Schedule, the amount shall be such as is in all the circumstances reasonable. Else the rates shall be derived based on joint observation of cost and the payment shall be made on the basis of quotation or the actual invoices from the manufacturer plus 20% (Twenty percent) towards Contractors overheads & profit, including taxes and deductions.

b) For Erection & Civil Works

“The determination of rates for the erection shall be based on the following”:

- i. Any item of the work, for which the unit rate is available in the contract (with or without specified quantity), shall be valued using the unit rate in the contract, irrespective of the quantity of the work.
- ii. If any altered or substituted work includes any item/work for which no rate is specified in the contract, the rate for such item/work shall be derived from the rate available in the contract for similar items based on appropriate measures like weights, volume, etc. as applicable.
- iii. If any altered or substituted work includes any item/work for which no rate is specified in the contract and the rate cannot be derived as indicated in (ii) above, then the rate of such item of work shall be worked out based on the rates available for such item in BSR 2024 (or latest BSR), if applicable in BSR 2024, the cost index on BSR 2024 being determined by the ratio of the value of the contract price for similar works (using the original estimated quantities in the contract) to the value of these similar works of the contract with BSR 2024 rates.
- iv. For deriving rate of those items, which do not exist in BSR 2024 (or latest BSR) or in the contract cannot be derived as indicated above, “similar class of work” shall be interpreted as items having similar procedure of working. The rates shall be derived by adding/deducting the additional/reduction material/labour components involved in the BSR 2024 and worked out as per the procedure provided in (iii) above.
- v. If the items altered/substituted works do not fall under all the above categories, the rates shall be fixed by the Engineer, on the basis of the other rates in the contract with proper rate analysis and/or using any other reasonable means. This shall be based on the joint observation of the cost for the actual payment made for such works plus 20% overhead and profit.

