

## Section 8. Particular Specifications

### 8.0 Acceptance Tests:

Acceptance tests will be divided into two parts. One is Provisional Acceptance Test (PAT) and another is Final Acceptance Test (FAT).

### 8.1 Provisional Acceptance Test (PAT):

**8.1.1** Before acceptance of the installed OFC network system, BTCL PAT team shall carry out, on site, detail tests of the finished works and related supplied goods such as DWC duct, Man-Hole/ Hand-Hole etc. to ascertain their technical and other specifications, inventory checking of the work, section by section testing of laid OFC etc. The PAT team will also check whether the work has been performed as per the specifications mentioned in the tender document. Such tests and checking shall be termed as “Provisional Acceptance Test (PAT)”. Prior to the commencement of such tests, the Contractor shall submit a proposed procedure for the PAT to be subsequently passed by BTCL. PAT team will be formed with the approval of the Managing Director, BTCL. The PAT will be done by the PAT team of BTCL and Contractor’s Engineers jointly.

**8.1.2** On completion of installation and self-testing of any Section or complete OSP work, the Bidder shall submit 3(three) copies of self-test results to BTCL and will offer PAT for that Section/ complete works. BTCL shall start such tests within one month after receipt of the request. The Bidder may, upon agreement by both parties, offer PAT for any part or parts of the total system. BTCL may also ask the Bidder for partial PAT

**8.1.3** The Bidder shall be totally responsible for arrangement of all equipment, consumables, test gears and measuring equipment required for the PAT. All costs for this service shall be quoted.

Whereas the Bidder’s Engineer shall be liable to make necessary arrangement to complete any kind of possible tests for asserting the specifications during the PAT.

**8.1.4** During these Tests, the Bidder has to provide per diem allowance to PAT Engineers as follows:

- a) Number of BTCL’s PAT Engineers : total 1(one) teams, each team maximum 3 (three) persons.
- b) Number of days allowed for per diem charge: 10( ten)working days per team.
- c) Per diem charge to BTCL’s PAT Engineers : Taka 1000 (one thousand) per person per day
- d) Other facilities : Other facility related to PAT

However, the Bidder shall note that, if necessary, any or all PAT can continue for more than the above scheduled period; but, in such case, the Bidder shall not be liable to pay per diem for more than 30 (thirty) man-days.

**8.1.5** After satisfactory completion of PAT of any Section, payment for the works of that Section may be made to the Contractor according to the payment terms & conditions of this tender. Based on the recommendation of the PAT team, the Project Director may issue PAC for that Section.

## **8.2 Final Acceptance Test (FAT):**

**8.2.1** After completion of the PAT, the Engineers of the Bidder will take prompt necessary steps to remove all types of defects/faults of the work and replace all types of faulty goods/materials at the Contractor's own cost. At the end of the Performance Guarantee Period, the overall performance of the works and related supplied goods/materials will be reviewed and this review shall be termed as "Final Acceptance Test (FAT)". FAT team will be formed by concerned official with the approval of Managing Director, BTCL.

**8.2.2** The review shall include (but not limited to) the required working reliability and performance standards of the goods/materials to meet the tender specifications. The Contractor's responsibility is to resolve all shortcomings mentioned in PAT reports and to remove of all pending & outstanding faults or shortages encountered during the Performance Guarantee Period. When this FAT becomes due, the Contractor shall make an official request to BTCL for starting the FAT and BTCL shall start the FAT within one month of receiving the request from.

**8.2.3** The Contractor shall be responsible for arrangement of all equipment, consumables, test gears and measuring equipment required (if any) for such review tests. All costs for materials and service (if any) shall be quoted. Based on the recommendation of the FAT team, the Director (Development & Coordination) may issue FAC.

## **8.3 Payments:**

All payments shall be made through irrevocable Letter of Credit (L/C) or through A/C payee cheque. As per Clause GCC-65, the Project Director shall pay the Contractor the amounts certified by the Project Manager within twenty-eight (28) days of the date of each certificate.

### **(a) Payment on the basis of certificate issued by Project Director**

The maximum amount to be certified by the Project Director in different stages for satisfactory progress of the work will be as follows:

- i. 50% of the total amount of the price of material used for the works completed as per BoQ.

- ii. 50% of the total amount of the price of OSP service works, excluding miscellaneous items completed as per BoQ.
- iii. 100% of the payment for Route Survey and Network Diagram will be made after completion of the service and subsequently issuance of such certificate by PD.
- iv. For claiming running bill Major items (Duct laying and Hand hole installation) should be completed in a specific link.

**(b) Payment on the basis of PAC/FAC**

- i. After issuing PAC of each Section, payment of remaining 50% of the total amount of price of material and service works (except miscellaneous items) of that Section will be made. In case the PAC cannot be issued due to some unavoidable circumstances for which the Contractor is not liable; the Project Director may make a part payment, maximum 40% of the completed materials and service works for which PAC could not be issued.
- ii. 100% of the payment for Maintenance Support Service during Guarantee Period will be made after issuance of each FAC.
- iii. 100% of the payment for Project Management will be made after issuance of each PAC.
- iv. 100% of the payment for Transportation will be made after issuance of each PAC.
- v. 100% of the payment for Documentation (As-built diagram) will be made after issuance of each PAC.
- vi. 100% of the payment for Testing PAT and FAT will be made after issuance of each PAC and FAC respectively.

**8.4 Title of Ownership of the Equipment**

For all OSP covered by this purchase, the title of ownership shall be deemed to have been vested upon BTCL after such equipment have been loaded for transportation or on board of any vessel for subsequent shipment to any port of entry in Bangladesh.

**8.5 Storage of Materials**

The Contractor shall be responsible for storage of all materials at his own cost and risk until successful completion of PAT. The Contractor may avail the storage spaces if available at different sites free of charge; but in all such cases the security responsibilities for the store and risks shall vest upon the Contractor.

**8.6 Cut-over of the systems**

The systems shall, generally be put into commercial service after successful completion of the PAT. But BTCL shall reserve the right to put any or all portion of any or all systems to commercial service, under special circumstances, even if such portion(s) have not successfully passed the PAT. Under such circumstances, the Contractor shall not be relieved of his responsibilities of successful completion of the PAT for the relevant portion(s).

### **8.7 Documentation**

The Contractor shall supply at least (but not limited to) the following documents before PAT of each station. All cost for those documents shall be quoted

- i) As-built drawings for all relevant Termination Box : 2 sets per site
- ii) OFC Route map : 2 sets per site

In the As-built drawing, GPS co- location measured by precision GPS meter shall have to be provided for all Man-Hole/ Hand-Hole, Coupling point (CP) and turning points.

### **8.8 Installation Material**

The Bidder shall quote for all installation material for all of the OSP covered by this purchase. The material shall include all type of local material necessary to be used during installation, self-testing and PAT functions. All costs for materials shall be quoted and failure to quote shall be considered that the Bidder proposes to provide these material totally "*free of charge*" to BTCL.

### **8.9 Installation and Commissioning Services**

The Contractor shall be responsible to provide all services related to installation, commissioning and cut-over services for all OSP covered by this purchase.