

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad

Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit Price		Total CIP Border Price	Remarks
					Currency#	CIP-Nepal Border	Total	
1	2	3	4	5	6	7	8 = 5 x 7	9
1	Part: I \$5 Supply of Towers For 220KV T/L,including bolt and nuts, hangers, U-bolts complete							
1.1	Tower Type DA							
a	Basic Tower		Nos.	1				
b	DA -4.5M Extension.		Nos.					
c	DA -3M Extension.		Nos.					
d	DA -1.5M Extension.		Nos.					
e	DA +/-0M Extension.		Nos.	4				
f	DA +1.5M Extension.		Nos.					
g	DA +3M Extension.		Nos.					
h	DA +4.5M Extension.		Nos.					
i	DA +6M Extension.		Nos.					
j	DA+7.5M Extension.		Nos.					
k	DA+9 M Extension.		Nos.					
1.2	Tower Type DB							
a	Basic Tower		Nos.	3				
b	DB -4.5M Extension.		Nos.					
c	DB -3M Extension.		Nos.					
d	DB -1.5M Extension.		Nos.					
e	DB +/-0M Extension.		Nos.	12				
f	DB +1.5M Extension.		Nos.					
g	DB +3M Extension.		Nos.					
h	DB +4.5M Extension.		Nos.					
i	DB +6M Extension.		Nos.					
j	DB+7.5M Extension.		Nos.					
k	DB+9 M Extension.		Nos.					
1.3	Tower Type DC							
a	Basic Tower		Nos.					
b	DC -4.5M Extension.		Nos.					
c	DC -3M Extension.		Nos.					
d	DC -1.5M Extension.		Nos.					
e	DC +/-0M Extension.		Nos.					
f	DC +1.5M Extension.		Nos.					
g	DC +3M Extension.		Nos.					
h	DC +4.5M Extension.		Nos.					
i	DC +6M Extension.		Nos.					
j	DC+7.5M Extension.		Nos.					
k	DC+9 M Extension.		Nos.					
1.4	Tower Type DD/DDE							
a	Basic Tower		Nos.	2				
b	DD -4.5M Extension.		Nos.					
c	DD -3M Extension.		Nos.					
d	DD -1.5M Extension.		Nos.					
e	DD +/-0M Extension.		Nos.	8				
f	DD +1.5M Extension.		Nos.					
g	DD +3M Extension.		Nos.					
h	DD +4.5M Extension.		Nos.					
i	DD +6M Extension.		Nos.					
j	DD+7.5M Extension.		Nos.					

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad

Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit Price		Total CIP Border Price	Remarks
					Currency#	CIP-Nepal Border	Total	
1	2	3	4	5	6	7	8 = 5 x 7	9
k	DD+9 M Extension.		Nos.					
1	Part II: \$\$\$\$ Supply of Missing Tower Parts For 220KV T/L ,including bolt and nuts, hangers, U-bolts complete							
1.1	Tower Type DA							
a	Basic Tower including extensions		MT	63.15				
1.2	Tower Type DB							
a	Basic Tower including extensions		MT	90				
1.3	Tower Type DC							
a	Basic Tower including extensions		MT	14.56				
1.4	Tower Type DD/DDE							
a	Basic Tower including extensions		MT	155.53				
1	Part III: \$\$\$\$ Supply of Towers For 220 KV, 4CCT, T/L ,including bolt and nuts, hangers, U-bolts complete							
1.1	Tower Type 4DD							
a	Basic Tower		Nos.	9				
b	4DD +/-0M Extension.		Nos.	6				
c	4DD +6M Extension.		Nos.	1				
d	4DD +14M Extension		Nos.	1				
e	4DD +22M Extension		Nos.	2				
f	4DD -3M leg Extension only		Nos.	2				
g	4DD +0M LEG Extension only		Nos.	2				
h	with +0M extension) direct connected		Nos.	3				
i	4DD +3M Leg Extension (included with +0M extension) direct connected to Basic Tower		Nos.	5				
j	+3M Leg Extension		Nos.	6				
k	+ 6M Leg Extension		Nos.	2				
l	+ 9M leg Extension		Nos.	8				
m	Common Plan view A3-A3 for extensions		Nos.	5				
Sub-total=								
2	Supply of Tower Accessories & Earthing							
2.1	Tower Accessories							
a	Danger Plate		Nos.	226				
b	Number Plate		Nos.	226				
c	Anti Climbing Device		Sets	226				
d	Phase Plate (set of 3)		Sets	452				
e	Circuit Plate (set of 1)		Sets	452				
f	Bird Guards		Sets	60				
2.2	Tower Earthing							
a	Pipe Type		Nos.	273				

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad

Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit Price		Total CIP Border Price	Remarks
					Currency#	CIP-Nepal Border	Total	
1	2	3	4	5	6	7	8 = 5 x 7	9
b	Counterpoise Type							
	i) Counterpoise Type - 120 m		Nos.	95				
	ii) Counterpoise Type - 180 m		Nos.	82				
	iii) Counterpoise Type - 280 m		Nos.	40				
	Sub-total=							
3	Supply of Line Materials							
3.1	Conductor							
a	ACSR BISON Conductor		Km	398.30				
b	AACSR BISON Conductor		Km	146.00				
3.2	Insulator							
	<i>Disc Insulators</i>							
a	70 kN Disc Insulator		Nos.	6179				
b	120 kN Disc Insulator		Nos.	30302				
c	160 kN Disc Insulator		Nos.	5269				
3.3	Earthwire							
a	GS Earthwire 7/3.35 mm size		Km	8				
b	Steel Ground Wire with Optical fibre(OPGW) and Accessories		Km					
3.4	Part I:^{SS} Hardware Fittings							
a	Single Suspension 'I' Insulator String (suitable for 1x16, 70 KN Disc Insulators)		Sets	189				
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)		Sets	115				
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)		Sets					
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)		Sets	884				
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)		Sets	146				
3.4	Part II:^{SSS} Hardware Fittings							
a	Single Suspension 'I' Insulator String (suitable for 1x16, 70 KN Disc Insulators)							
i	clevis clevis		Nos	122				
ii	HH Ball Eye		Nos					
iii	Arching horn		Nos					
iv	Socket clevis		Nos					
v	Yoke Plate (triangle)		Nos					
vi	Clevis Eye		Nos					
vii	AG suspension clamp		Nos					
viii	CC ring and CC Bracket		Nos					
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)							
i	clevis clevis		Nos	88				
ii	HH Ball Eye		Nos	65				
iii	Arching horn		Nos	36				

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad

Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit Price		Total CIP Border Price	Remarks
					Currency#	CIP-Nepal Border	Total	
1	2	3	4	5	6	7	8 = 5 x 7	9
	iv Socket clevis		Nos	50				
	v Yoke Plate (triangle)		Nos	38				
	vi Clevis Eye		Nos	128				
	vii AG suspension clamp		Nos	4				
	viii CC ring and CC Bracket		Nos					
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)		Nos					
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)							
	i Anchor Shackle		Nos	64				
	ii Chain Link		Nos	32				
	iii Yoke Plate (triangle)		Nos	8				
	iv Ball clevis		Nos	51				
	v Arching horn tower side		Nos	7				
	vi socket clevis		Nos	10				
	vii Yoke Plate (rectangle)		Nos	15				
	viii Clevis Eye		Nos	30				
	ix sag adjusting plate		Nos	6				
	x CC ring		Nos					
	xi CC Bracket (95cm)		Nos	6				
	xii steel Deadend assembly		Nos	36				
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)							
	i Anchor Shackle and Chain Link		Nos	18				
	ii Yoke Plate (triangle)		Nos	9				
	iii Ball clevis		Nos	6				
	iv Arching horn tower side		Nos	9				
	v socket clevis		Nos	25				
	vi Yoke Plate (rectangle)		Nos	9				
	vii Clevis Eye		Nos	36				
	viii sag adjusting plate		Nos	19				
	ix CC ring		Nos					
	x CC Bracket		Nos	9				
	xi Aluminium Deadend assembly		Nos					
3.5	Conductor and Earthwire Accessories							
a	Flexible Copper Bond for 7/3.35 mm GS Earthwire		Nos.	236				
b	Vibration Damper for ACSR/AACSR BISON Conductor		Nos.	2326				
c	Vibration Damper							
c.1	Vibration Damper for 7/3.35 mm GS Earthwire		Nos.	10				
c.2	Vibration Damper for OPGW		Nos.	10				
d	Bundle spacer for line, suitable for ACSR/AACSR BISON Conductor		Nos.	4210				
e	Mid Span Compression Joint for ACSR BISON Conductor		Nos.	157				
f	Mid Span Compression Joint for 7/3.55 mm GS Earthwire		Nos.	5				

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad

Sl. No.	Item Description	Country of origin	Unit	Qty.	Unit Price		Total CIP Border Price	Remarks
					Currency#	CIP-Nepal Border	Total	
1	2	3	4	5	6	7	8 = 5 x 7	9
g	Repair Sleeve for ACSR BISON Conductor		Nos.	89				
h	Rigid Spacer for jumper for ACSR BISON Conductor		Nos.	1819				
i	Earthwire Tension Clamp		Nos.	5				
j	Earthwire Suspension Clamp		Nos.	10				
k	OPGW Suspension Clamp		Nos.	5				
l	OPGW Tension Clamp		Nos.	10				
Sub-total =								
Total (to Schedule No.5. Grand Summary)								

Note :

- # Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.
- \$\$ Part I quantities are those which are clearly quantifiable as per the scope of the work and are given under this heading above.
- \$\$\$ Part II quantities are those which are provided for information only and need to be verified by prospective bidders prior to preparing the bids and entering into contract.
- \$\$\$\$ Part III quantities are those which are clearly quantifiable as per the scope of the work. However, the approved design (both structural and foundation) should be reviewed on their own cost from the successful bidder before testing and supply.

Date : _____

Place : _____

Signature: _____

Printed Name: _____

Designation: _____

Common Seal: _____

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT**

Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's

Country

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs.	EXW Total Price NRs.	Remarks
1	2	3	4	5	6 = 4 x 5	7
	Part: I \$\$ Supply of Towers For 220KV T/L,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type DA					
a	Basic Tower	Nos.	1			
b	DA -4.5M Extension.	Nos.				
c	DA -3M Extension.	Nos.				
d	DA -1.5M Extension.	Nos.				
e	DA +/-0M Extension.	Nos.	4			
f	DA +1.5M Extension.	Nos.				
g	DA +3M Extension.	Nos.				
h	DA +4.5M Extension.	Nos.				
i	DA +6M Extension.	Nos.				
j	DA+7.5M Extension.	Nos.				
k	DA+9 M Extension.	Nos.				
1.2	Tower Type DB					
a	Basic Tower	Nos.	3			
b	DB -4.5M Extension.	Nos.				
c	DB -3M Extension.	Nos.				
d	DB -1.5M Extension.	Nos.				
e	DB +/-0M Extension.	Nos.	12			
f	DB +1.5M Extension.	Nos.				
g	DB +3M Extension.	Nos.				
h	DB +4.5M Extension.	Nos.				
i	DB +6M Extension.	Nos.				
j	DB+7.5M Extension.	Nos.				
k	DB+9 M Extension.	Nos.				
1.3	Tower Type DC					
a	Basic Tower	Nos.				
b	DC -4.5M Extension.	Nos.				
c	DC -3M Extension.	Nos.				
d	DC -1.5M Extension.	Nos.				
e	DC +/-0M Extension.	Nos.				
f	DC +1.5M Extension.	Nos.				
g	DC +3M Extension.	Nos.				
h	DC +4.5M Extension.	Nos.				
i	DC +6M Extension.	Nos.				
j	DC+7.5M Extension.	Nos.				
k	DC+9 M Extension.	Nos.				
1.4	Tower Type DD/DDE					
a	Basic Tower	Nos.	2			
b	DD -4.5M Extension.	Nos.				
c	DD -3M Extension.	Nos.				
d	DD -1.5M Extension.	Nos.				
e	DD +/-0M Extension.	Nos.	8			
f	DD +1.5M Extension.	Nos.				
g	DD +3M Extension.	Nos.				
h	DD +4.5M Extension.	Nos.				
i	DD +6M Extension.	Nos.				
j	DD+7.5M Extension.	Nos.				
k	DD+9 M Extension.	Nos.				

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT**

**Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's
Country**

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs.	EXW Total Price NRs.	Remarks
1	2	3	4	5	6 = 4 x 5	7
1	Part: II \$\$\$ Supply of Missing Tower Parts For 220KV T/L ,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type DA					
a	Basic Tower including extensions	MT	63.15			
1.2	Tower Type DB					
a	Basic Tower including extensions	MT	90			
1.3	Tower Type DC					
a	Basic Tower including extensions	MT	14.56			
1.4	Tower Type DD/DDE					
a	Basic Tower including extensions	MT	155.53			
1	Part III: \$\$\$\$ Supply of Towers For 220 KV, 4CCT, T/L ,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type 4DD					
a	Basic Tower	Nos.	9			
b	4DD +/-0M Extension.	Nos.	6			
c	4DD +6M Extension.	Nos.	1			
d	4DD +14M Extension	Nos.	1			
e	4DD +22M Extension	Nos.	2			
f	4DD -3M leg Extension only	Nos.	2			
g	4DD +0M LEG Extension only	Nos.	2			
h	extension) direct connected to Basic Tower	Nos.	3			
i	4DD +3M Leg Extension (included with +0M extension) direct connected to Basic Tower	Nos.	5			
j	+3M Leg Extension	Nos.	6			
k	+ 6M Leg Extension	Nos.	2			
l	+ 9M leg Extension	Nos.	8			
m	Common Plan view A3-A3 for extensions	Nos.	5			
	Sub-total=					
2	Supply of Tower Accessories & Earthing					
2.1	Tower Accessories					
a	Danger Plate	Nos.	226			
b	Number Plate	Nos.	226			
c	Anti Climbing Device	Sets	226			
d	Phase Plate (set of 3)	Sets	452			
e	Circuit Plate (set of 1)	Sets	452			
f	Bird Guards	Sets	60			
2.2	Tower Earthing					
a	Pipe Type	Nos.	273			
b	Counterpoise Type					
	i) Counterpoise Type - 120 m	Nos.	95			
	ii) Counterpoise Type - 180 m	Nos.	82			
	iii) Counterpoise Type - 280 m	Nos.	40			
	Sub-total=					
3	Supply of Line Materials					
3.1	Conductor					

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT**

**Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's
Country**

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs.	EXW Total Price NRs.	Remarks
1	2	3	4	5	6 = 4 x 5	7
a	ACSR BISON Conductor	Km	398.30			
b	AACSR BISON Conductor	Km	146.00			
3.2	Insulator					
	<i>Disc Insulators</i>					
a	70 kN Disc Insulator	Nos.	6179			
b	120 kN Disc Insulator	Nos.	30302			
c	160 kN Disc Insulator	Nos.	5269			
3.3	Earthwire					
a	GS Earthwire 7/3.35 mm size	Km	8			
b	Steel Ground Wire with Optical fibre(OPGW) and Accessories	Km				
3.4	Part I:^{\$\$} Fittings	Hardware				
a	Single Suspension 'I' Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets	189			
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets	115			
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets				
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)	Sets	884			
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)	Sets	146			
3.4	Part II:^{\$\$\$} Fittings	Hardware				
a	Single Suspension 'I' Insulator String (suitable for 1x16, 70 KN Disc Insulators)					
i	clevis clevis	Nos	122			
ii	HH Ball Eye	Nos				
iii	Arching horn	Nos				
iv	Socket clevis	Nos				
v	Yoke Plate (triangle)	Nos				
vi	Clevis Eye	Nos				
vii	AG suspension clamp	Nos				
viii	CC ring and CC Bracket	Nos				
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)					
i	clevis clevis	Nos	88			
ii	HH Ball Eye	Nos	65			
iii	Arching horn	Nos	36			
iv	Socket clevis	Nos	50			
v	Yoke Plate (triangle)	Nos	38			
vi	Clevis Eye	Nos	128			
vii	AG suspension clamp	Nos	4			
viii	CC ring and CC Bracket	Nos				
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Nos				
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)					
i	Anchor Shackle	Nos	64			

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT**

**Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's
Country**

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs.	EXW Total Price NRs.	Remarks
1	2	3	4	5	6 = 4 x 5	7
	ii Chain Link	Nos	32			
	iii Yoke Plate (triangle)	Nos	8			
	iv Ball clevis	Nos	51			
	v Arching horn tower side	Nos	7			
	vi socket clevis	Nos	10			
	vii Yoke Plate (rectangle)	Nos	15			
	viii Clevis Eye	Nos	30			
	ix sag adjusting plate	Nos	6			
	x CC ring	Nos				
	xi CC Bracket (95cm)	Nos	6			
	xii steel Deadend assembly	Nos	36			
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)					
	i Anchor Shackle and Chain Link	Nos	18			
	ii Yoke Plate (triangle)	Nos	9			
	iii Ball clevis	Nos	6			
	iv Arching horn tower side	Nos	9			
	v socket clevis	Nos	25			
	vi Yoke Plate (rectangle)	Nos	9			
	vii Clevis Eye	Nos	36			
	viii sag adjusting plate	Nos	19			
	ix CC ring	Nos				
	x CC Bracket	Nos	9			
	xi Aluminium Deadend assembly	Nos				
3.5	Conductor and Earthwire Accessories					
a	Flexible Copper Bond for 7/3.35 mm GS Earthwire	Nos.	236			
b	Vibration Damper for ACSR/AACSR BISON Conductor	Nos.	2326			
c	Vibration Damper					
c.1	Vibration Damper for 7/3.35 mm GS Earthwire	Nos.	10			
c.2	Vibration Damper for OPGW	Nos.	10			
d	Bundle spacer for line, suitable for ACSR/AACSR BISON Conductor	Nos.	4210			
e	Mid Span Compression Joint for ACSR BISON Conductor	Nos.	157			
f	Mid Span Compression Joint for 7/3.55 mm GS Earthwire	Nos.	5			
g	Repair Sleeve for ACSR BISON Conductor	Nos.	89			
h	Rigid Spacer for jumper for ACSR BISON Conductor	Nos.	1819			
i	Earthwire Tension Clamp	Nos.	5			
j	Earthwire Suspension Clamp	Nos.	10			
k	OPGW Suspension Clamp	Nos.	5			
l	OPGW Tension Clamp	Nos.	10			
	Sub-total =					
	Total (to Schedule No.5. Grand Summary)					

Note :

- # Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT**

**Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's
Country**

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs.	EXW Total Price NRs.	Remarks
1	2	3	4	5	6 = 4 x 5	7

\$\$ Part I quantities are those which are clearly quantifiable as per the scope of the work and are given under this heading above.

\$\$\$ Part II quantities are those which are provided for information only and need to be verified by prospective bidders prior to preparing the bids and entering into contract.

\$\$\$\$ Part III quantities are those which are clearly quantifiable as per the scope of the work. However, the approved design (both structural and foundation) should be reviewed on their own cost from the successful bidder before testing and supply.

Signature: _____

Printed Name: _____

Date :

Designation: _____

Place :

Common Seal: _____

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-
BHARATPUR 220 KV TRANSMISSION LINE PROJECT

Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No. 3. Design Services

The price of design review of 4DD towers is deemed to have been covered in the prices of other schedules. So the contractor

Item	Description	Qty.	Unit Price [#]		Total Price [#]	
			Foreign Currency Portion	Local Currency Portion	Foreign Currency Portion	Local Currency Portion
(1)	(2)	(3)	(4)	(5)	(6)=(4)X(3)	(7)=(3)X(5)
	Not Applicable					

Date :

Place :

Signature: _____

Printed Name: _____

Designation: _____

Common Seal: _____

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-
BHARATPUR 220 KV TRANSMISSION LINE PROJECT
Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	
(1)	(2)	(3)	(4)	(6)	(8)=(4)X(6)	(9)
	Part: I \$\$ Supply of Towers For 220KV T/L,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type DA					
a	Basic Tower	Nos.	1			
b	DA -4.5M Extension.	Nos.				
c	DA -3M Extension.	Nos.				
d	DA -1.5M Extension.	Nos.				
e	DA +/-0M Extension.	Nos.	4			
f	DA +1.5M Extension.	Nos.				
g	DA +3M Extension.	Nos.				
h	DA +4.5M Extension.	Nos.				
i	DA +6M Extension.	Nos.				
j	DA+7.5M Extension.	Nos.				
k	DA+9 M Extension.	Nos.				
1.2	Tower Type DB					
a	Basic Tower	Nos.	3			
b	DB -4.5M Extension.	Nos.				
c	DB -3M Extension.	Nos.				
d	DB -1.5M Extension.	Nos.				
e	DB +/-0M Extension.	Nos.	12			
f	DB +1.5M Extension.	Nos.				
g	DB +3M Extension.	Nos.				
h	DB +4.5M Extension.	Nos.				
i	DB +6M Extension.	Nos.				
j	DB+7.5M Extension.	Nos.				
k	DB+9 M Extension.	Nos.				
1.3	Tower Type DC					
a	Basic Tower	Nos.				
b	DC -4.5M Extension.	Nos.				
c	DC -3M Extension.	Nos.				
d	DC -1.5M Extension.	Nos.				
e	DC +/-0M Extension.	Nos.				
f	DC +1.5M Extension.	Nos.				
g	DC +3M Extension.	Nos.				
h	DC +4.5M Extension.	Nos.				
i	DC +6M Extension.	Nos.				
j	DC+7.5M Extension.	Nos.				
k	DC+9 M Extension.	Nos.				
1.4	Tower Type DD/DDE					
a	Basic Tower	Nos.	2			
b	DD -4.5M Extension.	Nos.				
c	DD -3M Extension.	Nos.				

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV TRANSMISSION LINE PROJECT

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	
d	DD -1.5M Extension.	Nos.				
e	DD +/-0M Extension.	Nos.	8			
f	DD +1.5M Extension.	Nos.				
g	DD +3M Extension.	Nos.				
h	DD +4.5M Extension.	Nos.				
i	DD +6M Extension.	Nos.				
j	DD+7.5M Extension.	Nos.				
k	DD+9 M Extension.	Nos.				
1	Part: II^{\$\$\$} Supply of Missing Tower Parts For 220KV T/L ,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type DA					
a	Basic Tower including extensions	MT	63.15			
1.2	Tower Type DB					
a	Basic Tower including extensions	MT	90			
1.3	Tower Type DC					
a	Basic Tower including extensions	MT	14.56			
1.4	Tower Type DD/DDE					
a	Basic Tower including extensions	MT	155.53			
1	Part III:^{\$\$\$\$} Supply of Towers For 220 KV, 4CCT, T/L ,including bolt and nuts, hangers, U-bolts complete					
1.1	Tower Type 4DD					
a	Basic Tower	Nos.	9			
b	4DD +/-0M Extension.	Nos.	6			
c	4DD +6M Extension.	Nos.	1			
d	4DD +14M Extension	Nos.	1			
e	4DD +22M Extension	Nos.	2			
f	4DD -3M leg Extension only	Nos.	2			
g	4DD +0M LEG Extension only	Nos.	2			
h	+0M extension) direct connected to Basic	Nos.	3			
i	4DD +3M Leg Extension (included with +0M extension) direct connected to Basic Tower	Nos.	5			
j	+3M Leg Extension	Nos.	6			
k	+ 6M Leg Extension	Nos.	2			
l	+ 9M leg Extension	Nos.	8			
m	Common Plan view A3-A3 for extensions	Nos.	5			

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-
BHARATPUR 220 KV TRANSMISSION LINE PROJECT

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	
Sub-total=						
2	Supply of Tower Accessories & Earthing					
2.1	Tower Accessories					
a	Danger Plate	Nos.	226			
b	Number Plate	Nos.	226			
c	Anti Climbing Device	Sets	226			
d	Phase Plate (set of 3)	Sets	452			
e	Circuit Plate (set of 1)	Sets	452			
f	Bird Guards	Sets	60			
2.2	Tower Earthing					
a	Pipe Type	Nos.	273			
b	Counterpoise Type					
	i) Counterpoise Type - 120 m	Nos.	95			
	ii) Counterpoise Type - 180 m	Nos.	82			
	iii) Counterpoise Type - 280 m	Nos.	40			
Sub-total=						
3	Supply of Line Materials					
3.1	Conductor					
a	ACSR BISON Conductor	Km	398.30			
b	AACSR BISON Conductor	Km	146.00			
3.2	Insulator					
	<i>Disc Insulators</i>					
a	70 kN Disc Insulator	Nos.	6179			
b	120 kN Disc Insulator	Nos.	30302			
c	160 kN Disc Insulator	Nos.	5269			
3.3	Earthwire					
a	GS Earthwire 7/3.35 mm size	Km	8			
b	Steel Ground Wire with Optical fibre(OPGW) and Accessories	Km				
3.4	Part I:^{\$\$} Hardware Fittings					
a	Single Suspension 'I' Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets	189			
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets	115			
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Sets				
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)	Sets	884			
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)	Sets	146			

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-
BHARATPUR 220 KV TRANSMISSION LINE PROJECT**

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	
3.4	Part II:^{\$\$\$} Hardware Fittings					
a	Single Suspension '1' Insulator String (suitable for 1x16, 70 KN Disc Insulators)					
	i clevis clevis	Nos	122			
	ii HH Ball Eye	Nos				
	iii Arching horn	Nos				
	iv Socket clevis	Nos				
	v Yoke Plate (triangle)	Nos				
	vi Clevis Eye	Nos				
	vii AG suspension clamp	Nos				
	viii CC ring and CC Bracket	Nos				
b	Single Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)					
	i clevis clevis	Nos	88			
	ii HH Ball Eye	Nos	65			
	iii Arching horn	Nos	36			
	iv Socket clevis	Nos	50			
	v Yoke Plate (triangle)	Nos	38			
	vi Clevis Eye	Nos	128			
	vii AG suspension clamp	Nos	4			
	viii CC ring and CC Bracket	Nos				
c	Double Suspension Pilot Insulator String (suitable for 1x16, 70 KN Disc Insulators)	Nos				
d	Double Tension Insulator String (suitable for 1x17, 120 KN Disc Insulators)					
	i Anchor Shackle	Nos	64			
	ii Chain Link	Nos	32			
	iii Yoke Plate (triangle)	Nos	8			
	iv Ball clevis	Nos	51			
	v Arching horn tower side	Nos	7			
	vi socket clevis	Nos	10			
	vii Yoke Plate (rectangle)	Nos	15			
	viii Clevis Eye	Nos	30			
	ix sag adjusting plate	Nos	6			
	x CC ring	Nos				
	xi CC Bracket (95cm)	Nos	6			
	xii steel Deadend assembly	Nos	36			
e	Double Tension Insulator String (suitable for 1x17, 160 KN Disc Insulators)					
	i Anchor Shackle and Chain Link	Nos	18			

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV TRANSMISSION LINE PROJECT

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	
ii	Yoke Plate (triangle)	Nos	9			
iii	Ball clevis	Nos	6			
iv	Arching horn tower side	Nos	9			
v	socket clevis	Nos	25			
vi	Yoke Plate (rectangle)	Nos	9			
vii	Clevis Eye	Nos	36			
viii	sag adjusting plate	Nos	19			
ix	CC ring	Nos				
x	CC Bracket	Nos	9			
xi	Aluminium Deadend assembly	Nos				
3.5	Conductor and Earthwire Accessories					
a	Flexible Copper Bond for 7/3.35 mm GS Earthwire	Nos.	236			
b	Vibration Damper for ACSR/AACSR BISON Conductor	Nos.	2326			
c	Vibration Damper					
c.1	Vibration Damper for 7/3.35 mm GS Earthwire	Nos.	10			
c.2	Vibration Damper for OPGW	Nos.	10			
d	Bundle spacer for line, suitable for ACSR/AACSR BISON Conductor	Nos.	4210			
e	Mid Span Compression Joint for ACSR BISON Conductor	Nos.	157			
f	Mid Span Compression Joint for 7/3.55 mm GS Earthwire	Nos.	5			
g	Repair Sleeve for ACSR BISON Conductor	Nos.	89			
h	Rigid Spacer for jumper for ACSR BISON Conductor	Nos.	1819			
i	Earthwire Tension Clamp	Nos.	5			
j	Earthwire Suspension Clamp	Nos.	10			
k	OPGW Suspension Clamp	Nos.	5			
l	OPGW Tension Clamp	Nos.	10			
	Sub-total =					
Total (to Schedule No.5. Grand Summary)						

Note :

- # Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.
- \$\$ Part I quantities are those which are clearly quantifiable as per the scope of the work and are given under this heading above.
- \$\$\$ Part II quantities are those which are provided for information only and need to be verified by prospective bidders prior to preparing the bids and entering into contract.
- \$\$\$\$ Part III quantities are those which are clearly quantifiable as per the scope of the work. However, the approved design (both structural and foundation) should be reviewed on their own cost from the successful bidder before testing and supply.

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-
BHARATPUR 220 KV TRANSMISSION LINE PROJECT

ICB No:

Schedule No.4: Installation and Other Services

Part A: Local Transportation, Insurance and Other Incidental Services

Sl. No.	Item Description	Unit	Qty.	Unit Price [#]	Total Price [#]	Remarks
				Local Currency Portion	Local Currency Portion (NPR)	

Signature: _____

Date :

Printed Name: _____

Designation: _____

Place :

Common Seal: _____

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No.4: Installation and Other Services

Part B: Installation Charges

Sl. No.	Item Description	Unit	Qty.	Unit Price		Total Price Foreign Currency Portion	Total Price Local Currency Portion	Remarks
				Foreign Currency	Local Currency Portion			
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)X(5)	(8)=(4)X(6)	(9)
1	Survey							
1.1	Check survey and preparation of Tower Schedule for 4DD Towers	KM	2					
			0					
1.2	Protection Wall Survey and Design	Nos	80					
1.3	Benching							
1.3.1	Normal and Boulder Mixed Soil	Cum.	4000					
1.3.2	Fissured Rock	Cum.	1000					
1.3.3	Hard Rock	Cum.	200					
	Sub Total							
2	Part I: Work associated with installation of tower foundations							
2.1	Tower Type DA (for all type of body and leg extensions)							
a	Dry Soil	No						
b	Wet Soil	No	5					
c	Fully Submerged Soil	No	0					
d	Dry Fissured Rock	No	0					
e	Wet Fissured Rock	No	0					
f	Sandy Soil	No	0					
g	Hard Rock	No	0					
2.2	Tower Type DB (for all type of body and leg extensions)							
a	Dry Soil	No.	3					
b	Wet Soil	No	13					
c	Fully Submerged Soil	No	0					
d	Dry Fissured Rock	No	0					
e	Wet Fissured Rock	No	0					
d	Sandy Soil	No	0					
e	Hard Rock	No	0					
2.3	Tower Type DC (for all type of body and leg extensions)							
a	Dry Soil	No						
b	Wet Soil	No	3					
c	Fully Submerged Soil	No						
d	Dry Fissured Rock	No						
e	Wet Fissured Rock	No						
d	Sandy Soil	No						
e	Hard Rock	No						
2.4	Tower Type DD (for all type of body and leg extensions)							
a	Dry Soil	No	3					
b	Wet Soil	No	16					
c	Fully Submerged Soil	No	1					
d	Dry Fissured Rock	No						

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

e	Wet Fissured Rock	No						
d	Sandy Soil	No						
e	Hard Rock	No						
2.5	Tower Type 4DD (for all type of body and leg extensions)							
a	Dry Soil	No	3					
b	Wet Soil	No	1					
c	Fully Submerged Soil	No	2					
d	Dry Fissured Rock	No	1					
e	Wet Fissured Rock	No	2					
f	Sandy Soil	No						
g	Hard Rock	No						
	Sub Total							
2	Part II:\$\$\$ Work associated with dismantling and installation of existing damaged tower foundations as per instruction of Engineer							
2.1	All type of Tower Foundations	LS(No)	3					
	Sub Total							
3	Part I:\$ Erection of towers & its body extensions (Complete) including bolts & nuts, tack welding and supply and application of enamel & zinc rich paint							
3.1	Tower Type DA							
a	Basic Tower	No	19					
b	DA -4.5M Extension.	No	3					
c	DA -3M Extension.	No	9					
d	DA -1.5M Extension.	No	6					
e	DA +/-0M Extension.	No	35					
f	DA +1.5M Extension.	No	15					
g	DA +3M Extension.	No	6					
h	DA +4.5M Extension.	No	0					
i	DA +6M Extension.	No	2					
j	DA+7.5M Extension.	No	0					
k	DA+9 M Extension.	No	0					
3.2	Tower Type DB							
a	Basic Tower	No	36					
b	DB -4.5M Extension.	No	8					
c	DB -3M Extension.	No	14					
d	DB -1.5M Extension.	No	19					
e	DB +/-0M Extension.	No	44					
f	DB +1.5M Extension.	No	27					
g	DB +3M Extension.	No	11					
h	DB +4.5M Extension.	No	6					
i	DB +6M Extension.	No	6					
j	DB+7.5M Extension.	No	5					
k	DB+9 M Extension.	No	4					
3.3	Tower Type DC							
a	Basic Tower	No	7					
b	DC -4.5M Extension.	No	0					
c	DC -3M Extension.	No	6					
d	DC -1.5M Extension.	No	1					

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

e	DC +/-0M Extension.	No	7					
f	DC +1.5M Extension.	No	2					
g	DC +3M Extension.	No	5					
h	DC +4.5M Extension.	No	4					
i	DC +6M Extension.	No	1					
j	DC+7.5M Extension.	No	2					
k	DC+9 M Extension.	No	0					
3.4	Tower Type DD/DDE							
a	Basic Tower	No	36					
b	DD/DDE -4.5M Extension.	No	4					
c	DD/DDE -3M Extension.	No	10					
d	DD/DDE -1.5M Extension.	No	17					
e	DD/DDE +/-0M Extension.	No	56					
f	DD/DDE +1.5M Extension.	No	21					
g	DD/DDE +3M Extension.	No	21					
h	DD/DDE +4.5M Extension.	No	4					
i	DD/DDE +6M Extension.	No	4					
j	DM+7.5M Extension.	No	2					
k	DM+9 M Extension.	No	7					
3.5	Tower Type 4DD							
a	Basic Tower		9					
b	4DD +/-0M Extension.		6					
c	4DD +6M Extension.		1					
d	4DD +14M Extension		1					
e	4DD +22M Extension		2					
f	4DD -3M leg Extension only		2					
g	4DD +0M LEG Extension only		2					
h	4DD +1.5 M Leg Extension (included with +0M extension) direct connected to Basic Tower		3					
i	4DD +3M Leg Extension (included with +0M extension) direct connected to Basic Tower		5					
j	+3M Leg Extension		6					
k	+ 6M Leg Extension		2					
l	+ 9M leg Extension		8					
m	Common Plan view A3-A3 for extensions		5					
	Sub Total							
3	Part II:\$\$\$ Dismantling and Re-erection of towers & its body extensions (Complete) including bolts & nuts, tack welding, coping & backfilling of foundations and supply and application of enamel & zinc rich paint as per instruction of Engineer							
3.1	Tower Type DA	LS (Nos)	10					
3.2	Tower Type DB	LS (Nos)	10					
3.3	Tower Type DC	LS (Nos)	0					
3.4	Tower Type DD/DDE	LS (Nos)	5					
	Sub Total							

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

3	Part IV:* Rectification of Erected towers & its body extensions (Complete) including bolts & nuts, tack welding, coping & backfilling of foundations and supply and application of enamel & zinc rich paint as per instruction of Engineer							
3.1	Tower Type DA	LS (Nos)	32					
3.2	Tower Type DB	LS (Nos)	34					
3.3	Tower Type DC	LS (Nos)	6					
3.4	Tower Type DD/DDE	LS (Nos)	22					
Sub Total								
4	Installation of earthing of towers							
4.1	Pipe Type	Nos.	119					
4.2	Counterpoise Type							
a	Counterpoise Type -120m	Nos.	43					
b	Counterpoise Type -180m	Nos.	43					
c	Counterpoise Type -280m	Nos.	29					
Sub Total								
5	Installation of tower accessories							
5.1	Danger Plate	Nos.	226					
5.2	Number Plate	Nos.	226					
5.3	Phase Plate (Set of six)	Sets	226					
5.4	Circuit Plate (Set of two)	Sets	452					
5.5	Anti climbing device	Nos.	452					
5.6	Bird Guard	Nos.	60					
Sub Total								
6	Installation of Conductor							
6.1	Part I:§ Installation of insulator strings complete with arcing horns & necessary hardware, installing of bundle conductor including fixing of conductor accessories, installing & stringing of earthwire including fixing of earthwire accessories (Twin bundle Conductor) in Double Ckt Line including 2 km four ckt line.							
6.1.1	Normal Stretch							
a	Remaining and Second Circuit Stringing except Four Circuit Length	Ckt Km	134					
b	Four Circuit Length	Ckt Km	8					
6.1.2	Installation of Steel ground wire including all fittings & accessories	Km	76					
6.1.3	Installation Hardware set for Steel ground wire with optical fiber including all cable fittings & accessories	km	76					
6.2	Redrumming of Damaged Conductor Drums	Nos	166					
Sub Total								

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

6	Part II: \$\$\$ Re-installation of insulator strings complete with arcing horns & necessary hardware, reinstalling of bundle conductor including fixing of conductor accessories, reinstalling & restringing of earthwire including fixing of earthwire accessories (Twin bundle Conductor) in Double Ckt Line as per instruction of Engineer.	LS (Km)	10					
Sub Total								
7	Protection of tower footing							
7.1	Random rubble stone masonry including excavation (1:4 cement : sand)	CUM	4000					
7.2	Stone bound in galvanizing wire netting(Gabion Wall) including excavation	CUM	4000					
7.3	Back filling and leveling of volumes enclosed by revetment	CUM	5000					
7.4	M15 Conc. Nominal Mix 1:2:4 (including formwork) for foundation base & top seal cover	CUM	200					
7.5	Reinforcement Bars	M.ton	20					
Sub Total								
Total (to Schedule No.5. Grand Summary)								

Note :

- # Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.
- \$\$ Part I quantities are those which are clearly quantifiable as per the scope of the work and are given under this heading above.
- \$\$\$ Part II quantities are those which are provided for information only and need to be verified by prospective bidders prior to preparing the bids and entering into contract.
- * Part IV quantities are those which are provided for information only and need to be verified by prospective bidders prior to preparing the bids and entering into contract.

Date :

Place :

Signature:

Printed Name:

Designation:

Common Seal:

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT
Bill of Quantities**

Bidder's Name and Address:

ICB No:

Schedule No.4: Installation and Other Services

Part C: Type Test Charges for Type Tests to be conducted Abroad

Sl. No.	Description of Test	Unit	Qty	Test Charges			Remarks
				Currency(#)	Unit Charges	Total Amt	
1	2	3	6	7	8	11=8x6	12
1	Proto Type Testing of towers						
1.1	Tower Type 4DD with extensions -One number	No.	1				
2	Hardware Fittings						
2.1	Suspension String						
a	Magnetic power loss test for suspension assembly	No.	2				
b	Clamp slip strength vs. torque test for suspension assembly	No.	2				
c	Mechanical strength test	No.	2				
d	Ozone test on elastomer	No.	1				
2.2	Double Tension String						
2.2.1	For (1x120 kN and 1x160 kN insulator string)						
a	Electrical resistance test for dead end assembly	No.	1				
b	Slip strength test for dead end assembly	No.	1				
c	Mechanical strength test	No.	1				
3.1	Flexible Copper Bond						
a	Slip strength test	No.	1				
3.2	Vibration Damper for ACSR Bison Conductor						
a	Dynamic characteristic test	No.	1				
b	Vibration analysis test	No.	1				
c	Clamp slip test	No.	1				
d	Fatigue test	No.	1				
e	Magnetic power loss test	No.	1				
f	Damper efficiency test	No.	1				
g	Corona extinction voltage test (Dry)	No.	1				
h	Radio interference voltage test (Dry)	No.	1				
3.3	Vibration Damper for 7/3.35 mm GS Earthwire						
a	Dynamic characteristic test	No.	1				
b	Vibration analysis test	No.	1				
c	Clamp slip test	No.	1				
d	Fatigue test	No.	1				
e	Damper efficiency test	No.	1				
3.4	Bundle Spacer for ACSR Bison Conductor						
a	Clamp slip test	No.	1				
b	Vibration test	No.	1				
c	Tension compression test	No.	1				
d	Corona extinction voltage test (Dry)	No.	1				
e	Radio interference voltage test (Dry)	No.	1				
f	Ozone test on elastomer	No.	1				
3.5	Rigid Spacer for ACSR Bison Conductor						
a	Clamp slip test	No.	1				
b	Tension compression test	No.	1				
c	Corona extinction voltage test (Dry)	No.	1				
d	Radio interference voltage test (Dry)	No.	1				
3.6	Earthwire suspension clamp assembly						
a	Mechanical strength test	No.	1				
b	Clamp slip strength vs torque test for suspension assembly	No.	1				

**PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV
TRANSMISSION LINE PROJECT**

c	Electrical resistance test	No.	1				
3.7 Earthwire Tension Clamp Assembly							
a	Mechanical strength test	No.	1				
b	Slip strength test for dead end assembly	No.	1				
c	Electrical resistance test for dead end assembly	No.	1				
3.8 Mid Span Compression Joint for Conductors							
a	Slip strength test for dead end assembly	No.	1				
b	Electrical resistance test for dead end assembly	No.	1				
3.9 Mid Span Compression Joint for Earth wire							
a	Slip strength test for dead end assembly	No.	1				
b	Electrical resistance test for dead end assembly	No.	1				
4 ACSR BisonConductor							
4.1 UTS Test							
		No.	1				
4.2 DC Resistance Test							
		No.	1				
4.3 Corona & RIV Test							
		No.	1				
5 AACSR Bison Conductor							
5.1 UTS Test							
		No.	1				
5.2 DC Resistance Test							
		No.	1				
5.3 Corona & RIV Test							
		No.	1				
6 Insulator							
6.1 On Complete Insulator Strings:							
a	Voltage distribution test	No.	2				
b	Corona and RIV test under dry condition	No.	2				
c	Mechanical Strength test	No.	4				
d	Vibration test	No.	2				
e	Power-Arc Test	No.	2				
6.2 On Disc Insulator units:							
Disc Insulators-for each 70,120 and 160 kN							
a	Verification of dimensions	No.	4				
b	Thermal mechanical performance test	No.	3				
c	Power frequency voltage withstand and flashover test under	No.					
	(i) dry		3				
	(ii) wet condition						
d	Impulse voltage withstand and flashover test (dry)	No.	3				
e	Visible discharge test (dry)	No.	3				
f	RIV test (dry)	No.	3				
g	Residual strength test	No.	3				
h	Steep wave front test	No.	3				
i	Impact test	No.	3				
Sub-total =							
Total (to Schedule No.5. Grand Summary)							

Note :

- # Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.

Signature: _____

Date :

Printed Name: _____

Place :

Designation: _____

Common Seal: _____

PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR 220 KV TRANSMISSION LINE PROJECT

Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No.4: Installation and Other Services

Part D: Training Charges for training to be imparted abroad

Sl. No.	Description	Item for which training is to be imparted	Country where training is to be imparted	No. of Trainee	Training duration in Days	Test Charges		Total Charges	Remarks
						Currency(#)	Unit Charges		
1	2	3	4	5	6	7	8	9 =5x6x8	10
	NOT APPLICABLE								
	Sub-total =							0.00	
	Total (to Schedule No.5. Grand Summary)								

Note :

Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.

Signature: _____

Date :

Printed Name: _____

Place :

Designation: _____

Common Seal: _____

Hetauda-Bharatpur 220 KV Transmission Line Project
PROCUREMENT OF PLANT DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HETAUDA-BHARATPUR
220 KV TRANSMISSION LINE PROJECT
Bill of Quantities

Bidder's Name and Address:

ICB No:

Schedule No. 5. Grand Summary

Sl. No.	Description	Total Price Foreign(#)	Total Price Local(#)
(1)	(2)	(3)	(4)
1	Total Schedule No. 1. Plant and Equipment (including Mandatory Spares Parts) Supplied from Abroad		
2	Total Schedule No. 2. Plant and Equipment (including Mandatory Spares Parts) Supplied from Within Employer's Country		
3	Total Schedule No. 3. Design Services	Price to be included in the "Supply, Installation and Other Services" Schedules	
4	Schedule No.4: Installation and Other Services		
Part - A:	Local Transportation, Insurance and Other Incidental Services		
Part - B:	Installation Charges		
Part - C:	Type Test Charges for Type Tests to be conducted Abroad		
Part - D:	Training Charges for training to be imparted abroad		
	Total Schedule No.4. Installation and Other Services		
Grand Total excluding Custom Duties and VAT (to bid form)			

Note :

Specify currency in accordance with specifications in Bid Data Sheet under ITB Clause 18.1. Create and use as many columns for foreign currency requirement as there are foreign currencies.

Signature: _____

Date :

Printed Name: _____

Place :

Designation: _____

Common Seal: _____

