

SCOPE OF WORK (SOW)

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1. GENERAL

Parbati Koldam Transmission Company Limited (PKTCL) has been awarded Communication scheme for implementation of "Supply and installation of 24 Fiber OPGW on PKTCL lines for providing redundant communication for Parbati Pooling (Banala) (PG) S/s, Parbati-II (NHPC) & Parbati-III" ("**Project**") approved as Communication Scheme in the 20th meeting of NCT held on 25.06.2024.

1.1. Associated Communication System:

The following communication system is envisaged under the scheme:

- One (1) no. OPGW cable containing 24 Fiber (24F) by replacing one (1) number Earth wire or Two (2) no. OPGW cable containing 24 Fibers (24F) (depending on the common D/c line portion of 2 S/c transmission lines wherever applicable) in live line condition.

2. SCOPE OF WORK

The scope of work shall cover following:

Survey, planning, design, engineering, supply, testing at manufacturer's works, transportation, unloading and delivery at site including insurance & storage, supervision of erection/installation, installation of OPGW and its accessories in live line condition including all associated works, splicing, termination, testing, training, and demonstration for acceptance, commissioning and documentation for the Communication System defined below:

I. Fiber Optic Cabling and associated items

- a) OPGW including all associated hardware accessories & fittings
- b) Fiber Optic Approach Cable including installation hardware
- c) Fiber Optic Distribution Panels (FODP) & Joint Box
- d) Supply of spares
- e) All other associated work/items described in the technical specifications.

The existing earthwire along with its hardware & fittings shall be dismantled & taken away by the Contractor on installation of OPGW. The Contractor shall quote the buyback price for the dismantled earth wire / OPGW (along with hardware fittings & accessories)."

Standard OPGW designs are to be used for various voltage levels & wind zones of transmission lines that are mentioned at Section-02 of Technical Specifications. In case of constraints in adopting standard design for any of the transmission line(s) or for any specific sections such as higher spans (>600m), Valley crossings, snow covered sections or for other voltage levels & wind zones etc., the Contractor may propose customized design(s) during detailed engineering to meet the requirement.

Mostly, the OPGW Cable under this specification shall be installed under live line conditions, i.e. with all circuits of the transmission line charged to their voltage. Installation The bill of quantities for the same is specified in the appendices accordingly. However, the actual quantities for the requirement may vary during implementation which shall be finalized after detailed survey. The Contractor has to carry out the detailed survey and collect the required data for preparation of OPGW BOQ. Existing Aviation Globules are to be removed and reinstalled from earth wire to OPGW in live line conditions wherever applicable during OPGW installation.

All other associated works/items described in the technical specifications for a viable and fully functional communication network.

The above scope of work is indicative, and the detailed scope of work is given in the Technical Specification (Volume-II) of the Bidding Documents.

3. BID PRICE SCHEDULE:

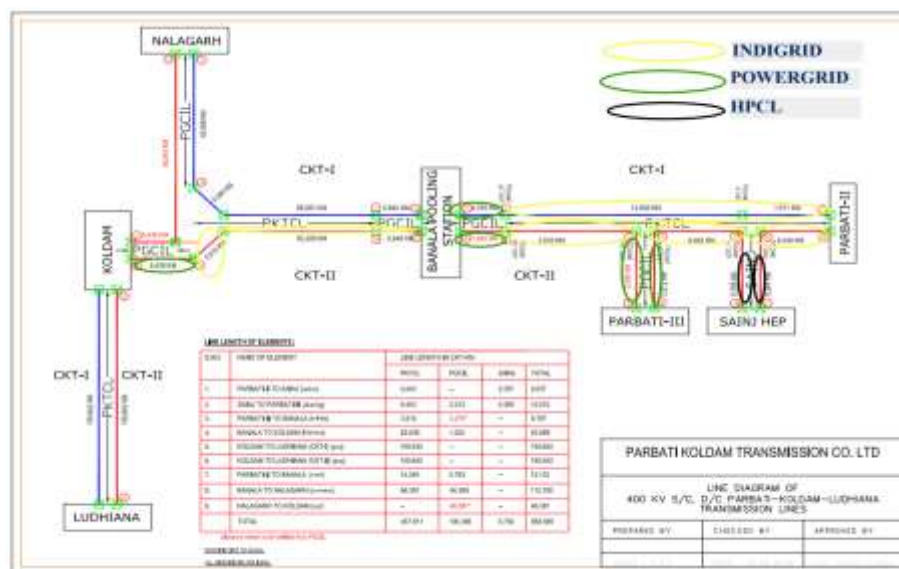
The Bid Price Schedule is attached separately in Volume-III.

4. PHYSICAL AND OTHER PARAMETERS

4.1. Details of the Transmission Line - The details of the transmission line are indicated below:

Name of Transmission Line	Originating Location	Terminating Location	Line Length (KM)
Parbati II to Sainj LILO Point	Gantry Parbati-II	AP 1	0.240
Sainj LILO Point to Parbati-III LILO Point	AP 1A	AP 24A	9.403
Parbati-III LILO Point – Parbati Pooling (Banala)	AP 24B	AP 33	3.518
Parbati-II - Parbati Pooling (Banala)	Parbati-II S/s	Banala S/s	14.349 (1.511 + 12.838)
Parbati Pooling (Banala) – Koldam (NTPC)	AP 34	AP 193/0	62.636 (62.226+0.410)

Total – 90.146 kms (approx.)



4.2. Access to Site -

PKTCL will provide the requisite support to the successful Bidder to access to the site/locations for performing the Scope of Work.

The Contractor shall be responsible for planning and conducting its operations and those of its sub-contractors so that neither the Contractor nor any of its sub-contractor shall (a) enter upon lands (other than the designated Site) or waterbodies in their natural state unless authorized by the Project Manager and or appropriate person; (b) close or obstruct any utility installation, highway, waterway, harbor, road or other property unless applicable permits are obtained and authorized by the Project Manager and or appropriate person; or (c) disrupt or otherwise interfere with the operation of any portion of any pipeline, telephone, conduit or electric transmission line, ditch, navigational aid, dock or structure unless otherwise specifically authorized by the appropriate Person.

5. DIFFERENT SECTIONS OF TECHNICAL SPECIFICATION

For the purpose of scope of work, technical specification shall consist of following sections along with associated appendices, and they should be read in conjunction with each other.

1. Section-01-General
2. Section-02-OPGW
3. Section-07-Testing
4. Section-08-Training and support services
5. Section-09-Documentation
6. Section-10-Project Management

6. SPECIFIC REQUIREMENT

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----- End of Scope of Work -----

Annexure-I
Mandatory Spare Parts

{Not Applicable}

Annexure-II
Condition Monitoring Instruments

{Not Applicable}