Nepal Electricity Authority

(A Government of Nepal Undertaking)

Transmission Directorate

Grid Development Department

Burtibang Paudi-Amarai Tamghas Sandhikharka Gorushinge 132kv Transmission Line Project

Bidding Document

For

"Design, Supply, Installation, Testing and Commissioning of 132 kV Transmission line at Sandhikharka – Burtibang section."

International Competitive Bidding (ICB)

(Single Stage, Two Envelope Bidding Procedure)

IFB No: BPTSG-074/75-03

Employer: Nepal Electricity Authority

Burtibang Paudi-Amarai Tamghas Sandhikharka Gorushinge 132 kV Transmission Line Project

VOLUME III OF III

Date: 2018

Abbreviations

BD ..... Bidding Document

BDF…….. Bidding Forms

BDS..... Bid Data Sheet

BOQ …….. Bill of Quantities

COF …….. Contract Forms

DP ……. Development Partners

DoLIDAR ……. Department of Local Infrastructure Development and Agricultural Roads

ELI ……. Eligibility

EQC ..... Evaluation and Qualification Criteria

EXP …… Experience

FIN ……. Financial

GCC ..... General Conditions of Contract

GoN ..... Government of Nepal

ICB ..... International Competitive Bidding

ICC..... International Chamber of Commerce

ITB ..... Instructions to Bidders

JV …….. Joint Venture

LIT …….. Litigation

NCB ……... National Competitive Bidding

NEA……... Nepal Electricity Authority

PAN …… Permanent Account Number

PPA …….. Public Procurement Act

PPMO …… Public Procurement Monitoring Office

PPR ……... Public Procurement Regulations

PL ..... Profit and Loss

SBD..... Standard Bidding Document

SCC …….. Special Conditions of Contract

TS..... Technical Specifications

VAT …… Value Added Tax

WRQ …….. Works Requirements

BIDDING DOCUMENT

PRICE BID

PROCUREMENT OF WORKS
International Competitive Bidding (ICB)
Single Stage two Envelope Bidding

"Design, Supply, Installation, Testing and Commissioning of 132 kV Transmission line at Sandhikharka – Burtibang section."

Issued on:

Bid Document issued to:

Contract Identification No: BPTSG-074/75-03

Project Name : *Burtibang Paudi-Amarai Tamghas Sandhikharka Gorushinge 132kV Transmission Line Project*

Office Name : *Nepal Electricity Authority*

Office Address: *Kharipati, Bhaktapur, Nepal*

Financing Agency: Government of Nepal (GoN), Nepal

Table of Contents

Letter of Price Bid……2

Table of Price Adjustment Data……3

Schedues……..4

Bill of Quantities [Unit Rate Contract]……4

Schedules of Prices [Lump sum Contract] ……..4

Tables of Adjustment Data ……...5

Bill of Quantities ……..6

Section 6:- Preamble of Bill of Quantities……..8

Bill of Quantities…. ……12

Letter of Price Bid

The Bidder must accomplish the Letter of Price Bid in its letterhead clearly showing the Bidder's complete name and address.

Date: .....
Name of the contract: .....
Invitation for Bid No.: .....

To:
…….
....
We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8;
(b) We offer to execute in conformity with the Bidding Documents the following Works:

(c) The total price of our Bid, excluding any discounts offered in item (d) below is:

(d) The discounts offered and the methodology for their application are:

(e) Our bid shall be valid for a period of ***[insert validity period as specified in ITB 18.1]*** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;

(g) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive;

(i) We agree to permit the Employer/DP or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Employer; and

(j) If awarded the contract, the person named below shall act as our Representative:

Name: .....
In the capacity of .....
Signed ……...
Duly authorized to sign the Bid for and on behalf of ……
Date ……....

Table of Price Adjustment Data

(Not Applicable)

[To be used if Price Adjustment is applicable as per GCC 13.8]

Code	Index Description	Source of Index*	Base Value and Date	Employer's Proposed Weighting Range (coefficient)	Bidder's Proposed Weighting (coefficient)**
1	2	3	4	5	6
	Non - adjustable (A)			0.15	0.15
	Labor (b)				
	Materials (c)				
	Equipment usage (d)				
		Total			**1.00**

*Normally following source of index shall apply. Public Entity shall choose applicable Index for each item.

(a) Labor: "National Salary and Wage Rate Index"- "Construction Labor" of Nepal Rastra Bank
or
rate fixed by District Rate Fixation Committee

(b) Material:"National Wholesale Price Index" - Construction Materials" of Nepal Rastra Bank

(c) Equipment usage:
"National Wholesale Price Index" - "Transport Vehicles and Machinery Goods" of Nepal Rastra Bank
or

"Fuel" Price fixed by Nepal Oil Corporation.

** Bidders proposed weightings should be within the range specified by the Employer in column - 5

Schedules

Bill of Quantities [Unit Rate contract]

Schedules of Prices *[Lump sum contract]*

Schedule of Payment Currencies

For .....*insert name of Section of the Works* .....

Separate tables may be required if the various sections of the Works (or of the Bill of Quantities) will have local currency requirements. **[Insert the names of each Section of the Works]**.

	A	B	C	D
Name of Payment Currency	**Amount of Currency**	**Rate of Exchange to Local Currency**	**Local Currency Equivalent C = A x B**	**Percentage of Net Bid Price (NBP) 100xC / NBP**
Local currency		**1.00**		
Foreign Currency #1				
Foreign Currency #2				
Foreign Currency #3				
Net Bid Price				**100.00**
Provisional Sums Expressed in Local Currency		**1.00**		
BID PRICE				

Note:

- The rates of exchange shall be the selling rates 30 days prior to the deadline for submission of bids published by the source specified in BDS 15.
- Separate tables may be required, if the various sections of the works (or of the Bill of Quantities) will have local currency requirements. The Employer should insert the names of each section of the works.

Tables of Adjustment Data

Table A - Local Currency

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Local Currency Amount	Weighting renge (in %) to be applied	Bidder's Proposed Weighting
To be entered by the Employer	Nonadjustable labour fuel Steel Cement Bitumin - -	—	—	—	15 - - - - -	0.15 (fixed)
			Total		**1.00**	**1.00**

Table B - Foreign Currency

Name of Currency: .....

If the Bidder wishes to quote in more than one foreign currency, this table should be repeated for each foreign currency.

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Currency in Type/Amount	Equivalent in FC1	Bidder's Proposed Weighting
To be entered by the Employer	**Nonadjustable**	—	—	—		A: _____ B: _____ C: _____ D: _____ E: _____
				Total		**1.00**

Note:

As per GCC 1.1.3.1, "Base Date" means the date 30 days prior to the latest date for submission and completion of the tender

Bill of Quantities

Notes for Unit Rate Contracts :

Objectives

The objectives of the Bill of Quantities are:

(a) to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and

(b) when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Content

The Bill of Quantities should be divided generally into the following sections:

(a) Preamble;
(b) Work Items (grouped into parts);
(c) Day works Schedule;
(d) Provisional Sums; and
(e) Summary.

Preamble

The Preamble should indicate the inclusiveness of the unit prices, and should state the methods of measurement which have been adopted in the preparation of the Bill of Quantities and which are to be used for the measurement of any part of the works.

Work Items

The items in the Bill of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, or phasing of the Works, or considerations of cost. General items common to all parts of the works may be grouped as a separate section in the Bill of Quantities.

Day work Schedule

A Day work Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Employer of the realism of rates quoted by the Bidders, the Day work Schedule should normally comprise the following:

(a) A list of the various classes of labor, materials, and Constructional Plant for which basic day work rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a day work basis.

(b) Nominal quantities for each item of Day work, to be priced by each Bidder at Day work rates as bid. The rate to be entered by the Bidder against each basic Day work item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the Contract Data should state the manner in which they will be used, and under whose authority (usually the Project Manager's).

Summary

The Summary should contain a tabulation of the separate parts of the Bill of Quantities carried forward, with provisional sums for Day work, for physical (quantity) contingencies, and for price contingencies (upward price adjustment) where applicable.

These Notes for Preparing Specifications are intended only as information for the Employer or the person drafting the Bidding documents. They should not be included in the final documents.

Section 6:- Preamble of Bill of Quantities

Notes on the Bill of Quantities for Unit Rate Contracts

General

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract
3. For any item for which measurement is based on records made before or during construction the records shall be prepared and agreed between the Engineer and the Contractor. Should the Contractor carry out such work without the prior agreement of the Engineer, the Engineer may request the Contractor to carry out investigations to confirm the extent of the work and the quantity of work certified for payment shall be solely at the Engineer's discretion. The cost of any such investigation shall be borne by the Contractor.
4. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
5. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
7. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
8. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with the Conditions of Contract.
9. The method of measurement of completed work for payment shall be in accordance with [Insert the name of a standard reference guide, or specification to be used].
10. Arithmetic errors will be corrected by the Employer as follows:
    (a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.
    (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
    (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic errors, in which case the amount in figures shall prevail subject to (a) and (b) above.

General

Work shall not be executed on a daywork basis except by written order of the Engineer. Bidders shall enter basic rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

Daywork Labor

(i) In calculating payments due to the Contractor for the execution of daywork, the hours for labor will be reckoned from the time of arrival of the labor at the job site to execute the particular item of daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Only the time of classes of labor directly doing work ordered by the Engineer and for which they are competent to perform will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.

(ii) The Contractor shall be entitled to payment in respect of the total time that labor is employed on daywork, calculated at the basis rates entered by him in the Schedule of Daywork Rates: 1. Labor. The rates for labor shall be deemed to cover all costs to the Contractor including (but not limited to) the amount of wages paid to such labor, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labor for social benefits in accordance with law of Nepal, as well as Contractor's profit, overheads, superintendence, liabilities and insurance and allowance to labor, timekeeping and clerical and office work, the use of consumable stores water, lighting and power; the use and repair of stagings, scaffolding workshops and stores portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing. The rates shall be stated in the local currency, and paid in Nepalese Rupees.

Daywork Materials

The Contractor shall be entitled to payment in respect of materials used for daywork (except for materials for which the cost is included in the percentage addition to labor costs as detailed heretofore), at the rates entered by him in the Schedule of Daywork Rates: 2. Materials and shall be deemed to include overhead charges and profit as follows;

(a) the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site. The rates shall be stated in local currency but payment will be made in the following currency proportions:

(i) foreign: percent *[The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used]*

(ii) local: percent *[To be stated by bidder]*.

(b) the cost of hauling materials for use on work ordered to be carried out as daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labor and Constructional Plant in this Schedule.

Daywork Contractor's Equipment

(i) The Contractor shall be entitled to payments in respect of Contractor's Equipment already on Site and employed on daywork at the basic rental rates entered by him in the Schedule of Daywork Rates: 3. Contractor's Equipment. The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumable, and all overhead profit and administrative costs related to the use of such equipment. The cost of drivers,

operators and assistants will be paid for separately as described under the section on Daywork Labor.

(ii) In calculating the payment due to the Contractor's Equipment employed on daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the traveling time from the part of the Site where the Construction Plant was located when ordered by the Engineer to be employed on daywork and the time for return journey thereto shall be included for payment.

a. The basic rental rates for Contractor's Equipment employed on daywork shall be stated in local currency but payments to the Contractor will be made in currency proportions as follows:

i. foreign: percent *[To be stated by bidder. The bidder shall state the percentage in a common foreign currency equivalent required for payment and the exchange rates and official sources used]*

ii. Local: percent *[To be stated by bidder]*.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the PCC should state the manner in which they will be used, and under whose authority (usually the Project Manager's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Employer to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Bid Data Sheet, General Conditions, Conditions of Particular Application, Standard Specification, Special Provisions to the Standard Specifications, Appendices to Special Provisions and the Drawings.

2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor

and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.

3. For any item for which measurement is based on records made before or during construction the records shall be prepared and agreed between the Engineer and the Contractor. Should the Contractor carry out such work without the prior agreement of the Engineer, the Engineer may request the Contractor to carry out investigations to confirm the extent of the work and the quantity of work certified for payment shall be solely at the Engineer's discretion. The cost of any such investigation shall be borne by the Contractor.

Bill of Quantities

Nepal Electricity Authority

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

Price Schedule 1: Supply and Delivery of Plant and Equipment Foreign Origin

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		CIP-Nepal Border (Excluding Taxes & Duties) F/C(USD/INR)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1	**Supply of Towers including bolt and nuts, hangers, U-bolts complete**					
1.1	**Tower Type DA**					
a	Stub	132	No.			
b	Basic Body	33	No.			
c	DA -4.5M Leg Extension.	4	No.			
d	DA -3M Leg Extension.	12	No.			
e	DA -1.5M Leg Extension.	4	No.			
f	DA +/-0M Leg Extension.	48	No.			
g	DA +1.5M Leg Extension.	4	No.			
h	DA +3M Leg Extension.	12	No.			
i	DA +4.5M Leg Extension.	4	No.			
j	DA +6M Leg Extension.	12	No.			
k	DA+7.5M Leg Extension.	4	No.			
l	DA+9 M Leg Extension.	24	No.			
1.2	**Tower Type DB**					
a	Stub	280	No.			
b	Basic Body	70	No.			
c	DB -4.5M Leg Extension.	4	No.			
d	DB -3M Leg Extension.	20	No.			
e	DB -1.5M Leg Extension.	4	No.			
f	DB +/-0M Leg Extension.	76	No.			
g	DB +1.5M Leg Extension.	4	No.			
h	DB +3M Leg Extension.	40	No.			
i	DB +4.5M Leg Extension.	4	No.			
j	DB +6M Leg Extension.	44	No.			
k	DB+7.5M Leg Extension.	4	No.			
l	DB+9 M Leg Extension.	76	No.			
1.3	**Tower Type DC**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DC -4.5M Leg Extension.	1	No.			
d	DC -3M Leg Extension.	4	No.			
e	DC -1.5M Leg Extension.	1	No.			
f	DC +/-0M Leg Extension.	22	No.			
g	DC +1.5M Leg Extension.	1	No.			
h	DC +3M Leg Extension.	4	No.			
i	DC +4.5M Leg Extension.	1	No.			
j	DC +6M Leg Extension.	17	No.			
k	DC+7.5M Leg Extension.	1	No.			
l	DC+9 M Leg Extension.	4	No.			
1.4	**Tower Type DD/DDES**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DD/DDES -4.5M Leg Extension.	1	No.			
d	DD/DDES -3M Leg Extension.	4	No.			
e	DD/DDES -1.5M Leg Extension.	1	No.			
f	DD/DDES +/-0M Leg Extension.	24	No.			
g	DD/DDES +1.5M Leg Extension.	1	No.			
h	DD/DDES +3M Leg Extension.	8	No.			
i	DD/DDES +4.5M Leg Extension.	1	No.			
j	DD/DDES +6M Leg Extension.	8	No.			
k	DD/DDES+7.5M Leg Extension.	1	No.			
l	DD/DDES+9 M Leg Extension.	4	No.			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		CIP-Nepal Border (Excluding Taxes & Duties) F/C(USD/INR)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1.5	**Tower Type DF**					
a	Stub	4	No.			
b	Basic Body	1	No.			
c	DF -4.5M Leg Extension.	1	No.			
d	DF -3M Leg Extension.	1	No.			
e	DF -1.5M Leg Extension.	1	No.			
f	DF +/-0M Leg Extension.	1	No.			
g	DF +1.5M Leg Extension.	1	No.			
h	DF +3M Leg Extension.	1	No.			
i	DF +4.5M Leg Extension.	1	No.			
j	DF +6M Leg Extension.	1	No.			
k	DF+7.5M Leg Extension.	1	No.			
l	DF+9 M Leg Extension.	1	No.			
2	**Supply of Tower Accessories & Earthing**					
2.1	**Tower Accessories**					
a	Danger Plate	132	No.			
b	Number Plate	132	No.			
c	Anti Climbing Device	132	Sets			
d	Phase Plate (set of 3)	132	Sets			
e	Circuit Plate (set of 2)	132	Sets			
f	Bird Guards	30	No.			
2.2	**Supply of Tower Earthing Material**					
a	Pipe Type	528	No.			
b	Counterpoise Type					
	i) Counterpoise Type - 25 m	60.00	No.			
	ii) Counterpoise Type - 50 m	45.00	No.			
	iii) Counterpoise Type - 100 m	36.00	No.			
3	**Supply of Line Materials**					
3.1	**Conductor and Groundwire**					
a	ACSR BEAR Conductor including armour-rod, mid-span joints, repair sleeves, etc. (single wire).	290	km			
b	Steel ground wire with optical fiber (24-fiber) including intermediate splice boxes and necessary terminal splice boxes.	48.30	km			
3.2	**132 kV Insulator string & Hardware fittings**					
a	Single suspension Insulator Strings complete with all accessories.	90	Set			
b	Double suspension Insulator Strings complete with all accessories.	108	Set			
c	Single tension Insulator Strings complete with all accessories.	240	Set			
d	Double tension Insulator Strings complete with all accessories.	354	Set			
e	Jumper set with pilot insulators & suitable counter weight complete with all accessories.	31	Set			
3.3	**Preformed fittings for OPGW**					
a	OPGW suspension set complete with all acessories.	33	set			
b	OPGW tension set (complete with all acessories on both sides making a set)	99	set			
3.4	**Vibration Dampers**					
a	Stockbridge Vibration damper for BEAR Conductor with preformed armour rods	2652	set			
b	Stockbridge Vibration damper for OPGW overhead ground wire with preformed armour rods	442	set			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		CIP-Nepal Border (Excluding Taxes & Duties) F/C(USD/INR)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
4	**SPARE PARTS**					
4.1	**Galvanized steel tower with required extension including Stubs**					
a	Tower type DA+9	1	nos.			
b	Tower type DB+9	1	nos.			
c	Tower type DC+9	1	nos.			
d	Tower type DD/DDES+9	1	nos.			
4.2	**Insulator strings with Hardware fittings and Preformed fittings for OPGW groundwire attachment assembles**					
a	Single suspension insulator string with armour rod for "BEAR"	10	sets			
b	Double suspension insulator string with armour rod for "BEAR"	10	sets			
c	Single tension insulator string for "BEAR"	10	sets			
d	Double tension insulator string for "BEAR"	10	sets			
e	OPGW suspension assembly for one tower	10	sets			
f	OPGW tension set (complete with all acessories on both sides making a set)	10	sets			
g	Structure mount splicing box complete with acessories for OPGW	6	sets			
4.3	**Conductor and accessories**					
a	Mid span compression sleeves for ACSR "BEAR" conductor	15	nos.			
b	Repair sleeve for ACSR "BEAR" conductor	10	nos.			
c	Vibration Damper for ACSR "BEAR"	40	nos.			
d	Porcelain insulator 70 kN capacity	100	pcs			
e	Porcelain insulator 120 kN capacity	100	pcs			
4.4	**Overhead OPGW and accessories**					
a	Mid span compression sleeve for OPGW	20	nos.			
b	Repair sleeve for OPGW	15	nos.			
c	Optical fiber ground wire	2	km			
d	Optical approach cable	1	km			
e	Vibration Damper for OPGW	10	nos.			
5	**TOOLS AND EQUIPMENT**					
5.1	Flat wrench for bolts	5	nos.			
5.2	Pipe wrench for common bolts	5	nos.			
5.3	Come along clamp for BEAR	6	nos.			
5.4	Come along clamp for OPGW	6	nos.			
5.5	Torque Wrench	6	nos.			
5.6	Safety belt	10	sets			
5.7	Portable Hydraulically operated Crimping tools with 2 sets of dies each for Conductor "BEAR", "DOG", "PANTHER", "WOLF", "DUCK" & OPGW	1	sets			
5.8	Safety helmet	10	sets			
5.9	Double sheeve pulley block 5 MT capacity complete with all accessories	2	sets			
5.10	Four sheeve pulley block 10 MT capacity complete with all accessories	2	sets			
5.11	Sagging Winch 10 MT capacity hand operated	2	sets			
5.12	Earth discharge rod	6	set			
5.13	132 kV Line Tester	1	set			
5.14	Earth resistance tester, battery operated with measuring range 0-1000 ohms minimum, complete with accessories	1	set			
5.15	Earth Resistivity Tester	1	Set			
5.16	Steel ropes (Pilot wire) 35 sq. mm	1000	m			
5.17	Rubber covered rollers,pullies(2,3 keys)	3	sets			
5.18	Line operator's leather gloves	5	pairs			
5.19	Insulation tester (10000 V) suitable for outdoor line testing purpose	1	No.			
	Grand Total of Schedule 1:					

Nepal Electricity Authority

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

Price Schedule 2: Supply and Delivery of Plant and Equipment from within the employer's country

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1	**Supply of Towers including bolt and nuts, hangers, U-bolts complete**					
1.1	**Tower Type DA**					
a	Stub	132	No.			
b	Basic Body	33	No.			
c	DA -4.5M Leg Extension.	4	No.			
d	DA -3M Leg Extension.	12	No.			
e	DA -1.5M Leg Extension.	4	No.			
f	DA +/-0M Leg Extension.	48	No.			
g	DA +1.5M Leg Extension.	4	No.			
h	DA +3M Leg Extension.	12	No.			
i	DA +4.5M Leg Extension.	4	No.			
j	DA +6M Leg Extension.	12	No.			
k	DA+7.5M Leg Extension.	4	No.			
l	DA+9 M Leg Extension.	24	No.			
1.2	**Tower Type DB**					
a	Stub	280	No.			
b	Basic Body	70	No.			
c	DB -4.5M Leg Extension.	4	No.			
d	DB -3M Leg Extension.	20	No.			
e	DB -1.5M Leg Extension.	4	No.			
f	DB +/-0M Leg Extension.	76	No.			
g	DB +1.5M Leg Extension.	4	No.			
h	DB +3M Leg Extension.	40	No.			
i	DB +4.5M Leg Extension.	4	No.			
j	DB +6M Leg Extension.	44	No.			
k	DB+7.5M Leg Extension.	4	No.			
l	DB+9 M Leg Extension.	76	No.			
1.3	**Tower Type DC**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DC -4.5M Leg Extension.	1	No.			
d	DC -3M Leg Extension.	4	No.			
e	DC -1.5M Leg Extension.	1	No.			
f	DC +/-0M Leg Extension.	22	No.			
g	DC +1.5M Leg Extension.	1	No.			
h	DC +3M Leg Extension.	4	No.			
i	DC +4.5M Leg Extension.	1	No.			
j	DC +6M Leg Extension.	17	No.			
k	DC+7.5M Leg Extension.	1	No.			
l	DC+9 M Leg Extension.	4	No.			
1.4	**Tower Type DD/DDES**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DD/DDES -4.5M Leg Extension.	1	No.			
d	DD/DDES -3M Leg Extension.	4	No.			
e	DD/DDES -1.5M Leg Extension.	1	No.			
f	DD/DDES +/-0M Leg Extension.	24	No.			
g	DD/DDES +1.5M Leg Extension.	1	No.			
h	DD/DDES +3M Leg Extension.	8	No.			
i	DD/DDES +4.5M Leg Extension.	1	No.			
j	DD/DDES +6M Leg Extension.	8	No.			
k	DD/DDES+7.5M Leg Extension.	1	No.			
l	DD/DDES+9 M Leg Extension.	4	No.			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1.5	**Tower Type DF**					
a	Stub	4	No.			
b	Basic Body	1	No.			
c	DF -4.5M Leg Extension.	1	No.			
d	DF -3M Leg Extension.	1	No.			
e	DF -1.5M Leg Extension.	1	No.			
f	DF +/-0M Leg Extension.	1	No.			
g	DF +1.5M Leg Extension.	1	No.			
h	DF +3M Leg Extension.	1	No.			
i	DF +4.5M Leg Extension.	1	No.			
j	DF +6M Leg Extension.	1	No.			
k	DF+7.5M Leg Extension.	1	No.			
l	DF+9 M Leg Extension.	1	No.			
2	**Supply of Tower Accessories & Earthing**					
2.1	**Tower Accessories**					
a	Danger Plate	132	No.			
b	Number Plate	132	No.			
c	Anti Climbing Device	132	Sets			
d	Phase Plate (set of 3)	132	Sets			
e	Circuit Plate (set of 2)	132	Sets			
f	Bird Guards	30	No.			
2.2	**Supply of Tower Earthing Material**					
a	Pipe Type	528	No.			
b	Counterpoise Type					
	i) Counterpoise Type - 25 m	60.00	No.			
	ii) Counterpoise Type - 50 m	45.00	No.			
	iii) Counterpoise Type - 100 m	36.00	No.			
3	**Supply of Line Materials**					
3.1	**Conductor and Groundwire**					
a	ACSR BEAR Conductor including armour-rod, mid-span joints, repair sleeves, etc. (single wire).	290	km			
b	Steel ground wire with optical fiber (24-fiber) including intermediate splice boxes and necessary terminal splice boxes.	48.30	km			
3.2	**132 kV Insulator string & Hardware fittings**					
a	Single suspension Insulator Strings complete with all accessories.	90	Set			
b	Double suspension Insulator Strings complete with all accessories.	108	Set			
c	Single tension Insulator Strings complete with all accessories.	240	Set			
d	Double tension Insulator Strings complete with all accessories.	354	Set			
e	Jumper set with pilot insulators & suitable counter weight complete with all accessories.	31	Set			
3.3	**Preformed fittings for OPGW**					
a	OPGW suspension set complete with all acessories.	33	set			
b	OPGW tension set (complete with all acessories on both sides making a set)	99	set			
3.4	**Vibration Dampers**					
a	Stockbridge Vibration damper for BEAR Conductor with preformed armour rods	2652	set			
b	Stockbridge Vibration damper for OPGW overhead ground wire with preformed armour rods	442	set			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
4	**SPARE PARTS**					
4.1	**Galvanized steel tower with required extension including Stubs**					
a	Tower type DA+9	1	nos.			
b	Tower type DB+9	1	nos.			
c	Tower type DC+9	1	nos.			
d	Tower type DD/DDES+9	1	nos.			
4.2	**Insulator strings with Hardware fittings and Preformed fittings for OPGW groundwire attachment assembles**					
a	Single suspension insulator string with armour rod for "BEAR"	10	sets			
b	Double suspension insulator string with armour rod for "BEAR"	10	sets			
c	Single tension insulator string for "BEAR"	10	sets			
d	Double tension insulator string for "BEAR"	10	sets			
e	OPGW suspension assembly for one tower	10	sets			
f	OPGW tension set (complete with all acessories on both sides making a set)	10	sets			
g	Structure mount splicing box complete with acessories for OPGW	6	sets			
4.3	**Conductor and accessories**					
a	Mid span compression sleeves for ACSR "BEAR" conductor	15	nos.			
b	Repair sleeve for ACSR "BEAR" conductor	10	nos.			
c	Vibration Damper for ACSR "BEAR"	40	nos.			
d	Porcelain insulator 70 kN capacity	100	pcs			
e	Porcelain insulator 120 kN capacity	100	pcs			
4.4	**Overhead OPGW and accessories**					
a	Mid span compression sleeve for OPGW	20	nos.			
b	Repair sleeve for OPGW	15	nos.			
c	Optical fiber ground wire	2	km			
d	Optical approach cable	1	km			
e	Vibration Damper for OPGW	10	nos.			
5	**TOOLS AND EQUIPMENT**					
5.1	Flat wrench for bolts	5	nos.			
5.2	Pipe wrench for common bolts	5	nos.			
5.3	Come along clamp for BEAR	6	nos.			
5.4	Come along clamp for OPGW	6	nos.			
5.5	Torque Wrench	6	nos.			
5.6	Safety belt	10	sets			
5.7	Portable Hydraulically operated Crimping tools with 2 sets of dies each for Conductor "BEAR", "DOG", "PANTHER", "WOLF", "DUCK" & OPGW	1	sets			
5.8	Safety helmet	10	sets			
5.9	Double sheeve pulley block 5 MT capacity complete with all accessories	2	sets			
5.10	Four sheeve pulley block 10 MT capacity complete with all accessories	2	sets			
5.11	Sagging Winch 10 MT capacity hand operated	2	sets			
5.12	Earth discharge rod	6	set			
5.13	132 kV Line Tester	1	set			
5.14	Earth resistance tester, battery operated with measuring range 0-1000 ohms minimum, complete with accessories	1	set			
5.15	Earth Resistivity Tester	1	Set			
5.16	Steel ropes (Pilot wire) 35 sq. mm	1000	m			
5.17	Rubber covered rollers,pullies(2,3 keys)	3	sets			
5.18	Line operator's leather gloves	5	pairs			
5.19	Insulation tester (10000 V) suitable for outdoor line testing purpose	1	No.			
	Grand Total of Schedule 2:					

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

Price Schedule 3: Insurance, Clearing, Forwarding and Transport up to Site (including port clearance etc.)

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1	**Supply of Towers including bolt and nuts, hangers, U-bolts complete**					
1.1	**Tower Type DA**					
a	Stub	132	No.			
b	Basic Body	33	No.			
c	DA -4.5M Leg Extension.	4	No.			
d	DA -3M Leg Extension.	12	No.			
e	DA -1.5M Leg Extension.	4	No.			
f	DA +/-0M Leg Extension.	48	No.			
g	DA +1.5M Leg Extension.	4	No.			
h	DA +3M Leg Extension.	12	No.			
i	DA +4.5M Leg Extension.	4	No.			
j	DA +6M Leg Extension.	12	No.			
k	DA+7.5M Leg Extension.	4	No.			
l	DA+9 M Leg Extension.	24	No.			
1.2	**Tower Type DB**					
a	Stub	280	No.			
b	Basic Body	70	No.			
c	DB -4.5M Leg Extension.	4	No.			
d	DB -3M Leg Extension.	20	No.			
e	DB -1.5M Leg Extension.	4	No.			
f	DB +/-0M Leg Extension.	76	No.			
g	DB +1.5M Leg Extension.	4	No.			
h	DB +3M Leg Extension.	40	No.			
i	DB +4.5M Leg Extension.	4	No.			
j	DB +6M Leg Extension.	44	No.			
k	DB+7.5M Leg Extension.	4	No.			
l	DB+9 M Leg Extension.	76	No.			
1.3	**Tower Type DC**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DC -4.5M Leg Extension.	1	No.			
d	DC -3M Leg Extension.	4	No.			
e	DC -1.5M Leg Extension.	1	No.			
f	DC +/-0M Leg Extension.	22	No.			
g	DC +1.5M Leg Extension.	1	No.			
h	DC +3M Leg Extension.	4	No.			
i	DC +4.5M Leg Extension.	1	No.			
j	DC +6M Leg Extension.	17	No.			
k	DC+7.5M Leg Extension.	1	No.			
l	DC+9 M Leg Extension.	4	No.			
1.4	**Tower Type DD/DDES**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DD/DDES -4.5M Leg Extension.	1	No.			
d	DD/DDES -3M Leg Extension.	4	No.			
e	DD/DDES -1.5M Leg Extension.	1	No.			
f	DD/DDES +/-0M Leg Extension.	24	No.			
g	DD/DDES +1.5M Leg Extension.	1	No.			
h	DD/DDES +3M Leg Extension.	8	No.			
i	DD/DDES +4.5M Leg Extension.	1	No.			
j	DD/DDES +6M Leg Extension.	8	No.			
k	DD/DDES+7.5M Leg Extension.	1	No.			
l	DD/DDES+9 M Leg Extension.	4	No.			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1.5	**Tower Type DF**					
a	Stub	4	No.			
b	Basic Body	1	No.			
c	DF -4.5M Leg Extension.	1	No.			
d	DF -3M Leg Extension.	1	No.			
e	DF -1.5M Leg Extension.	1	No.			
f	DF +/-0M Leg Extension.	1	No.			
g	DF +1.5M Leg Extension.	1	No.			
h	DF +3M Leg Extension.	1	No.			
i	DF +4.5M Leg Extension.	1	No.			
j	DF +6M Leg Extension.	1	No.			
k	DF+7.5M Leg Extension.	1	No.			
l	DF+9 M Leg Extension.	1	No.			
2	**Supply of Tower Accessories & Earthing**					
2.1	**Tower Accessories**					
a	Danger Plate	132	No.			
b	Number Plate	132	No.			
c	Anti Climbing Device	132	Sets			
d	Phase Plate (set of 3)	132	Sets			
e	Circuit Plate (set of 2)	132	Sets			
f	Bird Guards	30	No.			
2.2	**Supply of Tower Earthing Material**					
a	Pipe Type	528	No.			
b	Counterpoise Type					
	i) Counterpoise Type - 25 m	60.00	No.			
	ii) Counterpoise Type - 50 m	45.00	No.			
	iii) Counterpoise Type - 100 m	36.00	No.			
3	**Supply of Line Materials**					
3.1	**Conductor and Groundwire**					
a	ACSR BEAR Conductor including armour-rod, mid-span joints, repair sleeves, etc. (single wire).	290	km			
b	Steel ground wire with optical fiber (24-fiber) including intermediate splice boxes and necessary terminal splice boxes.	48.30	km			
3.2	**132 kV Insulator string & Hardware fittings**					
a	Single suspension Insulator Strings complete with all accessories.	90	Set			
b	Double suspension Insulator Strings complete with all accessories.	108	Set			
c	Single tension Insulator Strings complete with all accessories.	240	Set			
d	Double tension Insulator Strings complete with all accessories.	354	Set			
e	Jumper set with pilot insulators & suitable counter weight complete with all accessories.	31	Set			
3.3	**Preformed fittings for OPGW**					
a	OPGW suspension set complete with all acessories.	33	set			
b	OPGW tension set (complete with all acessories on both sides making a set)	99	set			
3.4	**Vibration Dampers**					
a	Stockbridge Vibration damper for BEAR Conductor with preformed armour rods	2652	set			
b	Stockbridge Vibration damper for OPGW overhead ground wire with preformed armour rods	442	set			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
4	**SPARE PARTS**					
4.1	**Galvanized steel tower with required extension including Stubs**					
a	Tower type DA+9	1	nos.			
b	Tower type DB+9	1	nos.			
c	Tower type DC+9	1	nos.			
d	Tower type DD/DDES+9	1	nos.			
4.2	**Insulator strings with Hardware fittings and Preformed fittings for OPGW groundwire attachment assembles**					
a	Single suspension insulator string with armour rod for "BEAR"	10	sets			
b	Double suspension insulator string with armour rod for "BEAR"	10	sets			
c	Single tension insulator string for "BEAR"	10	sets			
d	Double tension insulator string for "BEAR"	10	sets			
e	OPGW suspension assembly for one tower	10	sets			
f	OPGW tension set (complete with all acessories on both sides making a set)	10	sets			
g	Structure mount splicing box complete with acessories for OPGW	6	sets			
4.3	**Conductor and accessories**					
a	Mid span compression sleeves for ACSR "BEAR" conductor	15	nos.			
b	Repair sleeve for ACSR "BEAR" conductor	10	nos.			
c	Vibration Damper for ACSR "BEAR"	40	nos.			
d	Porcelain insulator 70 kN capacity	100	pcs			
e	Porcelain insulator 120 kN capacity	100	pcs			
4.4	**Overhead OPGW and accessories**					
a	Mid span compression sleeve for OPGW	20	nos.			
b	Repair sleeve for OPGW	15	nos.			
c	Optical fiber ground wire	2	km			
d	Optical approach cable	1	km			
e	Vibration Damper for OPGW	10	nos.			
5	**TOOLS AND EQUIPMENT**					
5.1	Flat wrench for bolts	5	nos.			
5.2	Pipe wrench for common bolts	5	nos.			
5.3	Come along clamp for BEAR	6	nos.			
5.4	Come along clamp for OPGW	6	nos.			
5.5	Torque Wrench	6	nos.			
5.6	Safety belt	10	sets			
5.7	Portable Hydraulically operated Crimping tools with 2 sets of dies each for Conductor "BEAR", "DOG", "PANTHER", "WOLF", "DUCK" & OPGW	1	sets			
5.8	Safety helmet	10	sets			
5.9	Double sheeve pulley block 5 MT capacity complete with all accessories	2	sets			
5.10	Four sheeve pulley block 10 MT capacity complete with all accessories	2	sets			
5.11	Sagging Winch 10 MT capacity hand operated	2	sets			
5.12	Earth discharge rod	6	set			
5.13	132 kV Line Tester	1	set			
5.14	Earth resistance tester, battery operated with measuring range 0-1000 ohms minimum, complete with accessories	1	set			
5.15	Earth Resistivity Tester	1	Set			
5.16	Steel ropes (Pilot wire) 35 sq. mm	1000	m			
5.17	Rubber covered rollers,pullies(2,3 keys)	3	sets			
5.18	Line operator's leather gloves	5	pairs			
5.19	Insulation tester (10000 V) suitable for outdoor line testing purpose	1	No.			
	Grand Total of Schedule 3:					

Nepal Electricity Authority

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

Price Schedule 4. Installation Services, Charges and Civil Works

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1	**Survey**					
a	Check survey and review of profile including L/R profile in undulation, tower spotting, staking of tower locations and survey on tower location where required.	48.30	Km.			
2	**Soil Investigation**					
a	All kinds of Soils except fissured rock & hard rock	55	Loc.			
b	Fissured Rock	19	Loc.			
c	Hard Rock	6	Loc.			
d	River Crossing	8	Loc.			
e	Furnishing Bore Log Data	44	Loc.			
f	Measurement of ground resistance	132	Loc.			
3	**Benching**					
a	Normal Soil	13800	Cum.			
b	Fissured Rock	7350	Cum.			
c	Hard Rock	962.5	Cum.			
4	**Erection of towers & its body extensions (Complete) including bolts & nuts, tack welding and supply and application of enamel & zinc rich paint**					
4.1	**Tower Type DA**					
a	Stub	132	No.			
b	Basic Body	33	No.			
c	DA -4.5M Leg Extension.	4	No.			
d	DA -3M Leg Extension.	12	No.			
e	DA -1.5M Leg Extension.	4	No.			
f	DA +/-0M Leg Extension.	48	No.			
g	DA +1.5M Leg Extension.	4	No.			
h	DA +3M Leg Extension.	12	No.			
i	DA +4.5M Leg Extension.	4	No.			
j	DA +6M Leg Extension.	12	No.			
k	DA+7.5M Leg Extension.	4	No.			
l	DA+9 M Leg Extension.	24	No.			
4.2	**Tower Type DB**					
a	Stub	280	No.			
b	Basic Body	70	No.			
c	DB -4.5M Leg Extension.	4	No.			
d	DB -3M Leg Extension.	20	No.			
e	DB -1.5M Leg Extension.	4	No.			
f	DB +/-0M Leg Extension.	76	No.			
g	DB +1.5M Leg Extension.	4	No.			
h	DB +3M Leg Extension.	40	No.			
i	DB +4.5M Leg Extension.	4	No.			
j	DB +6M Leg Extension.	44	No.			
k	DB+7.5M Leg Extension.	4	No.			
l	DB+9 M Leg Extension.	76	No.			
4.3	**Tower Type DC**					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DC -4.5M Leg Extension.	1	No.			
d	DC -3M Leg Extension.	4	No.			
e	DC -1.5M Leg Extension.	1	No.			
f	DC +/-0M Leg Extension.	22	No.			
g	DC +1.5M Leg Extension.	1	No.			
h	DC +3M Leg Extension.	4	No.			
i	DC +4.5M Leg Extension.	1	No.			
j	DC +6M Leg Extension.	17	No.			
k	DC+7.5M Leg Extension.	1	No.			
l	DC+9 M Leg Extension.	4	No.			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
4.4	Tower Type DD/DDES					
a	Stub	56	No.			
b	Basic Body	14	No.			
c	DD/DDES -4.5M Leg Extension.	1	No.			
d	DD/DDES -3M Leg Extension.	4	No.			
e	DD/DDES -1.5M Leg Extension.	1	No.			
f	DD/DDES +/-0M Leg Extension.	24	No.			
g	DD/DDES +1.5M Leg Extension.	1	No.			
h	DD/DDES +3M Leg Extension.	8	No.			
i	DD/DDES +4.5M Leg Extension.	1	No.			
j	DD/DDES +6M Leg Extension.	8	No.			
k	DD/DDES+7.5M Leg Extension.	1	No.			
l	DD/DDES+9 M Leg Extension.	4	No.			
4.5	**Tower Type DF**					
a	Stub	4	No.			
b	Basic Body	1	No.			
c	DF -4.5M Leg Extension.	1	No.			
d	DF -3M Leg Extension.	1	No.			
e	DF -1.5M Leg Extension.	1	No.			
f	DF +/-0M Leg Extension.	1	No.			
g	DF +1.5M Leg Extension.	1	No.			
h	DF +3M Leg Extension.	1	No.			
i	DF +4.5M Leg Extension.	1	No.			
j	DF +6M Leg Extension.	1	No.			
k	DF+7.5M Leg Extension.	1	No.			
l	DF+9 M Leg Extension.	1	No.			
5	**Work associated with installation of tower foundations**					
5.1	**Tower Type DA (for all type of body and leg extensions)**					
a	Dry Soil	4.00	No.			
b	Wet Soil	4.00	No.			
c	Fully Submerged Soil	4.00	No.			
d	Dry Fissured Rock	4.00	No.			
e	Wet Fissured Rock	4.00	No.			
f	Submerged Fissured Rock	5.00	No.			
g	Hard Rock	5.00	No.			
h	Sandy Soil	3.00	No.			
5.2	**Tower Type DB (for all type of body and leg extensions)**					
a	Dry Soil	9.00	No.			
b	Wet Soil	8.00	No.			
c	Fully Submerged Soil	8.00	No.			
d	Dry Fissured Rock	13.00	No.			
e	Wet Fissured Rock	7.00	No.			
f	Submerged Fissured Rock	8.00	No.			
g	Hard Rock	11.00	No.			
h	Sandy Soil	6.00	No.			
5.3	**Tower Type DC (for all type of body and leg extensions)**					
a	Dry Soil	3.00	No.			
b	Wet Soil	3.00	No.			
c	Fully Submerged Soil	3.00	No.			
d	Dry Fissured Rock	3.00	No.			
e	Hard Rock	2.00	No.			
5.4	**Tower Type DD/DDES (for all type of body and leg extensions)**					
a	Dry Soil	2.00	No.			
b	Wet Soil	1.00	No.			
c	Fully Submerged Soil	2.00	No.			
d	Dry Fissured Rock	1.00	No.			
e	Wet Fissured Rock	2.00	No.			
f	Submerged Fissured Rock	2.00	No.			
g	Hard Rock	2.00	No.			
h	Sandy Soil	2.00	No.			
5.5	**Tower Type DF (for all type of body and leg extensions)**					
a	Dry Soil	1.00	No.			
b	Wet Soil	1.00	No.			
c	Fully Submerged Soil	1.00	No.			
d	Dry Fissured Rock	1.00	No.			
e	Sandy Soil	1.00	No.			

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
6	**Installation of Tower Accessories & Earthing**					
6.1	**Tower Accessories**					
a	Danger Plate	132	No.			
b	Number Plate	132	No.			
c	Anti Climbing Device	132	Sets			
d	Phase Plate (set of 3)	132	Sets			
e	Circuit Plate (set of 2)	132	Sets			
f	Bird Guards	30	Sets			
6.2	**Installation of Tower Earthing Material**					
a	Pipe Type	528	No.			
b	Counterpoise Type					
	i) Counterpoise Type - 25 m	60	No.			
	ii) Counterpoise Type - 50 m	45	No.			
	iii) Counterpoise Type - 100 m	36	No.			
7	**Installation of Line Materials**					
7.1	**Stringing of Conductor and Groundwire**					
a	ACSR BEAR Conductor including armour-rod, mid-span joints, repair sleeves, etc. (single wire).	290	km			
b	Steel ground wire with optical fiber (24-fiber) including intermediate splice boxes and necessary terminal splice boxes, etc.	48	km			
7.2	**Installation of 132 kV Insulator Strings**					
a	Single suspension Insulator Strings complete with all accessories.	90	Set			
b	Double suspension Insulator Strings complete with all acessories.	108	Set			
c	Single tension Insulator Strings complete with all acessories.	240	Set			
d	Double tension Insulator Strings complete with all acessories.	354	Set			
e	Jumper set with pilot insulators & suitable counter weight complete with all accessories.	31	Set			
7.3	**Installation of Preformed fittings for OPGW**					
a	OPGW suspension set complete with all acessories.	33	set			
b	OPGW tension set (complete with all acessories on both sides)	99	set			
7.4	**Installation of Vibration Dampers**					
a	Vibration Dampers for ACSR "BEAR"	2652	set			
b	Vibration Dampers for OPGW	442	set			
8	**Protection of tower footing**					
a	Random rubble stone masonry including excavation (1:4 cement : sand)	3245.00	CUM			
b	Stone bound in galvanizing wire netting including excavation	5400.00	CUM			
c	Back filling and leveling of volumes enclosed by revetment	6600.00	CUM			
d	M15 Conc. Nominal Mix 1:2:4 for foundation lean concrete top seal cover	528.00	CUM			
e	Reinforcement Bars	37.00	tons			
	Grand Total of Schedule 4:					

Nepal Electricity Authority

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

Price Schedule 5. Price Schedule for Proto Type Testing of Tower

Project :	BPTSG TRANSMISSION LINE PROJECT	Estimated		L/C(NRs)		Remarks
Item No.	Description	Quantity	Unit	Unit Rate	Amount	
1	**Proto Type Testing of towers**					
a	Tower Type DA with extension +9m	1	no.			
b	Tower Type DB with extension +9m	1	no.			
c	Tower Type DC with extension +9m	1	no.			
d	Tower Type DD/DDES with extension +9m	1	no.			
e	Tower Type DF with extension +9m	1	no.			
	Grand Total of Schedule 5:					

Nepal Electricity Authority

Transmission Directorate

Grid Development Department

BURTIBANG PAUDI-AMARAI TAMGHAS SANDHIKHARKA GORUSHING 132 kV TRANSMISSION LINE PROJECT

SANDHIKHARKA-BURTIBANG 132 kV TRANSMISSION LINE SECTION

Grand Summary

S. No.	DESCRIPTION	Foreign Currency (excluding Tax & VAT)	Local Currency (excluding Tax & VAT)	Remarks
1	Total Schedule No. 1: Plant and Equipments (Including mandatory Spare parts) Supplied from Abroad			
2	Total Schedule No. 2: Plant and Equipments (Including mandatory Spare parts) Supplied from within the Employer's country			
3	Total Schedule No. 3: Insurance, Clearing, Forwarding and Transport up to Site (including port clearance etc.)			
4	Total Schedule No. 4: Installation Services, Charges and Civil Works			
5	Total Schedule No. 5: Price Schedule for Proto Type Testing of Tower			
	Grand Total (Excluding Custom Duties & VAT)			