

**Nepal Electricity Authority**  
(A Government of Nepal Undertaking)  
**Transmission Directorate**



**NEPAL INDIA ELECTRICITY TRANSMISSION AND TRADE  
PROJECT**

**Bidding Document  
for  
Procurement of Plant Design, Supply and Installation of Power  
Transformer and Reactor for Hetauda & Inaruwa Substations**

**Single Stage – International Competitive  
Bidding Procedure**

**Volume III of III**

Issued on: .....

Issued to: .....

Invitation for Bids No.: NIETTP/G/ICB-5/TRANS

ICB No.: NIETTP/G/ICB-5/TRANS

Employer: Nepal Electricity Authority

Country: Nepal

**January, 2020**

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# Schedule of Rates and Prices



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Schedule No. 1 : Plant (including Mandatory Spare Parts) Supplied from abroad**

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
<b>I</b>	<b>220/132kV Hetauda Substation</b>						
<b>A</b>	<b>Power Transformer</b>						
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification		Nos.	2			
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)		Lot*	2			

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
c)	10MVA, 132/11 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and all fittings & accessories as specified/required for completion of the scope of works as per technical specification		Nos.	1			
d)	Insulating oil for 10MVA, 132/11 kV, 3-phase Power Transformer (* 1Lot = Oil for one 10MVA Power Transformer)		Lot*	1			
<b>SUB TOTAL - A</b>							
<b>B. Testing &amp; Maintenance Equipments</b>							
a)	Oil Storage Tank of 20KL		No.	1			
<b>SUB TOTAL - B</b>							
<b>C. Mandatory Spare List for Power Transformer</b>							
<b>C1. Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>							
a)	Bushing of each rating with metal parts & gaskets and lifting tools		Set	1			
b)	Cooler fan with Motor		No.	1			
c)	Buchholz Relay (Main Tank) complete with floats and contacts		Set	1			
d)	Local and Remote WTI & OTI with sensing device and contact (each)		Set	1			
e)	Magnetic oil level gauge		No.	1			

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)		Set	1			
g)	Remote Tap position Indicator		No.	1			
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement		KL	10			
	<b>SUB TOTAL - C1</b>						
<b>C2.</b>	<b>Mandatory Spare List for 10 MVA, 132/11kV Three Phase Power Transformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools		Set	1			
b)	Cooler fan with Motor		No.	1			
c)	Buchholz Relay (Main Tank) complete with floats and contacts		Set	1			
d)	Local and Remote WTI & OTI with sensing device and contact (each)		Set	1			
e)	Magnetic oil level gauge		No.	1			
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)		Set	1			
g)	Remote Tap position Indicator		No.	1			
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement		KL	5			
	<b>SUB TOTAL - C [C1 +C2]</b>						
	<b>GRAND TOTAL - A+B+C (Hetauda Substation)</b>						
<b>II</b>	<b>220/132/33kV Inaruwa Substation</b>						

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
<b>A</b>	<b>Power Transformer</b>						
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification		Nos.	2			
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)		Lot*	2			
c)	63MVA, 220/33 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification		Nos.	2			
d)	Insulating oil for 63MVA, 220/33 kV, 3-phase Power Transformer (* 1Lot = Oil for one 63MVA Power Transformer)		Lot*	2			
	<b>SUB TOTAL - A</b>						

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
<b>B.</b>	<b>Testing &amp; Maintenance Equipments</b>						
a)	Oil Storage Tank of 20KL		No.	1			
b)	10000 LPH Oil Filtration Unit		Set	1			
	<b>SUB TOTAL - B</b>						
<b>C.</b>	<b>Mandatory Spare List for Power Transformer &amp; Reactor</b>						
<b>C1.</b>	<b>Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools		Set	1			
b)	Cooler fan with Motor		No.	1			
c)	Buchholz Relay (Main Tank) complete with floats and contacts		Set	1			
d)	Local and Remote WTI & OTI with sensing device and contact (each)		Set	1			
e)	Magnetic oil level gauge		No.	1			
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)		Set	1			
g)	Remote Tap position Indicator		No.	1			
h)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement		KL	10			
	<b>SUB TOTAL - C1</b>						
<b>C2.</b>	<b>Mandatory Spare List for 63 MVA, 220/33kV Three Phase Power Transformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools		Set	1			



Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
b)	Cooler fan with Motor		No.	1			
c)	Buchholz Relay(Main Tank) complete with floats and contacts		Set	1			
d)	Local and Remote WTI & OTI with sensing device and contact (each)		Set	1			
e)	Magnetic oil level gauge		No.	1			
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)		Set	1			
g)	Remote Tap position Indicator		No.	1			
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement		KL	5			
<b>SUB TOTAL - C2</b>							
<b>C3.</b>	<b>Mandatory Spare List for Mandatory Spares for 25MVAR, 145 KV Three Phase Bus Reactor (Siemens Make)</b>						
a)	Buchholz relay complete with float and contacts		Set	1			
b)	Local WTI with sensing device and contacts		Set	1			
c)	Remote WTI with sensing device and contacts		Set	1			
d)	Oil temperature indicator (OTI) with contacts and sensing device		Set	1			
e)	145kV Bushing with metal parts and gaskets along with lifting tools		No	1			
f)	36kV Bushing with metal parts and gaskets along with lifting tools		No	1			

Sl. No.	Item Description	Country of Origin	Unit	Qty.	Unit Price		Total Price
					Currency#	CIP Border	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (7)
g)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement		KL	5			
	<b>SUB TOTAL - C3</b>						
	<b>SUB TOTAL - C [C1+C2+C3]</b>						
	<b>GRAND TOTAL - A+B+C (Inaruwa Substation)</b>						
	<b>GRAND TOTAL - I+II</b>						

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

Place:

Date:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Schedule No. 2 : Plant (including Mandatory Spare Parts) Supplied from within Employer's country**

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) x (5)
<b>I</b>	<b>220/132kV Hetauda Substation</b>				
<b>A</b>	<b>Power Transformer</b>				
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2		
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2		

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) x (5)
c)	10MVA, 132/11 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	1		
d)	Insulating oil for 10MVA, 132/11 kV, 3-phase Power Transformer (* 1Lot = Oil for one 10MVA Power Transformer)	Lot*	1		
	<b>SUB TOTAL - A</b>				
<b>B.</b>	<b>Testing &amp; Maintenance Equipments</b>				
a)	Oil Storage Tank of 20KL	No.	1		
	<b>SUB TOTAL - B</b>				
<b>C.</b>	<b>Mandatory Spare List for Power Transformer</b>				
<b>C1.</b>	<b>Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>				
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1		
b)	Cooler fan with Motor	No.	1		
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1		
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1		
e)	Magnetic oil level gauge	No.	1		
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1		
g)	Remote Tap position Indicator	No.	1		

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) × (5)
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement	KL	10		
	<b>SUB TOTAL - C1</b>				
<b>C2.</b>	<b>Mandatory Spare List for 10 MVA, 132/11kV Three Phase Power Transformer</b>				
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1		
b)	Cooler fan with Motor	No.	1		
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1		
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1		
e)	Magnetic oil level gauge	No.	1		
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1		
g)	Remote Tap position Indicator	No.	1		
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement	KL	5		
	<b>SUB TOTAL - C2</b>				
	<b>SUB TOTAL - C [C1 +C2]</b>				
	<b>GRAND TOTAL - A+B+C (Hetauda Substation)</b>				
<b>II</b>	<b>220/132/33kV Inaruwa Substation</b>				
<b>A</b>	<b>Power Transformer</b>				

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) x (5)
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OF AF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2		
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2		
c)	63MVA, 220/33 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF/(OF AF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2		
d)	Insulating oil for 63MVA, 220/33 kV, 3-phase Power Transformer (* 1Lot = Oil for one 63MVA Power Transformer)	Lot*	2		
	<b>SUB TOTAL - A</b>				
<b>B.</b>	<b>Testing &amp; Maintenance Equipments</b>				
a)	Oil Storage Tank of 20KL	No.	1		
b)	10000 LPH Oil Filtration Unit	Set	1		
	<b>SUB TOTAL - B</b>				

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) × (5)
<b>C.</b>	<b>Mandatory Spare List for Power Transformer &amp; Reactor</b>				
<b>C1.</b>	<b>Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>				
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1		
b)	Cooler fan with Motor	No.	1		
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1		
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1		
e)	Magnetic oil level gauge	No.	1		
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1		
g)	Remote Tap position Indicator	No.	1		
h)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	10		
	<b>SUB TOTAL - C1</b>				
<b>C2.</b>	<b>Mandatory Spare List for 63 MVA, 220/33kV Three Phase Power Transformer</b>				
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1		
b)	Cooler fan with Motor	No.	1		
c)	Buchholz Relay(Main Tank) complete with floats and contacts	Set	1		
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1		
e)	Magnetic oil level gauge	No.	1		
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1		

Sl. No.	Item Description	Unit	Qty.	EXW Unit Price NRs	EXW Total Price NRs
(1)	(2)	(3)	(4)	(5)	(6)=(4) x (5)
g)	Remote Tap position Indicator	No.	1		
h)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	5		
	<b>SUB TOTAL - C2</b>				
<b>C3.</b>	<b>Mandatory Spare List for Mandatory Spares for 25MVAR, 145 KV Three Phase Bus Reactor (Siemens Make)</b>				
a)	Buchholz relay complete with float and contacts	Set	1		
b)	Local WTI with sensing device and contacts	Set	1		
c)	Remote WTI with sensing device and contacts	Set	1		
d)	Oil temperature indicator (OTI) with contacts and sensing device	Set	1		
e)	145kV Bushing with metal parts and gaskets along with lifting tools	No	1		
f)	36kV Bushing with metal parts and gaskets along with lifting tools	No	1		
g)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	5		
	<b>SUB TOTAL - C3</b>				
	<b>SUB TOTAL - C [C1+C2+C3]</b>				
	<b>GRAND TOTAL - A+B+C (Inaruwa Substation)</b>				
	<b>GRAND TOTAL - I+II</b>				

Date:  
Place:

Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Common Seal: \_\_\_\_\_





**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Price Schedule No. 3: Design Services**

The scope of the Contract covers the detail design of transformer and its foundation as well. The price of the detail design is deemed to have been covered in the prices of the other schedules. So, the contractor shall not be required to show the breakdown of the prices in this schedule. Accordingly no separate payment shall be made for the design Services.

Item	Description	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
			Local Currency Portion	Foreign Currency Portion (optional)	Local Currency Portion	Foreign Currency Portion (optional)
(1)	(2)	(3)	(4)	(5)	(6)=(4)x(3)	(7)=(5)x(3)
	<b>Not Applicable</b>					
<b>TOTAL</b>						

Date:

Place:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Schedule No. 4. Installation Services**

**Part - A: Local Transportation, Insurance and other Incidental services (including port clearance etc.)**

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
<b>I</b>	<b>220/132kV Hetauda Substation</b>						
<b>A</b>	<b>Power Transformer</b>						
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2				

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
c)	10MVA, 132/11 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	1				
d)	Insulating oil for 10MVA, 132/11 kV, 3-phase Power Transformer (* 1Lot = Oil for one 10MVA Power Transformer)	Lot*	1				
<b>SUB TOTAL - A</b>							
<b>B. Testing &amp; Maintenance Equipments</b>							
a)	Oil Storage Tank of 20KL	No.	1				
<b>SUB TOTAL - B</b>							
<b>C. Mandatory Spare List for Power Transformer</b>							
<b>C1. Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>							
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1				
b)	Cooler fan with Motor	No.	1				
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1				
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1				
e)	Magnetic oil level gauge	No.	1				
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1				
g)	Remote Tap position Indicator	No.	1				
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement	KL	10				

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
	<b>SUB TOTAL - C1</b>						
<b>C2.</b>	<b>Mandatory Spare List for 10 MVA, 132/11kV Three Phase Power Transformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1				
b)	Cooler fan with Motor	No.	1				
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1				
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1				
e)	Magnetic oil level gauge	No.	1				
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1				
g)	Remote Tap position Indicator	No.	1				
h)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	5				
	<b>SUB TOTAL - C2</b>						
	<b>SUB TOTAL - C [C1 +C2]</b>						
	<b>GRAND TOTAL - A+B+C (Hetauda Substation)</b>						
<b>II</b>	<b>220/132/33kV Inaruwa Substation</b>						
<b>A</b>	<b>Power Transformer</b>						

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OF AF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2				
c)	63MVA, 220/33 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF/(OF AF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				
d)	Insulating oil for 63MVA, 220/33 kV, 3-phase Power Transformer (* 1Lot = Oil for one 63MVA Power Transformer)	Lot*	2				
	<b>SUB TOTAL - A</b>						
<b>A2.</b>	<b>Reactor</b>						
a)	25MVAR,145kV Bus reactor (Excluding insulating oil)	Nos.	1				
b)	Insulating Oil for 25 MVAR, 145 kV Shunt Reactors (* 1Lot = Oil for 1 Bus Reactor)	Lot*	1				
	<b>SUB TOTAL - A2</b>						

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
	<b>SUB TOTAL - A [A1+A2]</b>						
	<b>B. Testing &amp; Maintenance Equipments</b>						
a)	Oil Storage Tank of 20KL	No.	1				
b)	10000 LPH Oil Filtration Unit	Set	1				
	<b>SUB TOTAL - B</b>						
	<b>C. Mandatory Spare List for Power Transformer &amp; Reactor</b>						
	<b>C1. Mandatory Spare List for 160 MVA, 220/132/33kV Three Phase Autotransformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1				
b)	Cooler fan with Motor	No.	1				
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1				
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1				
e)	Magnetic oil level gauge	No.	1				
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1				
g)	Remote Tap position Indicator	No.	1				
h)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	10				
	<b>SUB TOTAL - C1</b>						

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
<b>C2.</b>	<b>Mandatory Spare List for 63 MVA, 220/33kV Three Phase Power Transformer</b>						
a)	Bushing of each rating with metal parts & gaskets and lifting tools	Set	1				
b)	Cooler fan with Motor	No.	1				
c)	Buchholz Relay (Main Tank) complete with floats and contacts	Set	1				
d)	Local and Remote WTI & OTI with sensing device and contact (each)	Set	1				
e)	Magnetic oil level gauge	No.	1				
f)	Starters, contactors, switches & Relays for Electrical control panels (One set of each type)	Set	1				
g)	Remote Tap position Indicator	No.	1				
h)	Spare insulating oil to be handed over to NEA after commisioning for O&M requirement	KL	5				
	<b>SUB TOTAL - C2</b>						
<b>C3.</b>	<b>Mandatory Spare List for Mandatory Spares for 25MVAR, 145 KV Three Phase Bus Reactor (Siemens Make)</b>						
a)	Buchholz relay complete with float and contacts	Set	1				
b)	Local WTI with sensing device and contacts	Set	1				
c)	Remote WTI with sensing device and contacts	Set	1				
d)	Oil temperature indicator (OTI) with contacts and sensing device	Set	1				
e)	145kV Bushing with metal parts and gaskets along with lifting tools	No	1				
f)	36kV Bushing with metal parts and gaskets along with lifting tools	No	1				

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
g)	Spare insulating oil to be handed over to NEA after commissioning for O&M requirement	KL	5				
	<b>SUB TOTAL - C3</b>						
	<b>SUB TOTAL - C [C1+C2+C3]</b>						
	<b>GRAND TOTAL - A+B+C ( Inaruwa Substation)</b>						
	<b>GRAND TOTAL - I+II</b>						

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

Date:  
Place:

Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Common Seal: \_\_\_\_\_





**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Schedule No. 4. Installation Services**

**Part - B: Installation Charges**

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
<b>I</b>	<b>220/132kV Hetauda Substation</b>						
<b>A</b>	<b>Power Transformer</b>						
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2				
c)	10MVA, 132/11 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	1				
d)	Insulating oil for 10MVA, 132/11 kV, 3-phase Power Transformer (* 1Lot = Oil for one 10MVA Power Transformer)	Lot*	1				
	<b>SUB TOTAL - A</b>						
<b>B.</b>	<b>Testing &amp; Maintenance Equipments</b>						
a)	Oil Storage Tank of 20KL	No.	1				
	<b>SUB TOTAL - B</b>						
	<b>GRAND TOTAL - A+B ( Hetauda Substation)</b>						
<b>II</b>	<b>220/132/33kV Inaruwa Substation</b>						
<b>A</b>	<b>Power Transformer &amp; Reactor</b>						

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
<b>A1.</b>	<b>Power Transformer</b>						
a)	160MVA, 220/132/33 kV, 3-phase Autotransformer (Excluding insulating oil) with series winding for HV & IV and separate winding for LV, 50Hz, YNa0d11, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				
b)	Insulating oil for 160MVA, 220/132/33 kV, 3-phase Autotransformer (* 1Lot = Oil for one 160MVA Autotransformer)	Lot*	2				
c)	63MVA, 220/33 kV, 3-phase Power Transformer (Excluding insulating oil), 50Hz, YNyn0, oil immersed, ONAN/ONAF/(OFAF or ODAF) (or ONAF1/ONAF2) cooled, outdoor type, complete with all fittings and accessories including Main Control Cabinet, Cooling Control Cabinet, Digital RTCC Panel, OLTC, neutral CTs and On line Dissolved Gas (Multi Gas) Analysis and Moisture Monitoring System and all fittings & accessories as specified/required for completion of the scope of works as per technical specification	Nos.	2				

Sl. No.	Item Description	Unit	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>	
				Foreign Currency	Local Currency	Foreign Currency	Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(5)	(8)=(4)x(6)
d)	Insulating oil for 63MVA, 220/33 kV, 3-phase Power Transformer (* 1Lot = Oil for one 63MVA Power Transformer)	Lot*	2				
	<b>SUB TOTAL - A1</b>						
<b>A2.</b>	<b>REACTOR</b>						
a)	25MVAR, 145kV Bus reactor (Excluding insulating oil)	Nos.	1				
b)	Insulating Oil for 25 MVAR, 145 kV Shunt Reactor (* 1Lot = Oil for 1 Bus Reactor)	Lot*	1				
	<b>SUB TOTAL - A2</b>						
	<b>SUB TOTAL - A [A1+A2]</b>						
<b>B.</b>	<b>Testing &amp; Maintenance Equipments</b>						
a)	Oil Storage Tank of 20KL	No.	1				
b)	10000 LPH Oil Filtration Unit	Set	1				
	<b>SUB TOTAL - B</b>						
	<b>GRAND TOTAL - A+B ( Inaruwa Substation)</b>						
	<b>GRAND TOTAL - I+II</b>						

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

Date:  
Place:

Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**  
ICB No.: NIETTP/G/ICB-5/TRANS

**Schedule No. 4. Installation Services**  
**Part-C(I): Training Charges for Training to be imparted abroad**

S. No.	Description	Item for which training is to be imparted.	Country where training is to be imparted	Nos. of Trainee	Training duration in days	Currency	Training charge per Trainee per day	Total Training Charges
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(5)x(6)x(8)
1	Training to Employer personnel on Design, Testing and Maintenance aspect of Power Transformer and Reactor as per Technical Specification at manufacturer's works	Auto & Power Transformer and Reactor		5	5			
	<b>Total for Training Charges</b>							

Date:  
Place:

Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

(Schedule of Rates and Prices)

**Bidder's Name & Address:**

ICB No.: NIETTP/G/ICB-5/TRANS

**Schedule No. 4. Installation Services**

**Part-C(II): Training Charges for Training to be imparted within the Employer's country**

**1. Price Component of training to be imparted to Employer's Personnel by Bidder's instructor**

Sl. No.	Description	Item for which training is to be imparted.	Training duration in days	Currency	Per Day Training Charges for Contractors Trainers	Total Training Charges
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(6)
1	Training to Employer personnel on Design, erection, testing, operation and maintenance aspect of Power Transformer and Reactor as per Technical Specification at Site/Kathmandu ( Max 10 trainee)	Auto & Power Transformer and Reactor	5			
	<b>Total for Training Charges</b>					

**REMARKS:**

**On Job Training in Nepal:** The traveling and living expenses of Employer's personnel for the training programme conducted in Employer country shall be borne by the Employer.

Date:

Place:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

(Schedule of Rates and Prices)

Bidder's Name & Address:

ICB No.: NIETTP/G/ICB-5/TRANS

Schedule No. 4. Installation Services

Part-D(I): Break-up of Type Test Charges for Type Tests to be conducted abroad

Sl. No.	Description	Testing Location	Type Test Charges	
			Currency	Total
(1)	(2)	(3)	(4)	(5)
(A)	<b>TYPE TEST of 160 MVA, 220/132/33kV Three Phase Autotransformer</b>			
1	Temperature rise test			
2	Measurement of Acoustic Noise Level			
3	Measurement of Harmonic level in no-load current			
4	Measurement of Zero seq. reactance			
5	Measurement of power taken by fans and oil pumps			
(B)	<b>TYPE TEST of 63 MVA, 220/33kV Three Phase Power Transformer</b>			
1	Temperature rise test			
2	Measurement of Acoustic Noise Level			
3	Measurement of Harmonic level in no-load current			
4	Measurement of Zero seq. reactance			
5	Measurement of power taken by fans and oil pumps			
(C)	<b>TYPE TEST of 10 MVA, 132/11 kV Three Phase Power Transformer</b>			
1	Temperature rise test			
2	Measurement of Acoustic Noise Level			
3	Measurement of Harmonic level in no-load current			
4	Measurement of Zero seq. reactance			
5	Measurement of power taken by fans and oil pumps			
	<b>TOTAL</b>			

Date:

Place:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for Hetauda and Inaruwa Substations**

(Schedule of Rates and Prices)

Bidder's Name & Address:

ICB No.: NIETTP/G/ICB-5/TRANS

Schedule No. 4. Installation Services

Part-D(II): Break-up of Type Test Charges for Type Tests to be conducted in Employer Country

Sl. No.	Description	Testing Location	Type Test Charges NRs.
(1)	(2)	(3)	(4)
<b>(A)</b>	<b>TYPE TEST of 160 MVA, 220/132/33kV Three Phase Autotransformer</b>		
1	Temperature rise test		
2	Measurement of Acoustic Noise Level		
3	Measurement of Harmonic level in no-load current		
4	Measurement of Zero seq. reactance		
5	Measurement of power taken by fans and oil pumps		
<b>(B)</b>	<b>TYPE TEST of 63 MVA, 220/33kV Three Phase Power Transformer</b>		
1	Temperature rise test		
2	Measurement of Acoustic Noise Level		
3	Measurement of Harmonic level in no-load current		
4	Measurement of Zero seq. reactance		
5	Measurement of power taken by fans and oil pumps		
<b>(C)</b>	<b>TYPE TEST of 10 MVA, 132/11kV Three Phase Power Transformer</b>		
1	Temperature rise test		
2	Measurement of Acoustic Noise Level		
3	Measurement of Harmonic level in no-load current		
4	Measurement of Zero seq. reactance		
5	Measurement of power taken by fans and oil pumps		
	<b>Total</b>		

Date:

Place:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_





**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor  
for Hetauda and Inaruwa Substations**

**(Schedule of Rates and Prices)**

**Bidder's Name & Address:**

**ICB No.: NIETTP/G/ICB-5/TRANS**

**Price Schedule No. 5. Grand Summary (Schedule Nos. 1 to 4)**

S.No.	Description	Total Price <sup>#</sup>	
		Foreign Currency Portion	Local Currency Portion
(1)	(2)	(3)	(4)
1.	Total Schedule No. 1. Plant, and Mandatory Spares Parts to be supplied from abroad		
2.	Total Schedule No. 2. Plant, and Mandatory Spares Parts to be supplied from within the Employer's country		
3	Total Schedule No. 3. Design Services	Price to be included in the "Supply and Installation Charges" Schedules	
4.	Schedule No. 4. Installation Services		
Part A:	Local Transportation, Insurance and other Incidental services (including port clearance etc.)		
Part - B:	Installation Charges		
Part- C:	(I) Training Charges for Training to be imparted abroad		
	(II) Training Charges for Training to be imparted within the Employer's country		
Part - D:	(I) : Break-up of Type Test Charges for Type Tests to be conducted abroad		
Part - D:	(II) : Break-up of Type Test Charges for Type Tests to be conducted in Employer Country		
	<b>Total Schedule No. 4. Installation and other Services</b>		
<b>GRAND TOTAL excluding VAT (to Bid Form)</b>			

**Date:**

**Place:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_

**Note:**

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



**Procurement of Plant Design, Supply and Installation of Power Transformer and Reactor for  
Hetauda and Inaruwa Substations**

(Schedule of Rates and Prices)

Bidder's Name & Address:

ICB No.: NIETTP/G/ICB-5/TRANS

**Schedule No.6. Recommended Spare Parts**

Item	Description	Qty.	Unit Price <sup>#</sup>		Total Price <sup>#</sup>
			CIF or CIP (Foreign Parts)	EXW (Local Parts)	
(1)	(2)	(3)	(4)	(5)	(6)
				TOTAL	

Date: \_\_\_\_\_  
 Place: \_\_\_\_\_

Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Designation: \_\_\_\_\_  
 Common Seal: \_\_\_\_\_

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

