POWER GRID COMPANY OF BANGLADESH LIMITED (PGCB)

Barapukuria-Bogura-Kaliakoir 400kV Line Project

Design, Supply, Installation, Testing & Commissioning of Barapukuria-Bogura400kV Double Circuit Transmission Lines on turnkey basis (Package-1, Lot-1)

(ICB No.PGCB/EXIM BANK/LOC-2/400kV/TL/BAR-BOG)

ADDENDUM NO. 1

(Date: July 29, 2020)

Following revisions/changes are made in the Bidding Document which will form part of the Bidding Document:

Volume 1 of 3

1. Section 4- Bidding Forms, Clause-6.9: Form EXP-2: Contracts of Similar Size & Nature

   (i) Page 4-30

   The text that "Description of the similarity in accordance with Criterion 2.4.1 of Section 3" is replaced with the text "Description of the similarity in accordance with Criterion 2.4.2 of Section 3".

2. Section-2: Bid Data Sheet, Page 2-6, Clause 19.6

   The text "The unit price quoted by the Bidder shall be fixed" is replaced with the text "The price quoted by the Bidder shall be Adjustable."

3. Section-8: Special Conditions of Contract, Page 8-5, Clause 14 (Taxes & Duties)

   GCC Sub-clause 14.1, 14.2, 14.3 & 14.4 is replaced with the following Sub-clause 14.1:

   "14.1: As per the Dollar Credit Line Agreement dated March 09, 2016 between Exim Bank and the Government of the People's Republic of Bangladesh, all eligible goods and services including works, shall be exempt from all kinds of taxes and duties, of any nature whatsoever levied in Bangladesh including all value added taxes import/custom duties, special levies and social security contributions for temporary employees deputed by the Seller in relation to the execution of the Contract of Bangladesh, except income tax as referred to in the relevant provisions contained in the double Taxation Avoidance Agreement (DTAA) between India and Bangladesh. Therefore, the rates, prices quoted by the Tenderer and total Tender price submitted by the Tenderer for construction phase work should be exclusive of any kind of taxes and duties of any nature, levied in Bangladesh. The income tax [whenever paid by the Tenderer] shall be paid out of its own funds and shall not be paid out of the LOC funds. The Employer shall be responsible to arrange for all exemptions required by the contractor from the relevant authorities in Bangladesh. If however, the Contractor is required to pay any such aforementioned taxes or duties [except income tax as per the aforementioned provision], the same shall be reimbursed by the Employer. The Contractor shall be entirely responsible for all kinds of taxes, duties, fees, levies, and such other charges to be paid under the Applicable Law imposed outside Bangladesh."

4. Section-8: Special Conditions of Contract, Page 8-5, Clause 14.2(a) (Taxes & Duties)

   Clause 14.2(a) is replaced with the following:

   "Clause 14.2(a): "As per the Dollar Credit Line Agreement dated March 09, 2016 between Exim Bank and the Government of the People's Republic of Bangladesh, eligible goods and Services including works, shall be exempt from all kinds of taxes and duties except income tax as referred to in the relevant provisions contained in the Double Taxation Avoidance Agreement (DTAA) between India and Bangladesh, of any nature whatsoever levied in the Bangladesh including all value added taxes, import/custom duties, special levies and social security contributions for temporary employees deputed by the seller in relation to the execution of the Contract in Bangladesh."

5. Section 9: Contract Forms, Appendix-5, Page-9-19

The text "The following Subcontractors and Manufacturers are approved for carrying out the item of the facilities indicated. Where more than one Subcontractor is listed, the Employer is free to choose between them" is replaced with the text "The following Subcontractors and Manufacturers are approved for carrying out the item of the facilities indicated. Where more than one Subcontractor is listed, the Contractor is free to choose between them"

Volume 2 of 3

1. **Section 7. Foundations, Page 7-5, Clause No. 7.1.4.6: River Crossing Foundations**

Clause No. 7.1.4.6: River Crossing Foundations is replaced with the following:

"7.1.4.6: River Crossing Foundations

The location of both river crossing tower, anchor tower and any other tower near the river, should be finalized based on hydro and geo-morphological study of the selected rivers (See **APPENDIX 7.A9**). If river crossing tower, anchor tower and any other tower/towers go into the river due to shifting of river in future, than foundation of those towers shall be treated as foundations on midstream of river and foundation of those towers shall be river crossing foundation. If any other type of tower/towers is/are required to be spotted near/parallel to any river, then based on morphological study foundation of those tower/towers shall be treated same as described above.

Foundation of these types of tower shall be pile supported. The pile shall be designed considering an unsupported height equal to depth of river bed from (HFL) plus allowance for scour depth. Skin friction for unsupported height shall be considered zero in calculating the pile capacity in this regard. All required data to calculate the scour depth shall be collected and managed by bidder themselves. Scour depth shall be calculated as per IRC 78 (2014 or latest version) guidelines (**APPENDIX 7.A10.)**

During design of such foundations, ship impact should be considered **(APPENDIX7.A11).** Bangladesh/International codes in this regard should be followed. If permanent casing is required for pile casting upto any depth, the contractor shall be considered its cost within the quoted price. For any reason, no extra payment shall be made beyond the quoted price of river crossing tower foundation.

Top of chimney of this type of tower shall be at least 450mm above highest flood level. The Contractor has to assess the river erosion and has to perform the foundation works within the quoted price even if the tower location found under water during execution stage."

2. **Section 7. Foundations**

The following Appendixes are added:

APPENDIX 7.A9: Morphological Study

FOR THE FOLLOWING RIVERS MORPHOLOGICAL STUDY HAVE TO BE CONDUCTED:

Name of transmission line	Name of river	Approximate width of river (m)
Barapukuria-Bogura 400kV TL	Not applicable	Not applicable

APPENDIX 7.A10: Calculation of Scour Depth

For determining the scouring depth for alluvial river following standard/guideline need to be used:

Name of transmission line	Name of river	Standard/Guideline	Consideration Requirement
Barapukuria-Bogura 400kV TL	Not applicable	IRC 78 (2014 or latest)	No

APPENDIX 7.A11: Ship Impact

The requirement of considering ship impact for the foundation design of river crossing towers are as follows:

Name of transmission line	Name of river	Approximate width of river (m)	Ship Impact consideration requirement
Barapukuria-Bogura 400kV TL	Not applicable	Not applicable	No

3. **Section 9. Insulator**

   i. **Annex 9-2: Electrical & Mechanical Characteristics, Page 9-14**
   Table-1: 400kV Line (Overland Portion)

   The row "Size of Disc Insulator" is deleted.

Volume 3 of 3

1. **Sub-clause 2.2.1: 400kV Towers-For Quad ACCC Dhaka Conductor (ACSR Finch) equivalent, Page-22**

   In the table, column 4D1(Upto 25m extension) is replaced by 4D1(0m to 15m body extension) and column 4D1 (above 15m to 30m body extension) & 4D1 (above 30m to 40m body extension) are added in the table.

2. **Price Schedule No.4, Page 4-(1-3)**

   Page no. 4-1, 4-2 & 4-3 are replaced with revised page no. 4-1(Rev.1), 4-2(Rev.1) & 4-3(Rev.1) **[Attachment-1]**

All other terms and conditions of the bidding document shall remain unaltered.

Enclosure: As stated

Attachment-1

Design, Supply, Installation, Testing Commissioning of the Barapukuria-Bogura 400 kV Double Circuit Transmission Line on Turnkey Basis (Package-1, Lot-1)

Item	Description	Unit	Quantity	Unit Price1	Total Price1
				Foreign Currency [USD]	Foreign Currency [USD]
1	2	3	4	5	6 = 4 x 5
	Schedule No. 4 Installation and Other Services				
1	**Survey and soil investigation works**				
1.1	**Survey Work**				
1.1.1	Check survey in accordance with the requirements of the technical specification, incl. Full ground survey with change of route, if any, tower plotting and preparation and submission of route maps, profile drawings, SIMM documents, etc.	Km	120		
1.1.2	Route clearance in accordance with requirements of the technical specification including payment of compensation for crops, trees, houses etc. and all other type of damage compensation.	Km	120		
1.2	**Geotechnical Investigations incl. taking samples, logging and lab testing**				
1.2.1	Boreholes for geotechnical investigation, incl. laboratory test, borehole logs, sampling and interpretive report as per geotechnical specification				
(a)	Level 2	borehole	2		
(b)	Level 4	borehole	NIL		
1.2.2	Soil resistivity tests (one per tower)	unit	320		
2	**Foundations for towers including all setting out, Concrete, Reinforcement, Excavation, Pumping, Stub-Setting, Geotechnical Investigation (Level 2), Shuttering, Leveling, Timbering, supply & Installation of foundation steelwork, Earthing Materials,Backfilling, approved Protective Coating & site clearing etc.**				
2.1	**Tower type "4DL"**				
2.1.1	Pile Foundation for Soil Category-2	per tower	80		
2.1.2	Pile Foundation for Soil Category-3	per tower	95		
2.1.3	Pile Foundation for Soil Category-4	per tower	45		
2.1.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	15		
2.1.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	15		
2.2	**Tower type "4D1 (0m to 15m body extension)"**				
2.2.1	Pile Foundation for Soil Category-2	per tower	5		
2.2.2	Pile Foundation for Soil Category-3	per tower	7		
2.2.3	Pile Foundation for Soil Category-4	per tower	3		
2.2.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	2		

Item	Description	Unit	Quantity	Unit Price1	Total Price1
				Foreign Currency [USD]	Foreign Currency [USD]
1	2	3	4	5	6 = 4 x 5
	Schedule No. 4 Installation and Other Services				
2.2.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	2		
2.3	**Tower type "4D1(above 15m to 30m body extension)"**				
2.3.1	Pile Foundation for Soil Category-2	per tower	2		
2.3.2	Pile Foundation for Soil Category-3	per tower	4		
2.3.3	Pile Foundation for Soil Category-4	per tower	1		
2.3.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	1		
2.3.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	1		
2.4	**Tower type "4D1(above 30m to 40m body extension)"**				
2.4.1	Pile Foundation for Soil Category-2	per tower	1		
2.4.2	Pile Foundation for Soil Category-3	per tower	1		
2.4.3	Pile Foundation for Soil Category-4	per tower	1		
2.4.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	NIL		
2.4.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	NIL		
2.5	**Tower type "4D25"**				
2.5.1	Pile Foundation for Soil Category-2	per tower	4		
2.5.2	Pile Foundation for Soil Category-3	per tower	5		
2.5.3	Pile Foundation for Soil Category-4	per tower	3		
2.5.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	2		
2.5.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	2		
2.6	**Tower type "4D45"**				
2.6.1	Pile Foundation for Soil Category-2	per tower	3		
2.6.2	Pile Foundation for Soil Category-3	per tower	5		

Item	Description	Unit	Quantity	Unit Price1	Total Price1
				Foreign Currency [USD]	Foreign Currency [USD]
1	2	3	4	5	6 = 4 x 5
	Schedule No. 4 Installation and Other Services				
2.6.3	Pile Foundation for Soil Category-4	per tower	2		
2.6.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	2		
2.6.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	2		
2.7	**Tower type "4DT6"**				
2.7.1	Pile Foundation for Soil Category-2	per tower	2		
2.7.2	Pile Foundation for Soil Category-3	per tower	3		
2.7.3	Pile Foundation for Soil Category-4	per tower	2		
2.7.4	Pile Foundation (1 meter raised chimney) for any soil category	per tower	1		
2.7.5	Pile Foundation (2 meter raised chimney) for any soil category	per tower	1		
3	**Erection of 400kV double circuit towers complete with all stubs, nuts, bolts, locking nuts, washers, phase conductor and earthwire swivels/shackles, step bolts, tower notice and identification plates, ACDs, ptotective coating, earthing etc.**				
3.1	**Tower type "4DL"**				
3.1.1	Tower type 4DL+0m	each	70		
3.1.2	Tower type 4DL+1.5 m	each	25		
3.1.3	Tower type 4DL+3 m	each	50		
3.1.4	Tower type 4DL+4.5 m	each	30		