



**BID DOCUMENT FOR
DESIGN, CONSTRUCTION, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING
OF 2X25 kV ELECTRIFICATION, SIGNALLING & TELECOMMUNICATION AND
ASSOCIATED WORKS FOR THE DOUBLE TRACK RAILWAY LINE UNDER
CONSTRUCTION ON DESIGN BUILD LUMP SUM BASIS FROM NEW KARWANDIYA
(RLY KM. 564) TO DURGAUTI (RLY KM.630) APPROX. 66 KMS OF ROUTE ON
MUGHALSARAI-SONNAGAR SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR.**

SYSTEM WORKS CONTRACT PACKAGE

Issued on: **26-10-2012**

NCB Bid Document No.: HQ/SYS/DB/NKWD-DGO

(Part-5)

Price Schedules

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
A GOVERNMENT OF INDIA ENTERPRISE**

under

**MINISTRY OF RAILWAYS
INDIA**

PART – 5

Price Schedules

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PART – 5 - Price Schedules

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PREAMBLE

1. The Price Schedules shall be read in conjunction with the “Instructions to Bidders”, “General Conditions”, “Particular Conditions”, “Employer’s Requirement”, “Technical Specifications”, and “Drawings”.
2. The bidder shall quote *lump sum cost in INR for the entire project* “DESIGN, CONSTRUCTION, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 2X25 KV ELECTRIFICATION, SIGNALLING & TELECOMMUNICATION AND ASSOCIATED WORKS FOR DOUBLE TRACK RAILWAY LINE ON DESIGN BUILD LUMP SUM BASIS FROM NEW KARWANDIYA (RLY KM. 564) TO DURGAUTI (RLY KM.630) APPROX. 66 KMS ON MUGHALSARAI-SONNAGAR SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR.” in schedule A. The cost shall cover all the items of the work as detailed in the “Employer’s Requirement” contained in Part-2 Section-V of the Bid document as well as conforming to all specifications and stipulations laid down in the Bid Document including all addenda/corrigenda thereof till the date of submission of Bids. The lump sum cost shall be inclusive of all costs on Design, Drawings, Reports, Survey, Site Facilities, Construction Equipment, Plants, Instruments, Labour, Supervision, Materials, Erection, Testing, Maintenance, Temporary Works, Site Access, Safety, Security, Defect Rectification, Insurance, Profit, Taxes and duties, Levies, Royalties and all risks, liabilities and obligations as set out or implied in the contract.
3. Lump sum Cost shall be quoted in **Schedule A**. Appointment of the quoted Lumpsum cost between Electrical Works, Signalling and Telecommunication Works is set out in Schedule B and is not negotiable. Costs are further pre-apportioned amongst cost centres and sub-centres for works of Electrical, Signalling and Telecommunication in Schedules C, D and E as indicated in respective Schedules. Stage payments shall be regulated accordingly.
4. **Important note for filling in blanks in Bid document**

Cost shall be legibly filled in with indelible ink or be type written in the space specifically provided. The person authorized to sign on behalf of the Bidder shall sign in full with the date at the bottom on all pages and at the end of schedules.

**PROPOSAL SUBMISSION SHEET
(To be submitted with Financial Proposal only)**

Invitation for Bid No.: HQ/SYS/DB/NKWD-DGO

To:

The undersigned, declare(s) that:

- (a) I/We have examined the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 7 and have no reservations whatsoever;
- (b) I/We offer to execute the Work in conformity with the Bidding Documents;
- (c) The total Lump-Sum price of our Bid is as per **Schedule A**;
- (d) I/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; and
- (e) There is no tampering or change made in the bidding documents on which the bid is being submitted and if any tampering or changes are detected at any stage, we understand the bid shall be summarily rejected with forfeiture of bid security or the contract will be liable to be terminated along with forfeiture of performance security, if LOA has been issued.
- (f) I/We understand that our bid may be rejected without assigning any reason therefore and this I/We accept.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

PRICE SCHEDULE

Schedule A

(Sub-clause 14.1 of GC)

Name of Work :- “Design, construction, supply, installation, testing and commissioning of 2x25 kv electrification, signaling & telecommunication and associated works for double track railway line on design build lump sum basis from New Karwandiya (Rly km. 564) to Durgauti (Rly km.630) approx. 66 kms on Mughalsarai-Sonnagar section of Eastern Dedicated Freight Corridor”.			
S No.	Description of Schedule	Lump Sum cost in INR	
		In Figures	In Words
1	2	3	4
1	Design, construction, supply, installation, testing and commissioning of 2x25 kv electrification, signaling & telecommunication and associated works for double track railway line on design build lump sum basis from New Karwandiya (Rly km. 564) to Durgauti (Rly km.630) approx. 66 kms on Mughalsarai-Sonnagar section of Eastern Dedicated Freight Corridor		
	Total Amount		

Note:-

- 1) The cost shall be filled in with indelible ink or be type written.
- 2) The above quoted cost covers all items of the work as detailed in the “Employer’s Requirement” contained in Part 2 – Section –V as well as conforming to all specifications and stipulations laid down in the Bid Document including all addenda/corrigenda thereof till the date of submission of Bids.
- 3) I/We have verified and confirm that the amounts quoted in Schedule A above in figures agree with the amount quoted in words and that in event of any discrepancy in the two, the amount quoted in words shall be taken as final.
- 4) The percentage (%) of lump sum cost for stage payment of Electrical, Signalling & Telecommunication works shall be as given in Price Schedule (B)

SIGNATURE OF BIDDER

PRICE SCHEDULE

Schedule – B

Apportionment of contract price for payments of Electrical, Signal and Telecommunication works

SN (1)	Cost centre of Works (2)	Contract price as proportion of total lumpsum cost quoted in Schedule A, expressed as percent (3)
1.	Electrical Works (Schedule C)	58%
2.	Signaling Works (Schedule D)	36%
3.	Telecommunication Works (Schedule E)	6%
	Total	100%

NOTE: The proportions indicated by the Employer for the apportionment of contract price for Electrical, Signaling and Telecommunication works are fixed .

PRICE SCHEDULE
Schedule –C (Electrical Works)

(Sub-clause 14.4, GC)

Apportionment of Contract Price for Payments of Electrical Works According to Cost Centers

	S N	Cost Centre	Proportion of Contract Price as indicated in Schedule B
	(1)	(2)	(3)
		Sub Centre	
Electrical Works	C1	Survey, Investigation, Design, and As Built drawings for System Works	2 %
	C2	Overhead electrical works	36 %
	C3	132kv Power transmission Line	2 %
	C4	132kv Bay extension works at GSS	1 %
	C5	Traction Sub-station(TSS)	28 %
	C6	Sectioning Post(SP)	7 %
	C7	Sub-Sectioning Posts(SSPs)	14 %
	C8	General Power Supply works(E &M)	1 %
	C9	SCADA works	1 %
	C10	Training including Operation & Maintenance manuals	1 %
	C11	Spares, M & P and T & P for Maintenance	5 %
	C12	Integrated Testing & Commissioning	2 %
		Total	100%

The proportions as indicated by the Employer in the table above are not negotiable and stage payment shall be regulated accordingly as also set out in schedules C-1 through C-12. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule C1 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Survey, Investigation, Studies, Design & Drg. and as Built Drgs. of Electrical works.

(Sub-clause 14.4 of GC)

Cost Centre	Item of work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % amount in item C1 of Schedule C	Cost	Payment procedure
Survey, Investigation, studies, Design & Drawings: and As Built as per Employer's Requirement	Survey & Geo-Technical investigations	C1.1	Survey for electrification work, 132 KV TR Line & bay extension work	5%	2% of contract price of Electrical works	Lump Sum on completion of respective stage
	Various Studies for System Design of Electrical works.	C1.2	Preliminary/basic design pertaining to Finalization of power rating of Traction Equipments, sizing of OHE components and other Electrical works including Earthing and Bonding and Design Manual for System Design.	30%		Lump Sum on completion of respective stage
	Detailed Design of traction supply equipment, Overhead equipment, SCADA, 132 KV transmission line & bay extension and E&M work.	C1.3	Detailed Design of Electrical works including Lay Out Plans, and "GOOD FOR CONSTRUCTION" Drawings			
		a)	For OHE works	20%		Lump Sum on completion of respective stage
		b)	For traction power supply works including SCADA	20%		Lump Sum on completion of respective stage
		c)	Transmission line and bay extension works	10%		Lump Sum on completion of respective stage
		d)	General power supply works (E&M) including SCADA	5%		Lump Sum on completion of respective

						stage
	As Built Drawings	C1.4		As built Design, Drawings	10%	Lump Sum on completion of respective stage
				TOTAL	100%	

NOTE : Stage Payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C2 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for OHE Works.**

(Sub Clause 14.4 of GC)

Cost Centre	Item of work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C2 of Schedule C	Cost	Payment Procedure
OHE Works as per Employer's requirement	Supply, execution and testing of OHE works	C2.1*	Supply of Contact wire at Site	17%	36% of contract price of Electrical works	Unit of measurement is Track Km. Length (TKM) as per approved BOQ. Payment will be made on completion of each of Track Km. Length (TKM) as per weight age given in this Schedule
		C2.2*	Supply of Catenary wire at Site	17%		
		C2.3	On completion of Foundation work	5%		
		C2.4	On erection of structures and SPS	11%		
		C2.5	On supply & erection of Cantilever assembly	13%		
		C2.6	On completion of Wiring work inclusive of feeder wire, Arial earth wire droppers Termination arrangements(ATDs).	9%		
		C2.7	On supply & Erection of Section Insulators, PTFEs, Isolators and other associated fittings, including Earthing and Bonding arrangement, final adjustments and SED checking.	9%		
		C2.8	On Supply & erection of ATs including cabling, change over switch	3%		
		C2.9	Tower wagon checking/ pantograph run , Testing and commissioning/energization of OHE System	10%		
			TOTAL	100%		

Note-1. * Payment against materials for Works vide item Sub cost center C2.1 & C2.2 above

- i) In respect of Supply of Materials by the Contractor to the site for incorporation in the Permanent Works, the Contractor shall be paid 80% of the respective sub-cost centre as per above schedule, and 20% shall be paid on Erection after completion of sub-cost centre C2.6 above.
 - ii) The materials are delivered at the site after type test/factory acceptance test and are properly stored and protected against loss, damage and deterioration.
 - iii) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
- 2.** The Contractor shall ensure that:-
- i) The materials used are in accordance with the specification for the works.
 - ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
- 3.** Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C3 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for 132 kV Transmission line Works**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C3 of Schedule C	Cost	Payment Procedure
132kv Double Circuit Transmission line as per Employer's requirement	Procurement of materials/equipment and construction of Double Circuit 132kv TR Line from GSS of BSEB at Mathurapur to New Karwandiya TSS and its interface with GSS, testing and commissioning of works as per the specifications contained in Employer's Requirement.	C3.1	On completion of Foundation work	15%	2% of contract price of Electrical works	Unit of measurement is linear length along alignment. Payment of each stage will be made on prorata completion of linear length as per approved BOQ.
		C3.2	On erection of Galvanized steel Towers	40%		
		C3.3	On completion of Stringing of Earth Wire and all Conductors and all balance works including insulators, earthing, grounding, Tack Welding etc.	35%		
		C3.4	Testing and Commissioning/ Energization of TR line.	10 %		
Total:				100%		

Note -1. The Contractor shall ensures that:-

- (i) The material used are in accordance with the specification for the works.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C4 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for 132 kV Double Circuit Bay Extension works at GSS.**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C4 of Schedule C	Cost	Payment Procedure
132kv Bay Extension works as per Employer's requirement	Procurement of materials/equipments and construction of Two nos of 132 kV.bays at 220 kV.GSS of BSEB at Mathurapur and its interface with 132 kV Transmission Line between Mathurapur and New Karwandiya including testing and commissioning works as per the specifications contained in Employer's Requirement.	C4.1	On completion of Foundation works.	5%	1% of contract price of Electrical works	Payment will be made on completion of each stage as per weight age given in this Schedule
		C4.2	On Erection of all Galvanized steel structures and SPS.	10%		
		C4.3	On erection of all other Equipment including PLCC and Control & Relay Panel.	45%		
		C4.4	On completion of the erection of Bus Bar/Strung Bus, Earthing System, Cabling and other indoor & outdoor Electrical & Civil Works including interface with 132 kV Transmission Line and GSS .	30%		
		C4.5	Testing and Commissioning/ Energization	10%		
Total:				100%		

Note -1. The Contractor shall ensures that:-

- (i) The material used are in accordance with the specification for the works.
- (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.

2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C5 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for Traction Sub Station (TSS)**

(Sub-clause 14.4, GC)

Cost Centre	Item of work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C.5 of Schedule C	Cost	Payment Procedure
Traction Sub-Station works as per Employer's requirement	Supply, execution and testing of traction sub station (TSS)	C5.1*	Supply of Transformers at Site	51%	28% of contract price of Electrical works	Payment will be made on completion of each stage as per Weightage given in this Schedule.
		C5.2*	Supply of ATs at Site	13.5%		
		C5.3	On completion of foundation work	1%		
		C5.4	On erection of Galvanized Steel structures and SPS	3%		
		C5.5	On Erection of all other equipments including Switchgears and Control gears, Control and Relay panel, Bus-bars, Earthing, Cabling and Other Indoor and Outdoor Electrical and Civil works.	21.5%		
		C5.6	Testing, commissioning and Energization of TSS	10%		
			TOTAL	100%		

Note-1. * Payment against materials for Works vide item Sub cost center C5.1 & C5.2 above

- i) In respect of Supply of Materials by the Contractor to the site for incorporation in the Permanent Works, the Contractor shall be paid 80% of the respective sub-cost centre as per above schedule, and 20% shall be paid on Erection after completion of sub-cost centre C5.5 above.
 - ii) The materials are delivered at the site after type test/factory acceptance test and are properly stored and protected against loss, damage and deterioration.
 - iii) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
- 2.** The Contractor shall ensure that:-
- i) The materials used are in accordance with the specification for the works.
 - ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
- 3.** Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C6 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for Sectioning Post (SP)**

(Sub-clause 14.4, GC)

Cost Centre	Item of work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C.6 of Schedule C	Cost	Payment Procedure
Sectioning Posts(SP) works as per Employer's requirement	Supply, execution and testing of sectioning posts	C6.1*	Supply of ATs at site	58%	6% of contract price of Electrical works	Payment will be made on completion of each stage as per weight age given in this Schedule
		C6.2	On completion of Foundation	0.5%		
		C6.3	On Erection of structures and SPS	1.5%		
		C6.4	On Completion of Erection of Switchgears and Other equipment/materials and all balance works e.g. Bus bar and its connections, General Electrical and Civil works, Earthing /grounding and Graveling etc.	30%		
		C6.5	Testing and commissioning / Energization	10%		
			TOTAL	100%		

Note-1. * Payment against materials for Works vide item Sub cost center C6.1 above

- i) In respect of Supply of Materials by the Contractor to the site for incorporation in the Permanent Works, the Contractor shall be paid 80% of the respective sub-cost centre as per above schedule, and 20% shall be paid on Erection after completion of sub-cost centre C6.4 above.
 - ii) The materials are delivered at the site after type test/factory acceptance test and are properly stored and protected against loss, damage and deterioration.
 - iii) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
2. The Contractor shall ensure that:-
 - i) The materials used are in accordance with the specification for the works.
 - ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
 3. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C7 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for Sectioning and Paralleling Posts (SSPs)**

(Sub-clause 14.4, GC)

Cost Centre	Item of work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C.7 of Schedule C	Cost	Payment Procedure
Sectioning Posts(SSPs) works as per Employer's requirement	Supply, execution and testing of sub-sectioning and paralleling posts	C7.1*	Supply of ATs at Site	54%	14% of contract price of Electrical works	Unit of measurement is number of Sectioning and Paralleling Posts (SSP) and Payment of each stage will be made on its completion as per weight age given in this Schedule. Payment will be made on prorate basis of no. of SSPs.
		C7.2	On completion of Foundation	3%		
		C7.3	On Completion of Erection of structures and SPS	3%		
		C7.4	On Completion of Erection of Switchgears and Other equipment/materials and all balance works etc. Bus bar and its connections, General Electrical and Civil works , Earthing/ grounding and Graveling etc.	30%		
		C7.5	Testing and commissioning/Energization	10%		
			Total	100%		

Note-1. * Payment against materials for Works vide item Sub cost center C7.1 above

- i) In respect of Supply of Materials by the Contractor to the site for incorporation in the Permanent Works, the Contractor shall be paid 80% of the respective sub-cost centre as per above schedule, 20% shall be paid on Erection after completion of sub-cost centre C7.4 above.
 - ii) The materials are delivered at the site after type test/factory acceptance test and are properly stored and protected against loss, damage and deterioration.
 - iii) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
2. The Contractor shall ensure that:-

- i) The materials used are in accordance with the specification for the works.
 - ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
- 3.** Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C8 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for General Power Supply Works (E&M)**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C8 of Schedule C	Cost	Payment Procedure
General Power Supply (E & M) works as per Employer's requirement	Procurement, installation of Power Supply materials/ Equipment along with testing and commissioning for Railway stations/ as per the specifications contained in Employer's Requirement .		Supply, Construction & commissioning of Substations (11 kV/440v), DG sets for Stations and Quarters, obtaining supply from BSEB at Sub-stations, and general electrical works at all Stations	100%	1% of contract price of Electrical works	Lumpsum on completion

Note -1. The Contractor shall ensures that:-

- (i) The material used are in accordance with the specification for the works.
- (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.

2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C9 (Electrical Works)

**Weight age for Interim Stage Payments
 for Cost Centre
 for SCADA Works**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C9 of Schedule C	Cost	Payment Procedure
SCADA Works as per Employer's requirement	Supply, installation and commissioning of SCADA works as per the specifications contained in Employer's Requirement		Supply, installation and commissioning of SCADA System along with associated equipment/materials	100%	1% of contract price of Electrical works	Lump Sum on completion

Note -1. The Contractor shall ensure that:-

- (i) The material used are in accordance with the specification for the works.
- (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.

2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C10 (Electrical Works)

**Weight age for Interim Stage Payments
 for Cost Centre
 for Operation & Maintenance manuals and Training**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C10 of Schedule C	Cost	Payment Procedure
Training including Operation & Maintenance Manual as per Employer's Requirement	Training as per Employer's Requirement	C10.1	Training of Employer's personnel, Submission of	80%	1% of contract price of Electrical works	Lump-Sum on completion of respective stage as per Weightage given in this Schedules
	Operation & Maintenance Manual	C10.2	Submission of operation and maintenance manuals	20%		
			Total	100%		

Note -1. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule C11 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for Supply of T&P, M&P and Spares**

(Sub-clause 14.4 of GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C11 of Schedule C	Cost	Payment Procedure
Spares, T&P and M&P for maintenance as per Employer's requirement	Supply of Spares, T&P and M&P for maintenance as per Employer's Requirement (Electrical Works)	C11.1	Supply of spares for OHE	14%	5% of contract price of Electrical works	Lump Sum on completion of respective stage
		C11.2	Supply of spares for PSI, SCADA	30%		
		C11.3	Supply of T&P for OHE, PSI and SCADA	6%		
		C11.4	Supply of Tower Wagon (8 Wheeler) as per RDSO specification and its commissioning at rated speed	50%		
		TOTAL		100%		

Note -1: Payment will be made on certification of the Engineer/Employer for various item

- Above items of spares and tower wagon shall be delivered in good condition and shall be packed/stacked as specified and handed over to the nominated official(s) of DFCC at locations indicated by the Engineer

Price Schedule C12 (Electrical Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 for Integrated Testing and Commissioning**

(Sub-clause 14.4, GC)

Cost Centre	Item of Work	Sub Cost Centre	Stage to be completed to quality for Stage Payment of sub-cost centre	Weight age as % of amount in item C12 of Schedule C	Cost	Payment Procedure
Electrical works	Integrated Testing and Commissioning as per Employer's requirement	C12.1	After successful completion of Integrated Testing and Commissioning of Electrical works	50%	2% of the Contract Price of Electrical works	Lump Sum on completion of respective stage
		C12.2	Final Taking over after OHE fit for 100 KMPH.	50%		
			Total	100%		

Note-1 : Payment will be made on certification of the Engineer/Employer's Representative for sub-cost centers.

Schedule –D (Signaling Works)

(Sub-clause 14.4, GC)

Apportionment of Contract Price for Payments of Signaling Works According to Cost Centers

	S N	Cost Centre	Percentage of Contract Price
	(1)	(2)	(3)
		Sub Group	
Signaling Works	D1	Design, Management Plans, O&M Manuals, As Built drawings, for Signaling Works	5%
	D2	Signalling works at New Karwandiya station	8%
	D3	Signalling works at two class C stations	4%
	D4	Signalling works at New Kudra station	6%
	D5	Signalling works at New Durgauti station	6%
	D6	Signaling works between New Karwandiya and Sasaram stations	8%
	D7	Signaling works between Sasaram and New Kudra stations	20%
	D8	Signaling works between New Kudra and New Durgauti stations	28%
	D9	Level crossing gates	5%
	D10	Integrated testing , commissioning and field trial	2%
	D11	Training	1%
	D12	Contract spares	5%
	D13	Test and measuring equipment	2%
		Total	100%

The percentage figures as filled in column 3 by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the items given above are fixed.. and payment will be released for different cost centre as per above percentage break-up of contract price. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule D-1 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Design, Management Plans, O&M Manuals, As built drawings, for Signaling Works

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Design, Management Plans, O&M Manuals, As built drawings, for Signaling Works	Management plan	D1.1	Project plan, Quality Plan, Safety plan, Design plan separately for complete works and phase1 work.	5%	5% of contract price of Signaling works	Review and/or Approval with or without comments by the engineer
		D1.2	Interface management plan, EMC management plan, Procurement, manufacture & delivery plan, Factory acceptance testing plan, Construction and installation management plan, Testing & commissioning plan separately for complete works and phase 1 work.	5%		
		D1.3	Operation & maintenance plan, Training plan, Spare parts & consumable management plan, Defect liability management plan, Maintenance management plan, Trial run plan separately for complete works and phase 1 work.	5%		
	Preliminary design documents	D1.4	All preliminary design documents for complete works	5%		Review and /or Approval with or without comments by the engineer
		D1.5	All preliminary design documents for phase 1 work	5%		
	Definite design documents	D1.6	System design, Signalling plan for complete works	10%		Review and/or Approval with or without comments by the engineer
		D1.7	System design, Signalling plan for phase 1 works	5%		
		D1.8	All the remaining definite design documents for complete works	10%		
		D1.9	All the remaining definite design documents for phase 1 work.	5%		
	O& M manuals	D1.10	O&M manual for complete works	10%		Review and/or Approval with or without comments by the engineer
		D1.11	O&M manual for phase 1 works	10%		
	As Built Drawings	D1.12	As built drawings for phase 1 work	10%		Review and/or Approval with or without comments by the engineer
		D1.13	As built drawings for complete works	10%		

	Any other document	D1.14	Any other document required to be given as part of the contract	5%		Review and/or Approval with or without comments by the engineer.
			TOTAL	100%		

Note :. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-2 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Signaling works at New Karwandiya station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signaling works at New Karwandiya station	Delivery of material	D2.1	Delivery of signaling and power cable for phase 1.	10%	8% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer.
		D2.2	Delivery of EI hardware equipment along with associated accessories for phase 1.	10%		
		D2.3	Delivery of power supply equipment and batteries along with associated accessories for phase 1.	5%		
		D2.4	Delivery of track vacancy detection hardware equipment along with associated accessories for phase 1.	10%		
		D2.5	Delivery of signals, point machines and block instruments along with associated accessories for phase 1.	10%		
		D2.6	Delivery of balance indoor equipment for phase 1.	5%		
		D2.7	Delivery of balance outdoor equipment for phase 1.	5%		
		D2.8	Delivery of balance indoor and outdoor equipment for complete works.	5%		
	Installation	D2.9	Installation of all indoor equipment for phase 1.	5%		Review and Acceptance of installation test report by the engineer.
		D2.10	Installation of all outdoor equipment for phase 1.	5%		
		D2.11	Installation of all indoor and outdoor equipment for complete works.	5%		
	System acceptance test	D2.12	Delivery and installation of software and system acceptance test for phase 1.	5%		Review and Acceptance of system acceptance test report by the engineer.
		D2.13	Delivery and installation of software and system acceptance test for complete works.	5%		
	Earthing and surge protection	D2.14	Installation of earthing and surge protection equipment for phase 1 works.	5%		Review and Acceptance of installation test report and system acceptance test report by the engineer.
		D2.15	Installation of earthing and surge protection equipment for complete works.	5%		
	Any other item	D2.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, Review and/or Approval/Acceptance

						ptance by the engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-3 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Signaling works at two C class stations

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signaling works at two C class stations	Delivery of material	D3.1	Delivery of signaling and power cable for phase 1.	10%	4% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer on prorata basis per station.
		D3.2	Delivery of EI hardware equipment along with associated accessories for phase 1.	10%		
		D3.3	Delivery of power supply equipment and batteries along with associated accessories for phase 1.	5%		
		D3.4	Delivery of track vacancy detection hardware equipment along with associated accessories for phase 1.	10%		
		D3.5	Delivery of signals, point machines and block instruments along with associated accessories for phase 1.	10%		
		D3.6	Delivery of balance indoor equipment for phase 1.	8%		
		D3.7	Delivery of balance outdoor equipment for phase 1.	7%		
	Installation	D3.8	Installation of all indoor equipment for phase 1.	5%		Review and Acceptance of installation test report by the engineer on prorata basis per station.
		D3.9	Installation of all outdoor equipment for phase 1.	5%		
		D3.10	Dismantling of all redundant indoor and outdoor equipment for complete works.	5%		
	System acceptance test	D3.11	Delivery and installation of software and system acceptance test for phase 1.	10%		Review and Acceptance of system acceptance test report by the engineer on prorata basis per station.
	Earthing and surge protection	D3.12	Installation of earthing and surge protection equipment for phase 1 works.	10%		Review and Acceptance of Installation Test Report and System Acceptance Test Report by the engineer on prorata basis

					per station.
	Any other item	D3.13	Any other work required to be done for complete works.	5%	Verification, review and/or Approval/Acceptance by the Engineer on prorata basis per station.
			TOTAL	100%	

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-4 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Signaling works at New Kudra station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signal ing works at New Kudra station	Delivery of material	D4.1	Delivery of signaling and power cable for phase 1.	10%	6% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer.
		D4.2	Delivery of EI hardware equipment along with associated accessories for phase 1.	10%		
		D4.3	Delivery of power supply equipment and batteries along with associated accessories for phase 1.	5%		
		D4.4	Delivery of track vacancy detection hardware equipment along with associated accessories for phase 1.	10%		
		D4.5	Delivery of signals, point machines and block instruments along with associated accessories for phase 1.	10%		
		D4.6	Delivery of balance indoor equipment for phase 1.	5%		
		D4.7	Delivery of balance outdoor equipment for phase 1.	5%		
		D4.8	Delivery of balance indoor and outdoor equipment for complete works.	5%		
	Installation	D4.9	Installation of all indoor equipment for phase 1.	5%		Review and Acceptance of installation test report by the engineer.
		D4.10	Installation of all outdoor equipment for phase 1.	5%		
		D4.11	Installation of all indoor and outdoor equipment for complete works.	5%		
	System acceptance test	D4.12	Delivery and installation of software and system acceptance test for phase 1.	5%		Review and Acceptance of system acceptance test report by the engineer.
		D4.13	Delivery and installation of software and system acceptance test for phase 2.	5%		
	Earthing and surge protection	D4.14	Installation of earthing and surge protection equipment for phase 1 works.	5%		Review and Acceptance of installation test report and system acceptance test report by the engineer.
		D4.15	Installation of earthing and surge protection equipment for complete works.	5%		
	Any other item	D4.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approval/Acceptance

						ptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-5 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Signaling works at New Durgauti station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signaling works at New Durgauti station	Delivery of material	D5.1	Delivery of signaling and power cable for phase 1.	10%	6% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer.
		D5.2	Delivery of EI hardware equipment along with associated accessories for phase 1.	10%		
		D5.3	Delivery of power supply equipment and batteries along with associated accessories for phase 1.	5%		
		D5.4	Delivery of track vacancy detection hardware equipment along with associated accessories for phase 1.	10%		
		D5.5	Delivery of signals, point machines and block instruments along with associated accessories for phase 1.	10%		
		D5.6	Delivery of balance indoor equipment for phase 1.	5%		
		D5.7	Delivery of balance outdoor equipment for phase 1.	5%		
		D5.8	Delivery of balance indoor and outdoor equipment for complete works.	5%		
	Installation	D5.9	Installation of all indoor equipment for phase 1.	5%		Review and Acceptance of installation test report by the engineer.
		D5.10	Installation of all outdoor equipment for phase 1.	5%		
		D5.11	Installation of all indoor and outdoor equipment for complete works.	5%		
	System acceptance test	D5.12	Delivery and installation of software and system acceptance test for phase 1.	5%		Review and Acceptance of system acceptance test report by the engineer.
		D5.13	Delivery and installation of software and system acceptance test for phase 2.	5%		
	Earthing and surge protection	D5.14	Installation of earthing and surge protection equipment for Phase 1 Work.	5%		Review and Acceptance of installation test report and system acceptance test report by the engineer.
		D5.15	Installation of earthing and surge protection equipment for Complete Works.	5%		
	Any other item	D5.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, Review and/or Approval/Acceptance

						ptance by the engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-6 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Signaling works between New Karwandiya and Sasaram stations**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signaling works between New Karwandiya and Sasaram stations	Delivery of material	D6.1	Delivery of signaling and power cable.	15%	8% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer.
		D6.2	Delivery of EI hardware equipment along with associated accessories.	10%		
		D6.3	Delivery of power supply equipment and batteries along with associated accessories.	5%		
		D6.4A	Delivery of track vacancy detection hardware equipment along with associated accessories for Phase-I Works .	5%		
		D6.4B	Delivery of track vacancy detection hardware equipment along with associated accessories for Complete Works.	10%		
		D6.5	Delivery of signals along with associated accessories.	2%		
		D6.6A	Delivery of prefabricated Signal & Telecom huts along with associated accessories for Phase-I Works.	1%		
		D6.6B	Delivery of prefabricated Signal & Telecom huts along with associated accessories for Complete Works.	2%		
		D6.7	Delivery of balance indoor equipment.	5%		
		D6.8	Delivery of balance outdoor equipment.	5%		
	Installation	D6.9	Installation of all indoor equipment.	10%		Review and Acceptance of installation test report by the engineer.
		D6.10	Installation of all outdoor equipment.	10%		
System acceptance test	D6.11	Delivery and installation of software and system acceptance test.	10%	Review and Acceptance of system acceptance test report by the engineer.		
Earthing and surge protection	D6.12	Installation of earthing and surge protection equipment for complete works.	5%	Review and Acceptance of installation test report and		

					system acceptance test report by the engineer.
	Any other item	D6.13	Any other item required to be supplied, installed and tested for complete works.	5%	Verification, review and/or Approval/Acceptance by the engineer.
			TOTAL	100%	

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-7 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Signaling works between Sasaram and New Kudra stations**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signaling works between Sasaram and New Kudra stations	Delivery of material	D7.1	Delivery of signaling and power cable.	15%	20% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		D7.2	Delivery of EI hardware equipment along with associated accessories.	10%		
		D7.3	Delivery of power supply equipment and batteries along with associated accessories.	5%		
		D7.4A	Delivery of track vacancy detection hardware equipment along with associated accessories for Phase-I Works.	5%		
		D7.4B	Delivery of track vacancy detection hardware equipment along with associated accessories for Complete Works.	10%		
		D7.5	Delivery of signals along with associated accessories.	2%		
		D7.6A	Delivery of prefabricated Signal and Telecom huts along with associated accessories.	1%		
		D7.6B	Delivery of prefabricated Signal & Telecom huts along with associated accessories.	2%		
		D7.7	Delivery of balance indoor equipment.	5%		
	D7.8	Delivery of balance outdoor equipment.	5%			
	Installation	D7.9	Installation of all indoor equipment.	10%		Review and Acceptance of installation test report by the Engineer.
		D7.10	Installation of all outdoor equipment.	10%		
System acceptance test	D7.11	Delivery and installation of software and system acceptance test.	10%	Review and Acceptance of system acceptance test report by the Engineer.		
Earthing and surge protection	D7.12	Installation of earthing and surge protection equipment for complete works.	5%	Review and Acceptance of installation test report and		

					system acceptance test report by the Engineer.
	Any other item	D7.13	Any other item required to be supplied, installed and tested for complete works.	5%	Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%	

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-8 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Signaling works between New Kudra and New Durgauti stations

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Signal ing works betwe en New Kudra and New Durga uti station s	Delivery of material	D8.1	Delivery of signaling and power cable.	15%	28% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		D8.2	Delivery of EI hardware equipment along with associated accessories.	10%		
		D8.3	Delivery of power supply equipment and batteries along with associated accessories.	5%		
		D8.4A	Delivery of track vacancy detection hardware equipment along with associated accessories for Phase-I Works.	5%		
		D8.4B	Delivery of track vacancy detection hardware equipment along with associated accessories for Complete Works.	10%		
		D8.5	Delivery of signals along with associated accessories.	2%		
		D8.6A	Delivery of prefabricated Signal and Telecom huts along with associated accessories for Phase-I Works.	1%		
		D8.6B	Delivery of prefabricated Signal & Telecom huts along with associated accessories for Complete Works.	2%		
		D8.7	Delivery of balance indoor equipment.	5%		
	D8.8	Delivery of balance outdoor equipment.	5%			
	Installation	D8.9	Installation of all indoor equipment.	10%		Review and Acceptance of installation test report by the Engineer.
		D8.10	Installation of all outdoor equipment.	10%		
	System acceptance test	D8.11	Delivery and installation of software and system acceptance test.	10%		Review and Acceptance of system acceptance test report by the Engineer.
Earthing and surge protection	D8.12	Installation of earthing and surge protection equipment for complete works.	5%	Review and Acceptance of installation test report and system		

					acceptance test report by the Engineer.
	Any other item	D8.13	Any other item required to be supplied, installed and tested for complete works.	5%	Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%	

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-9 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Level crossing gates**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Level crossing gates	Delivery of material	D9.1	Delivery of LC gate complete with power supply, batteries, operating panel along with all other associated accessories	25%	5% of contract price of Signaling works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the engineer for each LC gate on prorata basis.
		D9.2	Delivery of interlocking arrangement of LC gate along with all other associated accessories.	30%		
	Installation	D9.3	Installation of LC gate	10%		Review and Acceptance of installation test report by the engineer for each LC gate on prorata basis.
		D9.4	Interlocking of LC gate	10%		
	System acceptance test	D9.5	System acceptance test of non interlocked LC gate.	5%		Review and Acceptance of system acceptance test report by the engineer for each LC gate on prorata basis.
		D9.6	Delivery and installation of software and system acceptance test of interlocked LC gate.	10%		
	Earthing and surge protection	D9.7	Installation of earthing and surge protection equipment for complete works.	5%		Review and Acceptance of installation test report and system acceptance test report by the engineer for each LC gate on prorata basis.
	Any other item	D9.8	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approval/Acceptance by the engineer.
			TOTAL	100%		

Notes

- The Contractor shall ensure that:

- (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-10 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Integrated testing, commissioning and field trial

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Integrated testing, commissioning and field trial	Integrated testing, commissioning and field trial	D10.1	Integrated testing, commissioning and field trial for phase 1 work	30%	2% of contract price of Signaling works	Review and approval of integrated testing, commissioning and field trial report for the phase 1 works by the engineer.
		D10.2	Integrated testing, commissioning and field trial for complete works	30%		Review and Acceptance of integrated testing, commissioning and field trial report for the complete works by the engineer.
		D10.3	Taking over certificate for phase 1 work	20%		Issue of taking over certificate for the Phase 1 Works by the Engineer.
		D10.4	Taking over certificate for complete works	20%		Issue of taking over certificate for the Complete Works by the Engineer.
			total	100%		

Note .: Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-11 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Training**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Training	Training	D11.1	Training of operation and maintenance staff	100%	1% of contract price of Signaling works	On completion of training as per approved training plan and submission of training manuals duly reviewed and/or approved by the engineer.

Note :. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-12 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Contract spares**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Contract spares	Contract spares	D12.1	Delivery of Contract spares along with all other associated accessories for phase-I work	40%	5% of contract price of Signaling works	On complete delivery of contract spares to employer for phase I work as per approved spare part list based on approved BOQ of phase I work duly inspected by the appropriate authority and verified by the engineer.
		D12.2	Delivery of balance Contract spares (other than supplied in phase I) along with all other associated accessories for complete works	60%		On complete delivery of balance Contract spares to employer as per approved spare part list based on approved BOQ of complete works duly inspected by the appropriate authority and verified by the engineer.
			Total	100%		

Note : Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule D-13 (Signaling Works)

**Weightage for Interim Stage Payments
 for Cost Centre
 Test and measuring equipment**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub Cost Centre	Stage Payment of sub-cost centre	Weightage %	Cost	Payment procedure
Test and measuring equipment	Test and measuring equipment	D13.1	Delivery of Test and measuring equipment along with all other associated accessories, operation and maintenance manual, calibration certificate . before start of DLP of Phase-I Works.	100%	2% of contract price of Signaling works	On complete delivery of Test and measuring equipment to employer as per approved list of Test and measuring equipment duly inspected by the appropriate authority and verified by the engineer.

Note .: Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

PRICE SCHEDULE
Schedule –E (Telecommunication Works)

(Sub-clause 14.4, GC)

Apportionment of Contract Price for Payments of Telecommunication Works According to Cost Centers

	S N	Cost Centre	Percentage of Contract Price
	(1)	(2)	(3)
Telecom Works	E1	Design, Management Plans, O&M Manuals, As Built drawings, for Telecom Works	5%
	E2	Telecom works at New Karwandiya station	4%
	E3	Telecom works at Sasaram	4%
	E4	Telecom works at New Kudra station	4%
	E5	Telecom works at New Durgauti station	4%
	E6	Telecom works at Temporary OCC at Mugalsarai	4%
	E7	Telecom works between New Karwandiya station and Sasaram	8%
	E8	Telecom works between Sasaram and New Kudra stations	22%
	E9	Telecom works between New Kudra and New Durgauti stations	28%
	E10	Telecom works between New Durgauti and Durgauti stations	3%
	E11	Integrated Testing & Commissioning and Field Trial	2%
	E12	Training	2%
	E13	Contract spares	5%
	E14	Test and measuring equipment	5%
		Total	100%

The percentage figures as filled in column 3 by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the items given above are fixed.. and payment will be released for different cost centre as per above percentage break-up of contract price. Refer Sub-Clause 14.4 – Particular Conditions of Contract for further details.

Price Schedule E-1 (Telecom Works)

**Weightage for Interim Stage Payments
 for Cost Centre**

Design, Management Plans, O&M Manuals, As Built Documents, for Telecom Works

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weightage %	Cost	Payment procedure
Design, Management Plans, O&M Manuals, As Built Documents, for Telecom Works	Management Plan	E1.1	Project Management Plan, Quality Management Plan, Quality Assurance Plan, Site Safety Plan, Design Plan separately for Complete Works and Phase1 Work.	5%	5% of contract price of Telecom works	Review and/or approval with or without comments by the engineer
		E1.2	Reliability Plan, Maintainability Plan, Interface Management Plan, EMC Management Plan, Procurement, Manufacturing & Delivery Plan, Software Support Plan, Factory Acceptance Testing Plan, Construction and Installation Management Plan, On-site Testing & Commissioning Plan for separately for Complete Works and Phase 1 Work.	5%		
		E1.3	Operation & Maintenance Plan, Training Plan, Spare Parts & Consumable Management Plan, Defect Liability Management Plan, Maintenance Manpower Plan, Trial Run Plan separately for Complete Works And Phase 1 Work.	5%		
	Preliminary Design Documents	E1.4	All Preliminary Design Documents including RAMS Documents for Complete Works.	5%		Review and/or approval with or without comments by the Engineer for all Preliminary Design Documents including RAMS Documents.
		E1.5	All Preliminary Design Documents including RAMS Documents for Phase 1 Work	5%		
	Definite Design Documents	E1.6	All Definite Design Documents including EMC Documents & Interface Specification for Complete Works.	10%		Review and/or approval with or without comments by the Engineer
		E1.7	All Definite Design Documents including EMC Documents & Interface Specification for Phase 1 Works	5%		
		E1.8	All the remaining Definite Design Documents for Complete Works	10%		
		E1.9	All the remaining Definite Design Documents for Phase 1 Work.	5%		
	O&M Manuals	E1.10	O&M Manual for Complete Works	10%		Review and/or approval with or without
		E1.11	O&M Manual for Phase 1 Works	10%		

						comments by the Engineer
As-Built Drawings	E1.12	As-Built Drawings for Complete Works	10%			Review and/or approval with or without comments by the Engineer
	E1.13	As Built Drawings for Phase 1 Work	10%			
Any other document	E1.14	Any other document required to be given as part of the contract	5%			Review and/or approval with or without comments by the Engineer
		TOTAL	100%			

Note :. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-2 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works at New Karwandiya Station**

(Sub-clause 14.4 of GCC)

	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment Procedure
Telecom Works at New Karwandiya Station	Delivery of material	E2.1	Delivery of PIJF Telephone Cables	10%	4% of contract price of Telecom works	On complete delivery of material on contractor's premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E2.2	Delivery of OFC System Hardware along with associated accessories.	8%		
		E2.3	Delivery of Data Networking System Hardware along with associated accessories.	8%		
		E2.4	Delivery of Telephone System Hardware along with associated accessories.	10%		
		E2.5	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E2.6	Delivery of Master Clock System Hardware alongwith associated accessories.	2%		
		E2.7	Delivery of VHF communication System Hardware alongwith associated accessories.	2%		
		E2.8	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E2.9	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E2.10	Installation of all equipment for phase 1.	10%		Review and Acceptance of Installation Test Report by the Engineer.
		E 2.11	Installation of all indoor and outdoor equipment for complete works.	5%		
	System Acceptance Test	E 2.12	Delivery and installation of software and System Acceptance Test for phase 1.	10%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E 2.13	Delivery and installation of software and system acceptance test for phase 2.	5%		
	Earthing and Surge Protection	E 2.14	Installation of surge protection equipment for complete works.	5%		Review and Acceptance of Installation Test Report and System Acceptance Test Report by the Engineer.
		E2.15	Installation of surge protection equipment for phase1 works.	5%		

	Any other item	E 2.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, Review and/or Approval/Acceptance by the engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-3 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works at Sasaram Station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment Procedure
Telecom Works at Sasaram Station	Delivery of material	E3.1	Delivery of PIJF Telephone Cables	10%	4% of contract price of Telecom works	On complete delivery of material on contractor's premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E3.2	Delivery of OFC System Hardware along with associated accessories.	10%		
		E3.3	Delivery of Data Networking System Hardware along with associated accessories.	10%		
		E3.4	Delivery of Telephone System Hardware along with associated accessories.	10%		
		E3.5	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E3.6	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E3.7	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E3.8	Installation of all equipment for phase 1.	10%		Review and Acceptance of Installation Test Report by the Engineer.
		E3.9	Installation of all indoor and outdoor equipment for complete works.	5%		
	System Acceptance Test	E3.10	Delivery and installation of software and System Acceptance Test for phase 1.	10%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E 3.11	Delivery and installation of software and system acceptance test for phase 2.	5%		
	Earthing and Surge Protection	E 3.12	Installation of surge protection equipment for complete works.	5%		Review and Acceptance of Installation Test Report and System Acceptance Test Report by the Engineer.
		E 3.13	Installation of surge protection equipment for phase1 works.	5%		
	Any other item	E3.14	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approva/Aceptance by the engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-4 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works at New Kudra Station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment Procedure
Telecom Works at New Kudra Station	Delivery of material	E4.1	Delivery of PIJF Telephone Cables	10%	4% of contract price of Telecom works	On complete delivery of material on contractor's premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E4.2	Delivery of OFC System Hardware along with associated accessories.	8%		
		E4.3	Delivery of Data Networking System Hardware along with associated accessories.	8%		
		E4.4	Delivery of Telephone System Hardware along with associated accessories.	10%		
		E4.5	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E4.6	Delivery of Master Clock System Hardware alongwith associated accessories.	2%		
		E4.7	Delivery of VHF communication System Hardware alongwith associated accessories.	2%		
		E4.8	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E4.9	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E4.10	Installation of all equipment for phase 1.	10%		Review and Acceptance of Installation Test Report by the Engineer.
		E4.11	Installation of all indoor and outdoor equipment for complete works.	5%		
	System Acceptance Test	E4.12	Delivery and installation of software and System Acceptance Test for phase 1.	10%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E4.13	Delivery and installation of software and System Acceptance Test for Complete Works.	5%		
	Earthing and Surge Protection	E 4.14	Installation of surge protection equipment for complete works.	5%		Review and Acceptance of Installation Test Report and

		E 4.15	Installation of surge protection equipment for phase1 works.	5%		System Acceptance Test Report by the Engineer.
	Any other item	E 4.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-5 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works at New Durgauti Station**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment Procedure
Telecom Works at New Durgauti Station	Delivery of material	E5.1	Delivery of PIJF Telephone Cables	10%	4% of contract price of Telecom works	On complete delivery of material on contractor's premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E5.2	Delivery of OFC System Hardware along with associated accessories.	8%		
		E5.3	Delivery of Data Networking System Hardware along with associated accessories.	8%		
		E5.4	Delivery of Telephone System Hardware along with associated accessories.	10%		
		E5.5	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E5.6	Delivery of Master Clock System Hardware alongwith associated accessories.	2%		
		E5.7	Delivery of VHF communication System Hardware alongwith associated accessories.	2%		
		E5.8	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E5.9	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E5.10	Installation of all equipment for Phase 1 Works.	10%		Review and Acceptance of Installation Test Report by the Engineer.
		E5.11	Installation of all indoor and outdoor equipment for Complete Works.	5%		
	System Acceptance Test	E5.12	Delivery and installation of software and System Acceptance Test for Phase 1 Works.	10%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E5.13	Delivery and installation of software and system acceptance test for Complete Works.	5%		
	Earthing and Surge Protection	E5.14	Installation of surge protection equipment for Complete Works.	5%		Review and Acceptance of Installation Test Report and

		E5.15	Installation of surge protection equipment for Phase1 Works.	5%		System Acceptance Test Report by the Engineer.
	Any other item	E5.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-6 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works at Temporary OCC at Mugalsarai**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment Procedure
Telecom Works at Temporary OCC at Mugalsarai	Delivery of material	E6.1	Delivery of PIJF Telephone Cables	10%	4% of contract price of Telecom works	On complete delivery of material on contractor's premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E6.2	Delivery of OFC System Hardware along with associated accessories.	8%		
		E6.3	Delivery of Data Networking System Hardware along with associated accessories.	8%		
		E6.4	Delivery of Telephone System Hardware along with associated accessories.	10%		
		E6.5	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E6.6	Delivery of Master Clock System Hardware alongwith associated accessories.	4%		
		E6.8	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E6.9	Delivery of balance Indoor and Outdoor equipment.	5%		
		Installation	E6.10	Installation of all equipment for Phase 1 Works.		
	E 6.11		Installation of all indoor and outdoor equipment for Complete Works.	5%		
	System Acceptance Test	E6.12	Delivery and installation of software and System Acceptance Test for Phase 1 Wroks.	10%	Review and Acceptance of System Acceptance Test Report by the Engineer.	
		E6.13	Delivery and installation of software and system acceptance test for Complete Works.	5%		
	Earthing and Surge Protection	E6.14	Installation of surge protection equipment for Complete Works.	5%	Review and Acceptance of Installation Test Report and System Acceptance Test Report by the Engineer.	
		E6.15	Installation of surge protection equipment for Phase1 Works.	5%		
	Any other item	E6.16	Any other item required to be supplied, installed and tested for Complete Works.	5%	Verification, review and/or Approval/Acceptance by the engineer.	

			TOTAL	100%		
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Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-7 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works between New Karwandiya and Sasaram stations**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment procedure
Telecom Works between New Karwandiya and Sasaram stations	Delivery of material	E7.1	Delivery of Optical Fibre Cable and Permanently Lubricated HDPE Duct.	15%	8% of contract price of Telecom works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E7.2	Delivery of Jelly Filled Telecom Quad Cable and PIJF Telephone Cable.	5%		
		E7.3	Delivery of OFC System Hardware along with associated accessories.	10%		
		E7.4	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E7.5	Delivery of 5 Watt VHF Handheld Transceiver alongwith Charger and other associated accessories.	2%		
		E7.6	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E7.7	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E7.8	Laying of Cables for phase1 works.	9%		Review and Acceptance of Installation Test Report by the Engineer.
		E7.9	Laying of Cables for complete works.	9%		
		E7.10	Installation of all Indoor and Outdoor equipments for phase1 works.	5%		
		E7.11	Installation of all Indoor and Outdoor equipments for complete works.	5%		
	System Acceptance Test	E7.12	Delivery and installation of Software and System Acceptance Test for phase1 works.	5%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E7.13	Delivery and installation of Software and System Acceptance Test for complete works.	5%		
	Earthing and Surge Protection	E7.14	Installation of Surge Protection Equipment for phase1 works.	5%		Review and Acceptance of Installation Test Report And

		E7.15	Installation of Surge Protection Equipment for complete works.	5%		System Acceptance Test Report by the Engineer.
	Any other item	E7.16	Any other item required to be supplied, installed and tested for complete works.	5%		Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-8 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre**

Telecom Works between Sasaram and New Kudra stations

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment procedure
Telecom Works between Sasaram and New Kudra stations	Delivery of material	E8.1	Delivery of Optical Fibre Cable and Permanently Lubricated HDPE Duct.	15%	22% of contract price of Telecom works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E8.2	Delivery of Jelly Filled Telecom Quad Cable and PIJF Telephone Cable.	5%		
		E8.3	Delivery of OFC System Hardware along with associated accessories.	10%		
		E8.4	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E8.5	Delivery of 5 Watt VHF Handheld Transceiver alongwith Charger and other associated accessories.	2%		
		E8.6	Delivery of 48 V DC Battery Backup System Hardware alongwith associated accessories.	5%		
		E8.7	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E8.8	Laying of Cables for phase1 works.	9%		Review and Acceptance of Installation Test Report by the Engineer.
		E8.9	Laying of Cables for complete works.	9%		
		E8.10	Installation of all Indoor and Outdoor equipments for phase1 works.	5%		
		E8.11	Installation of all Indoor and Outdoor equipments for complete works.	5%		
	System Acceptance Test	E8.12	Delivery and installation of Software and System Acceptance Test for Phase1 Works.	5%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E8.13	Delivery and installation of Software and System Acceptance Test for Complete Works.	5%		
	Earthing and Surge Protection	E8.14	Installation of Surge Protection Equipment for Phase1 Works.	5%		Review and Acceptance of Installation Test Report And System Acceptance Test Report by the Engineer.
		E8.15	Installation of Surge Protection Equipment for Complete Works.	5%		
	Any other item	E8.16	Any other item required to be supplied, installed and tested for Complete Works.	5%		Verification, review and/or Approval/Accept

						ance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-9 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Telecom Works between New Kudra and New Durgauti stations**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment procedure
Telecom Works between New Kudra and New Durgauti stations	Delivery of material	E9.1	Delivery of Optical Fibre Cable and Permanently Lubricated HDPE Duct.	15%	28% of contract price of Telecom works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E9.2	Delivery of Jelly Filled Telecom Quad Cable and PIJF Telephone Cable.	5%		
		E9.3	Delivery of OFC System Hardware along with associated accessories.	10%		
		E9.4	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E9.5	Delivery of 5 Watt VHF Handheld Transceiver alongwith Charger and other associated accessories.	2%		
		E9.6	Delivery of 48 V DC Battery Backuop System Hardware alongwith associated accessories.	5%		
		E9.7	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E9.8	Laying of Cables for phase1 works.	9%		Review and Acceptance approval of Installation Test Report by the Engineer.
		E9.9	Laying of Cables for complete works.	9%		
		E9.10	Installation of all Indoor and Outdoor equipments for phase1 works.	5%		
		E9.11	Installation of all Indoor and Outdoor equipments for complete works.	5%		
	System Acceptance Test	E9.12	Delivery and installation of Software and System Acceptance Test for Phase1 Works.	5%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E9.13	Delivery and installation of Software and System Acceptance Test for Complete Works.	5%		
	Earthing and Surge Protection	E9.14	Installation of Surge Protection Equipment for Phase1 Works.	5%		Review and Acceptance approval of Installation Test

		E9.15	Installation of Surge Protection Equipment for Complete Works.	5%		Report And System Acceptance Test Report by the Engineer.
	Any other item	E9.16	Any other item required to be supplied, installed and tested for Complete Works.	5%		Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-10 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre**

Telecom Works between New Durgauti and Durgauti stations

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weight age %	Cost	Payment procedure
Telecom Works between New Durgauti and Durgauti stations	Delivery of material	E10.1	Delivery of Optical Fibre Cable and Permanently Lubricated HDPE Duct.	15%	3% of contract price of Telecom works	On complete delivery of material on contractor premises at site as per approved BOQ duly inspected by the appropriate authority and verified by the Engineer.
		E10.2	Delivery of Jelly Filled Telecom Quad Cable and PIJF Telephone Cable.	5%		
		E10.3	Delivery of OFC System Hardware along with associated accessories.	10%		
		E10.4	Delivery of Direct Line & Emergency Communication System Hardware along with associated accessories.	5%		
		E10.5	Delivery of 48 V DC Battery Backup System Hardware alongwith associated accessories.	5%		
		E10.6	Delivery of balance Indoor and Outdoor equipment.	5%		
	Installation	E10.7	Laying of Cables for phase1 works.	10%		Review and Acceptance of Installation Test Report by the Engineer.
		E10.8	Laying of Cables for complete works.	10%		
		E10.9	Installation of all Indoor and Outdoor equipments for phase1 works.	5%		
		E10.10	Installation of all Indoor and Outdoor equipments for complete works.	5%		
	System Acceptance Test	E10.11	Delivery and installation of Software and System Acceptance Test for Phase1 Works.	5%		Review and Acceptance of System Acceptance Test Report by the Engineer.
		E10.12	Delivery and installation of Software and System Acceptance Test for Complete Works.	5%		
	Earthing and Surge Protection	E10.13	Installation of Surge Protection Equipment for Phase1 Works.	5%		Review and Acceptance of Installation Test Report And System Acceptance Test Report by the Engineer.
		E10.14	Installation of Surge Protection Equipment for Complete Works.	5%		
	Any other item	E10.15	Any other item required to be supplied, installed and tested for Complete Works.	5%		Verification, review and/or Approval/Acceptance by the Engineer.
			TOTAL	100%		

Notes

1. The Contractor shall ensure that:
 - (i) On the payment for supply of materials which shall be against an INDEMNITY BOND, the materials shall be deemed to be property of DFCC and Contractor shall not remove these without prior approval of the Engineer and shall also take due care of the same against theft/ damage etc. at no extra cost.
 - (ii) Record of receipt and use of materials is maintained by the Contractor and made available for inspection by the Engineer as and when these may be required.
2. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-11 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre**

Integrated Testing & Commissioning and Field Trial

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weightage %	Cost	Payment procedure
Integrated Testing & Commissioning and Field Trial	Integrated Testing & Commissioning and Service Trials Trial	E11.1	Integrated Testing & Commissioning, Reliability Demonstration Test and Service Trials for Phase-1 Works	30%	2% of contract price of Telecom works	Review and Acceptance of Integrated Testing & Commissioning Report by the Engineer.
		E11.2	Integrated Testing & Commissioning, Reliability Demonstration Test and Service Trials for Complete Works	30%		
		E11.3	Taking Over Certificate for Phase-I Works	20%		Issue of Taking Over Certificate for the Phase I Works by the Engineer.
		E11.4	Taking Over Certificate for Complete Works.	20%		Issue of Taking Over Certificate for Complete Works by the Engineer.
			TOTAL			100%

Note : Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-12 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Training**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weightage %	Cost	Payment procedure
Training	Training	E12.1	Training of Employer's Staff	100%	2% of contract price of Telecom Works	On completion of training as per approved Training Plan and submission of Training Manuals duly reviewed and/or approved by the Engineer.

Note : Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-13 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Contract Spares**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weightage %	Cost	Payment procedure
Contract Spares	Contract Spares	E13.1	Delivery of Contract Spares along with all other associated accessories for Phase I Works.	40%	5% of contract price of Telecom works	On delivery of Contract Spares to Employer as per approved List of Contract Spares for Phase I Works based on approved BOQ of Phase I Works, duly inspected by the appropriate authority and verified by the Engineer.
		E13.2	Delivery of balance Contract Spares (other than supplied in Phase I) along with all other associated accessories for Complete Works.	60%		On complete delivery of balance Contract Spares to Employer as per approved List of Contract Spares for Complete Works based on approved BOQ of Complete Works, duly inspected by the appropriate authority and verified by the Engineer.
			Total	100%		

Notes. Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.

Price Schedule E-14 (Telecom Works)

**Weightage for Stage Payments
 for Cost Centre
 Special Tools and Test Equipment**

(Sub-clause 14.4 of GCC)

Cost Centre	Item of Work	Sub-Cost Centre	Stage to be completed to qualify for Stage Payment of Sub-Cost Centre	Weightage %	Cost	Payment Procedure
Special Tools and Test Equipment	Special Tools and Test Equipment	E14.1	Delivery of Special Tools and Test Equipment along with all other associated accessories, Operation & Maintenance Manual, Calibration Certificate, before start of DLP of Phase-I Works.	100%	5% of contract price of Telecom works	On complete delivery of Special Tools and Test Equipment to Employer as per approved List of Special Tools and Test Equipment duly inspected by the appropriate authority and verified by the Engineer.

Note : Stage payment will be eligible on completion of the respective stage of work and approval to this effect by the Engineer.