

Universal Service Fund

(A company set up under Section 42 of the Companies Ordinance 1984)

REQUEST FOR APPLICATIONS FOR ESTABLISHING TELECENTERS ON BUILD, OPERATE, & TRANSFER (BOT) BASIS

Project ID:USF/SP/TELECENTER-PP/2016/02

Issued at Islamabad

September 30th, 2016

Universal Service Fund
Fifth Floor, HBL Tower, Jinnah Avenue,
Islamabad, Pakistan
Tel: 051-9212308-09
Fax: 051-9214261

USFCo.
Request for applications for establishing
Telecenters in USF areas on BOT Basis
Table of Contents

| | |
|---|-----------|
| <i>Part I: Introduction</i> | 5 |
| 1. Purpose of the RFA Process | 5 |
| 2. Source of Funds | 5 |
| 3. Current Legal, Regulatory, and Market Regime | 6 |
| 4. USF Policy | 6 |
| 5. Telecenters | 7 |
| 6. USF Requirements | 8 |
| 7. USF Contributors and Eligibility | 8 |
| 8. Time Schedule | 9 |
| 9. Project Administration and Correspondence | 9 |
| <i>Part II: Rights and Obligations of USF Service Provider</i> | 10 |
| 10. Exclusivity | 10 |
| 11. Construction of Telecenters, Supply of Services & Operations | 10 |
| 12. USF Payments | 10 |
| 13. Service Availability and Quality Specifications | 10 |
| 14. Scope of Work | 10 |
| 15. Regulation of Operators | 11 |
| 16. Interconnection and Facilities Sharing | 11 |
| 17. Numbering and Electronic Addressing | 11 |
| 18. Type Approval | 11 |
| 19. Regulation of USF Broadband Service Charges | 12 |
| 20. Authority to Construct and Use Facilities | 12 |
| 21. Requirement to Build, Operate and Transfer USF Telecenters | 12 |
| 22. Transfer or Change of Control | 12 |
| 23. <i>[Omitted]</i> | 13 |
| 24. Force Majeure | 13 |
| 25. Dispute Resolution | 13 |
| 26. Technical Auditor | 13 |

| | |
|--|-----------|
| 27. Compliance with Law _____ | 13 |
| 28. Term of BOT Agreement _____ | 13 |
| 29. Other Obligations under BOT Agreement _____ | 13 |
| 30. [Omitted] _____ | 14 |
| 31. [Omitted] _____ | 14 |
| Part III: Instructions to Applicants _____ | 15 |
| 32. Selection of Successful Applicant _____ | 15 |
| 33. [Omitted] _____ | 15 |
| 34. Qualification Criteria _____ | 15 |
| 35. Financing Capacity _____ | 15 |
| 36. Operational Experience _____ | 16 |
| 37. Applicant Eligibility _____ | 16 |
| 38. Consortium Applicant _____ | 17 |
| 39. Bid Bond _____ | 17 |
| 40. Responsiveness of Proposals _____ | 18 |
| 41. Content and Format of Proposals _____ | 18 |
| 42. Part 1 Structure Requirements – Qualification & Technical Proposal _____ | 19 |
| 43. Part 2 Financial Proposal _____ | 25 |
| 44. Compliance Checklist _____ | 26 |
| 45. Submission of the Proposal _____ | 26 |
| 46. Delivery of the Proposal _____ | 27 |
| 47. Opening of Proposals _____ | 27 |
| 48. Selection Process and Evaluation of Proposals _____ | 28 |
| 49. [Omitted] _____ | 29 |
| 50. Period of Validity of Proposal _____ | 29 |
| 51. Grounds for Rejection of Proposal _____ | 29 |
| 52. Subsequent Disqualification and Ineligibility _____ | 29 |
| 53. Letter of Intent _____ | 30 |
| 54. Performance Bond _____ | 31 |
| 55. Information Provided by USF Co. _____ | 31 |
| 56. Communications, Comments and Requests for Clarification _____ | 31 |
| 57. Confidentiality of Proposals _____ | 32 |

| | |
|---|-----------|
| 58. USF Co. Use of Proposals _____ | 32 |
| 59. Cost of Proposal and Bidding _____ | 33 |
| 60. Reservation of Rights _____ | 33 |
| 61. Legal and Formal Requirements _____ | 33 |
| 62. Miscellaneous. _____ | 33 |
| Part IV: Definitions _____ | 35 |
| 63. Definitions _____ | 35 |
| Annex 1: USF Financial Proposal Form _____ | 38 |
| Annex 2: Bid Bond _____ | 40 |
| Annex 3: Registration Form for TELECENTER(s) _____ | 41 |
| Annex 4: Form of Letter Regarding Compliance with License(s) _____ | 43 |
| Annex 5: Compliance Checklist _____ | 44 |
| Annex 6: Draft of Proposed BOT Agreement _____ | 45 |
| Annex 7: Dispute Resolution Terms and Processes _____ | 46 |

Part I: Introduction

1. Purpose of the RFA Process

1.1 All telecommunications licenses issued by the Pakistan Telecommunications Authority (“PTA”) subsequent to the De-Regulation Policy 2003 and the Mobile Cellular Policy 2004 provide for contribution by licensees to a Universal Service Fund (“USF”) except some Class licenses for Value Added Services (CVAS licenses).

1.2 USF intends to launch a tender for **Establishing Telecenters in un-served, under-served, rural and remote areas falling within the statutory mandate of USF** (“USF areas”) whereby USF Contributors will be asked to bid for the project on Build, Operate, and Transfer (**BOT**) basis.

1.3 The purpose of this Request for Applications (“RFA”) is to invite holders of telecommunication licenses with an obligation to make contribution to USF to submit Proposals, either individually or as part of a consortium, for the Telecenter Project.

1.4 This RFA is part of a Universal Service Program initiated by the Government of Pakistan (“GoP”), which is aimed at increasing access to ICTs – specifically, Broadband and electronic services - in un-served, under-served, rural and remote areas of Pakistan in a manner consistent with fair competition, international best practices and existing sector policies and GoP commitments.

1.5 GoP has created a not-for-profit Federal Government owned and controlled Universal Service Fund, a company set up under Section 42 of the Companies Ordinance 1984 (“USFCo”) to administer the USF, including the process initiated by this RFA (“RFA Process”). It is GoP’s intent that USFCo utilizes part of the USF fund toward payment for construction of Telecenter building, supply of equipment, broadband connectivity through Fiber Optic Cable, warranty support for supplied equipment, and operation of Telecenter for five years.

1.6 Further information on the establishment of Telecenters is set out in this RFA.

1.7 It is the intention of Government of Pakistan to implement its policy of extending access to Broadband and electronic services by establishing Telecenters in USF areas across Pakistan.

2. Source of Funds

Pursuant to Section 33A of the Telecommunication Re-organization Act, the USF shall consist of:

- (a) Prescribed contribution by licensees;
- (b) Sale proceeds from the auction of the right to use radio spectrum
- (c) Grants made by the Federal Government and the Provincial Governments;

(d) Loans obtained from the Federal Government; and

(e) Grants and endowments received from other agencies.

3. Current Legal, Regulatory, and Market Regime

3.1 Before 1996, Pakistan's telecommunications markets including internet were governed by the Telegraph Act, 1885 and Wireless Telegraphy Act, 1933. Most telecommunication services were provided by the GoP's Telegraph and Telephone Department and subsequently that Department was converted into a statutory corporation in 1990 as the Pakistan Telecommunication Corporation ("PTC") and later in 1996 it was converted into a public limited company Pakistan Telecommunication Company Limited ("PTCL"). Competitive mobile telephone service was launched in 1991. Payphone service was launched in 1993. But of these competitors, only PTC and then PTCL had a formal duty to serve cities, towns, villages and Mauzas in all areas of Pakistan.

3.2 Additional mobile, Wireless Local Loop (WLL), fixed-line Local Loop ("LL") and Long Distance International ("LDI") licensing since 2004 has increased competition substantially. Use of telecommunications services has expanded rapidly in this increasingly competitive environment.

3.3 Making modern telecommunications services (which include broadband services) available country-wide is a GoP priority.

3.4 In a competitive sector, it is not appropriate to impose universal service obligations on a single operator. Accordingly, the De-Regulation Policy (2003) at section 5, the Mobile Cellular Policy (2004) at section 8, and the Pakistan Telecommunications (Reorganization) Act, 1996 at section 33A, respectively, require that PTCL and all subsequent fixed and mobile licensees contribute to the USF.

3.5 Companies who enter into a BOT Agreement as a result of the RFA Process ("USF Service Providers") after competitive bidding will receive funding from the USF for the establishment of Telecenters, thereby increasing broadband penetration and providing public with access to e-services. The amount of the USF funding will be established in accordance with sections 12 and 43 of this RFA. The funding will be provided against identified Project Implementation Milestones in accordance with the Schedule D of the BOT Agreement.

4. USF Policy

4.1 The Universal Service Fund Policy ("USF Policy") is the policy framework guiding the RFA Process. It sets out goals, objectives, and guidelines for using USF funding to meet certain basic telecommunication and ICT services needs in areas of Pakistan which would otherwise remain un-served.

4.2 The USF Policy will guide the actions of USFCo. in administering the Universal Service Fund. The bidding of the project will be based on "reverse auction" with a reserve price. The RFA Process shall use competitive bidding among eligible licensees to minimize the amount of USF funding, and to maximize overall benefits from the USF. Together, these features establish a USF regime to extend access to Broadband and electronic services through Telecenters to un-

served and underserved, rural and remote areas in a sustainable manner consistent with fair competition.

4.3 The entire project shall be based on a **reserve price**.

5. Telecenters

5.1 A Telecenter will be a shared facility that provides public access to ICT and e-services primarily for the people in the un-served, underserved, rural and remote areas. Telecenter is universally considered to be an effective means in extending broadband internet outreach to un-served, underserved, rural and remote areas and enhancing ICT literacy. Telecenters have the potential to provide e-services, distance learning and create employment opportunities, among various other benefits.

5.2 The configuration of the Telecenter Project is given below;

- a) Construction of Telecenter building as identified at Schedule B-2 of the BOT Agreement.
- b) Supply of equipment as identified at Schedule B-1 of the BOT Agreement.
- c) Broadband connectivity through Fiber Optic Cable as specified at Schedule A of the BOT Agreement
- d) Warranty support for supplied equipment and operation of Telecenter for a period of five years.
- e) Operation of Telecenters as mentioned in the Telecenter Operational Guideline (Schedule B-4 of BOT Agreement) for five years which may be extended for further period upon mutually agreed terms and conditions where USFCo is satisfied with successful operation of Telecenters. In case extension is not agreed upon, or if the BOT Agreement is terminated before expiry, then USFCo shall take over the charge of Telecenters for transfer to a new operator through competitive bidding. In that case the Telecenter must be in a fully functional condition, and any shortcoming in the USF financed equipment and civil structure shall be rectified at bidder's cost.
- f) The Service Provider will provide following free of cost facilities;
 - i. Space and broadband services to NADRA for three years.
 - ii. Broadband internet to the General Public
- g) The Telecenter shall be primarily used for promotion of ICT services and provision of e-services provided by NADRA. Any other service, for example Biometric Sim Verification, etc., beneficial for communities and making the Telecenter financially viable, shall be provided with the prior written consent of the USFCo.

5.3 In order to achieve these objectives, USF Co. through this RFA process, will select USF Service Provider for the establishment of Telecenters on BOT basis at locations mentioned in Schedule C of BOT Agreement.

5.4 After establishing Telecenters, USF Service Provider will operate these Telecenters in a sustainable manner for a period of five years. The USF Service Provider will follow the Telecenter Operational Guidelines attached as Schedule B4 of BOT Agreement.

6. USF Requirements

The mandatory requirements, that has to be met by the successful Applicant(s) selected pursuant to this RFA, regarding construction, connectivity, equipment and operations are identified in Schedules A, A1, B-1, B-2,B-4, and B-5 of the BOT Agreement.

7. USF Contributors and Eligibility

7.1 Persons whose Local Loop (“LL”) Wireless Local Loop (“WLL”), Long Distance and International (“LDI”) or Telecommunication Infrastructure Provider (“TIP”) License was issued after adoption of the Deregulation Policy 2003, and persons whose mobile cellular license was issued or renewed after adoption of the Mobile Cellular Policy 2004 have an obligation to contribute 1.5% of annual gross revenues to the Universal Service Fund, less inter-operator fees and related payments mandated by the PTA or Frequency Allocation Board (“FAB”).

7.2 Any other licensee who has had its license issued, re-issued or amended to include Universal Service Fund contribution payment requirements will, on satisfaction of those requirements, be classified as a USF Contributor as well.

7.3 Eligibility to participate in the RFA process is limited to USF Contributors only under the Universal Service Fund Rules, 2006.

7.4 Rule 24(12) of the USF Rules sets out the following further restriction:

No single licensee may accumulate more than fifty per-cent of the total amount of USF subsidies awarded by the USF Company in multiple auctions. The period during which a licensee’s accumulation and proportion of USF subsidy amounts will be defined in guidelines or statements of auction procedures to be issued by the USF Company from time to time.

USFco. has developed guidelines under Rule 24(12), which can be amended from time to time. Applicants should consider the potential application of this restriction in considering their bidding strategy, particularly where multiple USF Projects are being offered.

8. Time Schedule

8.1 The timetable for the RFA events, beginning with publication of the pre-auction notice, is set out below.

| Event | Date |
|--|-----------|
| Publication of Specific Procurement Notice | 30-Sep-16 |
| Distribution of RFA document & Start of Registration | 30-Sep-16 |
| Pre Bid Meeting | 26-Oct-16 |
| Deadline for submission of questions by bidders | 10-Nov-16 |
| Final answers to questions | 15-Nov-16 |
| Last Date for Registration of Applicants | 21-Nov-16 |
| Deadline for submission of Proposals | 1-Dec-16 |
| Opening of the Qualification & Technical Proposal | 1-Dec-16 |

8.2 If the scheduled day of an event falls on a gazetted holiday in Pakistan, the day of the event will be the next working day following such holiday.

9. Project Administration and Correspondence

9.1 All correspondence relating to this RFA should be addressed to:

Chief Technology Officer (CTO), USFCo.
5th Floor, HBL Tower, Jinnah Avenue,
Islamabad,
Pakistan
Telephone: 051-9212308-09
Fax: 051-9214261
E-mail: projects.tenders@usf.org.pk

End of Part I

Part II: Rights and Obligations of USF Service Provider

10. Exclusivity

A USF Service Provider will not have any exclusive rights to provide USF Broadband Services in the USF Adjacent Areas of Telecenters.

11. Construction of Telecenters, Supply of Services & Operations

It is GoP's intent that USF Co utilizes part of the USF fund toward payment for construction of Telecenter building, supply of equipment, broadband connectivity through Fiber Optic Cable, warranty support for supplied equipment, and operation of Telecenter for five years in accordance with RFA.

12. USF Payments

In order to promote GoP's policy of expanding ICTs, Broadband & electronic services and access in un-served/under-served, rural and remote areas, USF funding, based on construction of Telecenter, provisioning of USF Telecenter Equipment and USF Telecenter Services to designated Telecenters and operational cost for five years, shall be provided to the USF Service Provider. The USF payments shall be made in accordance with the Schedule D of BOT Agreement.

13. Service Availability and Quality Specifications

13.1 The USF Service Provider must roll-out and operate Telecenters in accordance with the plans submitted and the technology described in its accepted Proposal.

13.2 The USF Service Provider must also roll-out and operate the Telecenters so that the USF Broadband Services meet all applicable quality of service measures and requirements, including those set out in applicable License(s) and BOT Agreement enclosed as Annex 6.

13.3 Quality of service reports for the USF Broadband Services shall be filed by the USF Service Provider with USF Co. in accordance with the BOT Agreement.

14. Scope of Work

14.1 **Construction of Telecenter Building-** To construct a building as per the design and requirements attached as Schedule-B2 of BOT Agreement.

14.2 **USF Broadband Services** – The USF Broadband Services, shall be provided to the Designated Telecenters through optic fiber, in accordance with Schedule A of the BOT Agreement.

14.3 **Equipment-** The equipment shall be provided in accordance with Schedule B-1 of BOT Agreement.

14.4 Operations – USF Service Provider shall be responsible for operation of Telecenters as mentioned in the Telecenter Operational Guideline (Schedule B4 of BOT Agreement) for five years extendable for further period upon mutually agreed terms and conditions.

14.5 Optional Services – In addition to the USF Broadband Services, a USF Service Provider may provide other optional services in the designated Telecenters, to the extent the USF Service Provider is authorized to provide such services under applicable License(s) without compromising on the quality of the USF Broadband Services after prior written approval by USF Co.

15. Regulation of Operators

USF Service Providers will remain subject to all other regulatory requirements established from time to time by the PTA, including the terms of all previously granted Licenses.

16. Interconnection and Facilities Sharing

16.1 Interconnection between a USF Service Provider’s network and other licensed telecommunications networks in Pakistan is governed by applicable laws such as:

- (a) The Act;
- (b) The Pakistan Telecommunication Rules, Policies and Guideline;
- (c) All applicable licenses;
- (d) The Interconnection Regulations; and
- (e) The BOT Agreement.

17. Numbering and Electronic Addressing

17.1 Any numbers or electronic addresses used in Pakistan by a USF Service Provider shall be in accordance with the Act and any applicable numbering or electronic addressing plans established by the PTA pursuant to the Act.

17.2 For the purposes of section 17.1, “electronic addressing” shall be interpreted as including ENUM, Distributed Universal Number Discovery (“DUNDi”) and other systems for mapping telephone numbers to IP addresses; but does not include domain name management related systems or functions.

18. Type Approval

Any Broadband equipment or facilities used in Pakistan by a USF Service Provider shall be subject to the type approval requirements of the Act and any type approval processes established by the PTA pursuant to the Act.

19. Regulation of USF Broadband Service Charges

19.1 The tariffs charged by a USF Service Provider for the Telecenters in the USF Adjacent Areas are subject to requirements under the BOT Agreement, including that those charges shall not exceed the USF Service Provider's national or regional tariffs for the same or equivalent services provided in urban locations that are not included in the USF Areas¹.

19.2 USF Service Providers remain subject to any other tariff regulation by the PTA pursuant to the Act.

20. Authority to Construct and Use Facilities

20.1 USF Services Provider shall construct or otherwise procure all ICT facilities required to provide the USF Broadband Services in Telecenters and USF Telecenter Equipment mentioned in Schedule A & B of the BOT Agreement.

Without limiting the generality of the foregoing, the USF Service Provider will apply for, and maintain, all utility connections in the name of USFCo.

20.2 All ICT facilities and equipment installed by a USF Service Provider as part of the USF Telecenters shall be:

- (a) New when first installed;
- (b) field-proven (in accordance with section 42.7); and
- (c) Compliant with internationally recognized standards.

21. Requirement to Build, Operate and Transfer USF Telecenters

A USF Service Provider shall be required to Build, Operate and Transfer Telecenters in accordance with the BOT Agreement.

22. Transfer or Change of Control

The BOT Agreement shall remain in force for a period of five years, in addition to one year and six months for construction of Telecenter, from the date of its signing. After the expiry of the contract period USF shall be entitled to take control of Telecenters or extend the contract by mutual consent on agreed terms and conditions. USF shall be entitled to take control of Telecenters upon termination of the BOT Agreement prior to the expiry of its original period.

¹See section 2.06 of BOT Agreement.

23. [Omitted]

24. Force Majeure

Where Force Majeure Certification has been duly issued by the USF Co, a USF Service Provider shall be excused in accordance with the BOT Agreement from certain failures to perform its obligations under the BOT Agreement if an event of force majeure has prevented the performance of the obligations (see Schedule K of BOT Agreement).

25. Dispute Resolution

The BOT Agreement includes a number of mechanisms to facilitate resolution of disputes, including the appointment by USFCo. of disputes committee, consisting of appropriately qualified persons. Where disputes cannot be resolved by application of these mechanisms (set out in Schedule M of BOT Agreement), parties will continue to have the right of recourse to legal proceedings in accordance with the laws of Pakistan.

26. Technical Auditor

A Technical Auditor shall be appointed by USFCo. in accordance with the BOT Agreement, and other processes applicable under law. The Technical Auditor(s) may be an appropriately qualified employee(s) of USFCo. and/or expert consultant(s), and will perform identified functions in accordance with the BOT Agreement including:

- (a) certification that Project Implementation Milestones have been met or otherwise;
- (b) certification that events of force majeure have prevented the performance of certain obligations under the BOT Agreement; and
- (c) proposing amendment in BOT Agreement, upon the occurrence of a certified event of force majeure etc.

27. Compliance with Law

A USF Service Provider shall be required to comply with all laws of Pakistan applicable to its activities related to Telecenter Project at all times, including the Act, all Regulations, Rules, Policies, Orders, decisions and guidelines issued under the Act.

28. Term of BOT Agreement

The total duration of the BOT Agreement will be six years six months, segregated as given below:

- I. Establishment of Telecenters – **one year six months** from the date of the signing of the BOT Agreement
- II. Telecenters Operation – **five years** after establishment of the Telecenters.

29. Other Obligations under BOT Agreement

The BOT Agreement contains specific obligations of the USF Service Provider, including obligations regarding construction of Telecenters, provision of the USF Broadband Services and USF Telecenter Equipment and Operation of Telecenters for five years. The BOT Agreement also includes specific remedies for non-performance, including en-cashing of the Performance Bond or exercising the lien, as well as insurance requirements, indemnification, and USF Service Provider's representations and warranties.

30. *[Omitted]*

31. *[Omitted]*

End of Part II

Part III: Instructions to Applicants

32. Selection of Successful Applicant

USF Co. plans to execute BOT Agreement with the Applicant whose Proposal meets the following selection criteria:

- (a) the Proposal demonstrates that the Applicant is a “Qualified Applicant”, meeting the requirements of sections 34, 35, 36 and 37 of this RFA;
- (b) the Proposal is “responsive”, meeting the requirements identified in section 40.1 of this RFA; and
- (c) the Applicant requests the lowest bid for the LOT i.e. to Build, Operate & Transfer Telecenters.

33. [Omitted]

34. Qualification Criteria

34.1 USF Co. will determine whether an Applicant qualifies as a Qualified Applicant for the purposes of the award of a BOT Agreement.

34.2 For the purpose of this RFA the qualification criteria are described in sections 35, 36, and 37.

35. Financing Capacity

35.1 The Applicant must satisfy USF Co. that the proposed USF Service Provider has sufficient financing capacity for the investments required to establish Telecenters, and operate these Telecenters for five years. The criteria to determine whether an Applicant has sufficient financing capacity for a project of this size are:

- (a) A net worth of not less than PKR 500,000,000 (Pak Rupees Five hundred million only) and
- (b) Possession or access to a line of credit equal to PKR 100,000,000 (Pak Rupees One hundred million only) per lot.

35.2 The net worth of any shareholder in the proposed USF Service Provider may be included in the calculation of the net worth of the proposed USF Service Provider for the purposes of sections 35.1 and 42.5 if:

- (a) the shareholder holds or will hold a minimum of 1/3 (one third) of the ownership interest (including all forms of ownership interest) in the USF Service Provider; and

(b) the shareholder indicates that it is willing to guarantee the performance of the USF Service Provider and provides a written undertaking to this effect for inclusion in the Proposal and in the BOT Agreement, which will be revised accordingly.

36. Operational Experience

36.1 The Applicant must have experience of establishing and operating ICT infrastructure for a minimum of five (5) years at the time of registration.

36.2 In complying with section 36.1 above, the Applicant may rely on:

(a) the operational experience of the USF Service Provider it proposes; or

(b) the experience of any Person that is a member of the Applicant's bidding consortium, and that Person:

(i) is licensed by the PTA; and

(ii) is a shareholder in the proposed USF Service Provider, or

(iii) has committed in a binding agreement to become a shareholder in the proposed USF Service Provider, provided that the Person holds or will hold a minimum of 1/3 (one third) of the ownership interests (including all forms of ownership interests) in the USF Service Provider.

37. Applicant Eligibility

37.1 The Applicant must demonstrate that the proposed USF Service Provider is eligible to receive the USF Funding.

37.2 As indicated elsewhere in this RFA, the Applicant must be a USF Contributor and included in the active taxpayers list of the Federal Board of Revenue

37.3 The Applicant must also not have any "conflict of interest", meaning any association with consultants or other advisors retained by USF Co. or GoP to advise on the design or implementation of the RFA Process; or participating in more than one Proposal in this RFA Process.

37.4 The USF Service Provider proposed by the Applicant must be incorporated under the Companies Ordinance, 1984.

37.5 The Applicant must possess valid License(s) for the relevant region and telecommunication services (i.e., has license to provide commercial internet/data services), issued by PTA. The Applicant must satisfy USF Co. that the proposed USF Service Provider is in substantial compliance with the conditions of its License(s). In complying with this requirement, the Applicant may rely on the License(s) of any shareholder in the USF Service Provider that meets the requirements of section 35.2.

38. Consortium Applicant

38.1 Any USF Contributor leading a consortium may bid for any Telecenter Lot on behalf of that consortium (“Consortium Applicant”) under conditions similar to those set out for an individual USF Applicant, provided that the consortium’s composition and Proposal materials satisfy the consortium requirements identified below – the BOT Agreement shall be revised, mutatis mutandis, to reflect the USF Service Provider being a consortium and the joint and several liability of each member of the consortium:

38.1.1 There shall be no limit on the number of members of the consortium, except that:

- (a) the consortium shall include at least one USF Contributor; and
- (b) the consortium shall include at least one LL, WLL or Cellular Mobile license holder; but shall include no more than one LL, WLL, Cellular Mobile or LDI license holder.

38.1.2 One member of the consortium shall be identified as the consortium leader. The consortium leader shall be responsible for consortium performance.

38.1.3 Notwithstanding section 38.1.2, all members of the consortium shall be parties to the BOT Agreement and shall be jointly and severally liable to USF Co. in respect to the performance of the BOT Agreement.

39. Bid Bond

39.1 The Bid Bond, valuing PKR 10,000,000 (Rupees Ten Million) for each lot, identified in section 45.8 USF Co. will not be obligated or liable to pay any accumulated interest on the Bid Bond.

39.2 The Bid Bond of all unsuccessful Applicants will be released not later than 30 days after the execution of the BOT Agreement. However the bid bond of the Applicant with second lowest bid, shall remain with USF Co. till the execution of the BOT Agreement with the successful Applicant.

39.3 The Bid Bond of the Applicant proposing the lowest funding will be released not later than 30 days after: i) the execution of the BOT Agreement; and ii) furnishing of the Performance Bond pursuant to section 54.

39.4 Notwithstanding section 39.3, the Bid Bond of the Applicant proposing the lowest funding shall be forfeited and encashed in any of the following cases:

- (a) the Applicant withdraws its Proposal prior to execution of the BOT Agreement or where, in the case of a consortium, the consortium agreement is terminated or amended prior to execution of the BOT Agreement without the prior written consent of USFCo;

(b) where the Applicant has received a Letter of Intent (LOI) for the execution of BOT Agreement and the Applicant fails or refuses to submit the Performance Bond in accordance with sections 53 and 54 of this RFA;

(c) if after the issuance of the Letter of Intent(LOI) USF Co. determines that Applicant is disqualified pursuant to section 51.1 of the RFA; and

(d) the USF Service Provider proposed by the Applicant does not execute BOT Agreement within 14 days of the issuance of LOI.

40. Responsiveness of Proposals

40.1 A Proposal will be considered responsive only if all of the following requirements are met:

(a) The Proposal is submitted by an Applicant (or any company or other Person identified in the Proposal as a member or participant in a Consortium Applicant) that has registered with USF Co. and purchased an official copy of the RFA in accordance with the Notice of Request for Applications document issued by USF Co..

(b) The Proposal is complete and submitted in accordance with all the requirements of this RFA, including the content requirements identified in sections 41, 42 and 43 and the submission requirements identified in sections 45 and 46.

(c) The Proposal is received before the closing date and time for submission identified in section 46.3.

40.2 Proposals that do not comply substantially with the above requirements will be rejected as non-responsive.

41. Content and Format of Proposals

41.1 Proposal for each LOT shall be assembled in two separate parts, contained in separate and clearly marked envelopes, as follows:

(a) Part 1 - **“Qualification & Technical Proposal”**, setting out information about the Applicant, the USF Service Provider proposed by the Applicant, construction, equipment and operations. (section 42)

(b) Part 2 - **“Financial Proposal”**, which shall set out the proposed USF Funding amount separately for each Telecenter LOT as mentioned in Schedule C of BOT Agreement. (Section 43)

41.2 The required content and form of each Part of the Proposal are outlined in more detail below. All parts of the Proposal must be printed using indelible ink.

42. Part 1 Structure Requirements – Qualification & Technical Proposal

Part 1 of the Proposal shall include the following documents and information:

42.1 Cover Letter and Attachments

(a) The cover letter and each page of the attached proposal materials must be signed by a person or persons duly authorized to act on behalf of the Applicant. Where the Applicant is a Consortium, the cover letter and attachments must be signed by a person or persons duly authorized to act on behalf of each member of the Consortium.

(b) The cover letter must provide a summary description of the Applicant, including the members of any Consortium Applicant, and of the USF Service Provider proposed by the Applicant.

(c) The cover letter must indicate a firm commitment to engage in final negotiation of the BOT Agreement promptly and in good faith.

(d) The cover letter must confirm that the Proposal is open for acceptance by USF Co. for 240 (two hundred and forty) days from the bid closing date identified in section 46.3 of this RFA.

(e) Attached to the cover letter must be one or more Power of Attorney (on stamp paper of the applicable value) and supporting Board resolutions (or extracts of Board resolutions duly certified by the respective company secretary) that clearly evidence the authority of the signatory/ (ies) of the cover letter and other documents submitted with the Proposal which require signature on behalf of the Applicant, a shareholder of the Applicant, the members of the Applicant Consortium, if applicable, or the USF Service Provider proposed by the Applicant. Powers of Attorney issued outside Pakistan shall be notarized and consularized by the relevant Pakistani embassy or mission and shall be affixed with adhesive stamps of the applicable value upon receipt in Pakistan before submission to USFCo.

(f) Also included with the cover letter must be the Bid Bond in the form of Annex 2 to this RFA, in accordance with the following requirements:

(i) The Applicant shall furnish a Bid Bond in the minimum amount of PKR 10,000,000 (Rupees Ten Million Only) in the form of Annex 2 to this RFA and issued by a reputable bank with AAA rating, located in Pakistan that is acceptable to USF Co.

(ii) The Applicant shall submit the Bid Bond as specified in Annex 2.

(iii) The Bid Bond of a Consortium must be in the name of the lead member of the consortium, who shall be expressly authorized to submit the same under the consortium agreement.

42.2 Information and Documentation on the Applicant

(a) The name, legal status, registered office address and a description of the business of the proposed USF Service Provider.

(b) The name, legal status, registered office address and a description of the business of all shareholders in the proposed USF Service Provider.

(c) The name, legal status and registered office address of any Person who Controls the proposed USF Service Provider.

(d) The name, legal status and registered office address of all Persons who own, directly or indirectly, any ownership interest in a shareholder of the proposed USF Service Provider.

(e) The name, country of citizenship and address of each Person who is a director of the proposed USF Service Provider.

(f) A chart:

(i) showing the ownership structure of the proposed USF Service Provider;

(ii) illustrating the relationship among all Persons having a direct or indirect ownership interest; and

(iii) specifying the nature and level of such ownership interest.

(g) A description of the legal status of the proposed USF Service Provider, including:

(i) a certified copy of its certificate of incorporation, Memorandum and Articles of Association;

(ii) a certified copy of a resolution of the Board of Directors of the USF Service Provider that authorizes the Applicant to submit the Proposal and to enter into the BOT Agreement if it is awarded the same – for the avoidance of doubt, the aforementioned Board resolution is required in addition to, and is separate from, the Board resolution mentioned in section 42.1(e) of this RFA; and

(iii) any shareholder agreement, joint venture agreement or Memorandum of Understanding, or other arrangement of any kind between the shareholders of the proposed USF Service Provider.

(h) In the case of companies with shares listed on a stock exchange, the information regarding shareholders required in sections 42.2(b), 42.2(d) and 42.2(f) must be provided only to the best of the Applicant's knowledge and only in respect of shareholders owning more than 10% (ten percent) of the issued shares.

42.3 Information to be submitted by a Consortium Applicant –

In the case of a Consortium Applicant, the Consortium Applicant's Proposal shall also include:

(a) the name, legal status, registered office address and a description of the business of all Persons with a direct or indirect ownership interest of more than 10% (ten percent) in the Consortium Applicant or in any member of the Consortium;

(b) where a Consortium member is an individual, identification and proof of citizenship for that individual;

(c) specific details of the structure of the Consortium, including identification of the lead member of the consortium;

(d) the agreement(s) establishing the Consortium, printed on stamp paper of the applicable value and executed by each member of the consortium through its duly authorized representative(s) whose signature shall be attested by two male witnesses or by one male and two female witnesses, and specifying at least:

(i) a clear allocation of responsibilities (including identification of the consortium leader) and confirmation that all members of the Consortium will be jointly and severally liable to USF Co. in respect of performance of the BOT Agreement;

(ii) the duration of the Consortium agreement;

(iii) details of the ownership interests in the Consortium and the financial contributions of each member;

(iv) arrangements governing managerial control by the Consortium over the operation of the USF Service Provider;

(v) a clear statement that the consortium agreement shall not be terminated or amended without the prior written consent of USF Co; and

(e) the powers of attorney (each on stamp paper of the applicable value) and supporting Board resolutions (or extracts of Board resolutions duly certified by the respective company secretary) from each member of the consortium that clearly approve the execution and implementation of the consortium agreement on behalf of each member of the consortium and evidence the authority of the signatory/(ies) of each member to enter into the consortium agreement on its behalf.

42.4 Documentation on the Applicant's License(s)

To demonstrate substantial compliance with the conditions of existing license(s), the Applicant shall submit:

(a) a copy of each license issued by the PTA to the proposed USF Service Provider, or to any shareholder of the USF Service Provider that meets the requirements of section 35.2;

(b) a copy of the most recent renewal of any such license; and

(c) a declaration in the form of Annex 4 to this RFA, representing that the Applicant is in compliance with all applicable license conditions, that PTA has not cancelled or suspended (or threatened to cancel or suspend) any such license and that it is otherwise in good standing with the PTA.

42.5 Documentation on Financial Resources of the Applicant

(a) Audited financial statements of the proposed USF Service Provider for the preceding two years, including an income statement and balance sheet, prepared in accordance with internationally accepted accounting standards as applicable in Pakistan by law; or

(b) If the proposed USF Service Provider has not existed, or has not received service revenues, for at least one year prior to the submission of the Proposal, the financial statements of any shareholder that meets the requirements of section 35.2 must be provided. The financial statements of said shareholder must be provided for the preceding one year and must be prepared in accordance with internationally accepted accounting standards (as applicable in Pakistan by law, in the case of Pakistani shareholders).

42.6 Documentation on Operational Experience of the Applicant

(a) Where the Applicant will rely on the experience of a Person identified in section 36.2, the Applicant must demonstrate that arrangements are in place to provide the proposed USF Service Provider with access to the technology, professional know how and operational experience required to operate the USF Network and to provide the USF Broadband Services. Specifically, the Proposal must include:

(i) a statement that identifies the Person;

(ii) documentation that clearly demonstrates that the relationship between the proposed USF Service Provider and such Person meets the requirements of section 36.2(b);

(iii) a written commitment from said Person to participate in the USF Service Provider's operations;

(iv) a description of such proposed participation, which must clearly demonstrate to USFCo's satisfaction that the Person will have a significant and continuing participation in running the operations of the USF Service Provider for the life of the BOT Agreement; and

(v) approval in writing by the Person's Board of Directors of the commitment and description of the Person's proposed participation.

(b) The Proposal shall include specific information regarding the telecommunications markets in which the proposed USF Service Provider (or, if its experience is relied upon, the Person identified in section 36.2) has operated in the manner described. Details should be provided concerning:

- (i) number of years of operation;
- (ii) Broadband management experience of the proposed USF Service Provider;
- (iii) types of ICT services provided; and
- (iv) experience of the proposed USF Service Provider in rolling out ICT services.

(c) The operational experience listed in section 36.1 above shall constitute experience of only one Person and not the aggregate experience of two or more Persons.

42.7 Field Proven Equipment and Software

(a) All proposed equipment and software shall have been satisfactorily field- proven in actual service. USF Co. reserves the right to verify the quality of the equipment and software and its satisfactory performance in actual service.

(b) The Applicant shall provide the technical specifications of the major types of equipment and software to be supplied, installed and operated in order to provide the USF Broadband Services, including modems, multiplexing equipment, routers, switches and method for connection to the global Internet.

(c) In view of the rapid technological development in communications technology, hardware and software, Applicants may propose that the USF Service Provider will install updated versions of the equipment and software in actual service. Applicants shall provide full details of the technological changes introduced in the proposed equipment and software.

42.8 Network Description

(a) The Applicant must provide a concise description of the planned network of the proposed USF Service Provider. The description must demonstrate that the proposed Telecenter will meet the requirements specified in the BOT Agreement, including, but not limited to, the USF Broadband Services specifications in Schedules A and B to BOT Agreement.

(b) The network description shall include:

(i) a summary description of the roll-out and service coverage plans for the Telecenters and USF Telecenter Services, that meet or exceed the Project Implementation Milestones;

(ii) the specific bandwidth capacity estimated by the Applicant as required to meet traffic requirements in the Telecenter(s) over the first five years of commercial operations, and how that capacity will be provided by the USF Service Provider;

(iii) proposed interconnection points: The Applicant should specify how it intends to connect its Broadband traffic to the Internet. The specification should make maximum use of existing services and facilities available from other service providers in order to minimize Funding requirements; and

(iv) a brief description of any land or rights in land (i.e., rights of way) that must be acquired for the operations, the estimated cost of acquiring such land or rights in land and the impact acquiring such rights might have on the Applicant's network roll-out plan;

(v) details of the alternate energy solution with detailed engineering drawings and designer certificates including mounting structure, weight, Line diagram of power system, design life, civil works, details of manufacturer, complete data sheets of all equipment involved and country of origin.

42.9 Operations Description - The Proposal must include:

(a) a general description of the intended operations of the USF Service Provider, including its general approach to implementation of Telecenter and provision of USF Broadband Services.

42.10 Quality of Service Description - The Proposal must include a summary of the methodology and processes that will be implemented by the proposed USF Service Provider to meet the service requirements and quality of service standards identified in Schedule A to the BOT Agreement, including performance monitoring, reporting and fault resolution processes.

42.11 Projected Financial Statements - The Applicant must provide projected financial statements for year one through five of the USF Service Provider, including an income statement, balance sheet and statements of sources and application of funds for the USF Service Provider prepared in accordance with internationally accepted accounting standards. For this purpose, the financial statements shall treat the USF Funding amount as if it were part of the debt, equity or deferred income of the USF Service Provider². The financial statements shall include projections of fee revenues from the USF Broadband Services and any Optional Services.

42.12 Tariffs and Charges - The Proposal must include a statement by the Applicant confirming that its tariffs and service charges for the USF Broadband Services in Telecenters will meet the tariff requirements identified in the BOT Agreement³.

42.13 Additional Information

²Applicants must take care that the USF Financing amount included in the financial statements is aggregated with other funds so that the amount of the Applicant's intended Financing cannot be specifically identified.

³See Section 2.06 of BOT Agreement.

(a) The Applicant's comments on the draft BOT Agreement or any other transaction documents or requirements, including particularly any terms or conditions that the Applicant cannot or will not comply with; and

(b) Any information that does not specifically respond to this RFA, but that the Applicant thinks is relevant to the Proposal.

43. Part 2 Financial Proposal

Information to be submitted by the Applicant in Part 2 of its Proposal:

(a) **Financial Proposal** – The Applicant must provide a complete Financial Proposal Form prepared in accordance with Annex 1 to this RFA. As indicated in Annex 1, the amount of the proposed total cost of the project in accordance with a reserve price shall be set out in words and numbers and in the event of any discrepancy between the words and numbers, the amount set out in words shall govern, and the currency of the proposed USF financial proposal shall be stated in PKR.

(b) Telecenter(s)– Telecenter will be auctioned based on a reserve price.

Capital Expenditures (CAPEX)

The reserve price for each Telecenter CAPEX will be PKR14 million, that includes the price of construction of the building, equipment, solar, optic fiber deployment, and other cost for the establishment of Telecenters. The reserve price (PKR 14 million) is inclusive of any and all taxes. Sales Tax (Provincial and Federal), duties, taxes, local cess, toll taxes, annual property tax etc will be the responsibility of the Service Provider throughout the entire duration of the BOT agreement.

The Applicant's Financial Proposal must state the proposed cost of the project for establishment of the Telecenter as required under BOT Agreement for each of Telecenter as indicated in Schedule C of the BOT Agreement. The Applicant shall separately state cost of:

- i. Establishment of each Telecenter as per Bill of Quantities as per respective schedule.
 - (i) Construction cost of the building PKR.
 - (ii) Construction cost of the building (external development including boundary wall, gates, etc)
 - (iii) Telecenter equipment as per schedule B-1
 - (iv) Cost of Optic Fiber cable (OFC) Deployment.

Operational Expenditures (OPEX)

USF will provide PKR 9 million for the operation of each Telecenter for entire period of BOT-Agreement.

All payments to the Service Provider will be subject to application of withholding taxes (Sales Tax & Income Tax) as per the prevailing federal and [provincial laws, in force, at the time of making the payment.

(c) **Calculation of Cost**– The Proposal must include a concise financial analysis detailing the calculation of the proposed USF Funding amount for each Telecenter for a particular LOT identified in Schedule C of the BOT Agreement. The information furnished in this regard will be kept strictly confidential by USF Co.; however, and as indicated in section 47.2, USF Co. shall be entitled to publicly announce the total amount of each Applicant’s USF Financial Proposal for each of the Telecenters for a particular LOT. The financial analysis must clearly demonstrate the breakdown of costs, itemized to show the costs of the components identified pursuant to section 42.8, per Telecenter.

44. Compliance Checklist

44.1 A “Compliance Checklist” is attached as Annex 5 to this RFA. Applicants must include a completed Compliance Checklist in each copy of their Proposals.

44.2 When completing the Compliance Checklist, Applicants must identify the specific parts and page numbers of their Proposals that correspond to the documents and information required by the RFA sections identified in the Compliance Checklist. Applicants must also specifically identify and comment on any of the identified RFA sections for which their Proposals are “Non-Compliant”.

44.3 Without derogating from the provisions of sections 44.1 and 44.2, above, in the event of any discrepancy between the Proposal requirements described in this RFA and the Compliance Checklist, the terms and requirements of this RFA shall prevail.

45. Submission of the Proposal

45.1 The Applicant shall prepare three copies of the Proposal for each LOT, clearly marking the first copy “Original Proposal” and each of the 2nd & 3rd, copies “Copy of Proposal”.

45.2 The Applicant shall also prepare one electronic copy of the Proposal for each LOT (i.e., CD-ROM or DVD containing a copy of the Proposal that is in a format readable by Microsoft Office or Adobe Acrobat software).

45.3 All copies of the Proposal shall be clearly marked with the name of the Applicant.

45.4 In the event of any discrepancy between copies, the original shall govern.

45.5 As indicated in section 41, the Proposal consists of two separate parts: Part 1, the Qualification and Service Proposal; and Part 2, the USF Financial Proposal. Each part of the Proposal shall be separated into clearly labeled envelopes, with each envelope containing the three hard copies and the CD-ROM or DVD copy of the applicable part of the Proposal. The envelopes containing the separate parts of the Proposal shall be packaged together in a single box or other container. The container shall be sealed; that is securely packed and closed, so that it is not possible to open it without visual evidence thereof.

45.6 Each Proposal package shall be clearly marked with the following information:

Proposal to Establish TELECENTERS LoT #

Name of Applicant:
Local Contact Name, Phone Number and E-Mail Address:

*“DO NOT OPEN, EXCEPT IN PRESENCE OF USF Co. AUCTION
COMMITTEE”*

45.7 USF Co. will provide a written receipt confirming the delivery of each Proposal received prior to the closing date and time.

45.8 The Bid Bond should be enclosed in a separately sealed envelope clearly marked with the name of the Applicant and the text “Bid Bond”. This envelope should be included in the container that includes all Proposal contents (see section 45.5), and delivered with the assembled Proposal package.

46. Delivery of the Proposal

46.1 The Proposal packages shall be delivered to the following address before the closing date and time identified in section 46.3:

Chief Technology Officer (CTO),
USFCo.
4th Floor, HBL Tower, Jinnah Avenue,
Islamabad, Pakistan

46.2 If the Proposal container is not sealed and marked properly, USF Co. will assume no responsibility for the Proposal or the disposition of its contents. Improperly marked or sealed packages may be rejected by USF Co.

46.3 **Closing Date for Submission of the Proposal** - The sealed Proposal package shall be delivered to USF Co. at the address specified in section 46.1 no later than 1500 hrs on December 1st, 2016.

46.4 **Late Proposal** - Proposals received after the closing date and time identified in section 46.3 will be returned un-opened to the Applicant(s).

47. Opening of Proposals

47.1 USF Co. will publicly open the duly received Proposals, in the presence of authorized representatives of any Applicants who desire to attend, commencing at 1500 hrs on the closing date identified in section 46.3, in the conference room of USF Co., 4th Floor HBL Tower, Jinnah Avenue, Islamabad. The opening will proceed whether one or more representatives of Applicants are present or absent. Following opening of the Proposals, USF Co. will proceed with evaluation of the Proposals in accordance with section 48.

47.2 All Proposals shall be opened one at a time, with a representative of USF Co. reading out the name of the Applicants and any other Applicant information that USF Co. may consider appropriate. Only Proposals opened and read out at the proposal opening shall be considered for further evaluation, irrespective of the circumstances. No Proposals shall be rejected at Bid opening except for late Proposals or any Proposals that are not accompanied by a Bid Bond.

47.3 USF Co. shall prepare a record of the initial Proposal opening that shall include, at a minimum, the name of the Applicant, the presence or absence of a Bid Bond and identification of any Proposals rejected for late submission. The Applicants' representatives who are present shall be requested to sign an attendance sheet.

48. Selection Process and Evaluation of Proposals

48.1 Subject to any request for clarification submitted by USF Co. pursuant to section 56.7, the information submitted by Applicants in response to this RFA will be the sole basis for the selection of the USF Service Provider. Provided that the Proposal is substantially responsive, USF Co. reserves the right to request Applicants to provide additional information and documents to assist USF Co in evaluating the Proposals. However, neither GoP nor USF Co., nor any other GoP body, will assist Applicants to supplement Proposals which are otherwise deficient or non-compliant. Failure to provide additional information within the identified timeframe may result in the Applicant's proposal being determined to be non-compliant.

48.2 USF Co. will review each Applicant's "Qualifications and Technical Proposal" (Part 1 of the Proposal) to determine whether or not each Applicant is a Qualified Applicant within the meaning of section 34 of this RFA. Applicants that fail to satisfy the criteria identified in section 34 for becoming a Qualified Applicant will be rejected. USF Co. will identify the grounds for rejection in a letter to each Applicant that fails to qualify as a Qualified Applicant.

48.3 USF Co. will open and review each Qualified Applicant's "Financial Proposal" (Part 2 of the Proposal). USF Co. will identify the date and time of opening the Financial Proposals and representatives of Qualified Applicants will be entitled to attend the opening of the USF Financial Proposals. The representatives of Qualified Applicants who are present at the opening shall be requested to sign an attendance sheet. A representative of USF Co. shall read out or otherwise announce the amount of financial proposal by each Qualified Applicant. USF Co. will prepare minutes for the USF Financial Proposal opening meeting. The minutes will be sent to all Qualified Applicants and will be published by USF Co. on its website.

a) After financial analysis of the Financial Proposals, USF will announce the lowest evaluated bidder for Telecenters.

48.4 **Awarding BOT Agreement**– BOT Agreement shall be awarded in the following manner:

(a) Subject to section 60, the BOT Agreement will be awarded to the Qualified Applicant that proposes the lowest financial bid for the **complete Telecenter lot** (herein after Successful Applicant).

48.5 **Ties** - In the event that there is more than one Qualified Applicant bidding the lowest USF Funding for entire Telecenter lot, USF Co. shall proceed as follows:

(a) The tied Qualified Applicants will receive written notice of the tie and instructions for submission of second round bids.

(b) The tied Qualified Applicants will proceed to a second round of bidding in which they will submit new Financial Proposals that comply with the requirements of sections 42 and 43 of RFA.

(c) The new Financial Proposal amount submitted by the tied Qualified Applicants must be smaller than the original Financial Proposal amount submitted by the Qualified Applicants.

(d) The new Financial Proposal shall be delivered in a sealed envelope, that is, securely closed so that it is not possible to open it without visual evidence thereof, to the address identified in section 46 and before the date and time specified in the written notice referred to in section 48.5(a). New Financial Proposals will not be accepted after the date and time specified in the written notice referred to in section 48.5(a).

48.6 USFCo's determinations in the evaluation process shall be final and binding upon Applicants.

49. [Omitted]

50. Period of Validity of Proposal

The Proposal shall remain valid for two hundred and forty (240) days from the closing date identified in section 46.3 of this RFA.

51. Grounds for Rejection of Proposal

51.1 USF Co. shall reject Proposals and remove them from further consideration for any of the reasons set out below:

(a) Failure to comply with any of the procedures or other requirements identified in sections 35, 36, 37, 40, 42, 43, 45 and 48 of this RFA.

(b) Failure to submit the Bid Bond amount specified in this RFA.

(c) Serious inaccuracy or misrepresentation of any material facts in any part of the Proposal.

(d) The Applicant submitting the Proposal is determined by USF Co. to have a conflict of interest (as that term is defined in section 37.3).

51.2 On the occurrence of any of the events identified above in section 51.1, USF Co. shall be entitled to select another Applicant as per section 53.2(c).

52. Subsequent Disqualification and Ineligibility

52.1 If evidence of any of the activities referred to in sub-sections 51.1 (c) through (d) is disclosed after the BOT Agreement has been executed, USF Co. may terminate the BOT

Agreement without compensation. The provisions of this section are in addition to any criminal or civil legal action which may be available to or taken by any government or regulatory authority, including PTA and USF Co.

52.2 USF Co. will declare an Applicant ineligible, either indefinitely or for a stated period of time, to be awarded a BOT Agreement or any other agreement if, at any time, it determines that the Applicant has engaged in corrupt, fraudulent, collusive or coercive practices in applying for, or in performing, a BOT Agreement.

53. Letter of Intent

53.1 USF Co. will issue a Letter of Intent (“LOI”) to the successful Applicant(s) to confirm USF Co’s intention to grant the BOT Agreement to the USF Service Provider proposed by the Applicant. The LOI will also require the USF Service Provider proposed by a successful Applicant to submit the required Performance Bond within 10 days of receipt of the LOI.

53.2 If the USF Service Provider proposed by the Successful Applicant to whom the LOI is directed does not submit the required Performance Bond within 10 days from the date of receipt of the LOI, USF Co. may:

- (a) forfeit the Bid Bond pursuant to section 39.4 above;
- (b) disqualify the Successful Applicant and the USF Service Provider proposed by the Applicant; and
- (c) may issue another LOI to the Qualified Applicant that has submitted the next lowest qualified Financial proposal for the Telecenters lot.

53.3 A Successful Applicant to whom a LOI is directed must accept the LOI by notice in writing (the “Letter of Acceptance”) to USF Co. within a maximum of seven (7) days from the date of receipt of the LOI.

53.4 It is the intention of USF Co. that the BOT Agreement (the “Agreement”) will be finally negotiated and signed within 30 days of the date of receipt of the LOI. In the event that USF Co. and the recipient of the LOI are unable to finalize the terms & conditions of the Contract within 30 day period, USF Co. shall be entitled to terminate negotiations, return the Performance Bond and may issue another LOI to the next Qualified Applicant.

53.5 Once the BOT Agreement has been entered into with the USF Service Provider(s), USF Co. shall publish the results of the RFA Process including at least the following information:

- (a) name of each Applicant who submitted a Proposal;
- (b) name of Applicants whose Proposals were rejected, and the reason(s) for their rejection;
- (c) the USF Financial Proposal amounts as read out at the Financial proposal opening;
- (d) the name of the winning Applicant; and

(e) a summary of the resulting agreement.

The information shall also be published on USF Co's website and may be published in any other manner directed by USF Co. or GoP.

54. Performance Bond

A USF Service Provider proposed by an Applicant to whom an LOI has been directed shall furnish the Performance Bond in accordance with this RFA Process and the BOT Agreement. The Performance Bond shall be prepared in the form of Schedule F / F1 of BOT Agreement, and shall be furnished within fourteen (14) days of the date of receipt of the LOI.

55. Information Provided by USF Co.

55.1 The information contained in this RFA and any other information provided to Applicants during the Proposal process is intended to assist Applicants in the preparation of their Proposals. USF Co. will ensure that all Applicants are provided with the same information during the Proposal process, in accordance with sections 33.5 and 33.6 of this RFA.

55.2 USF Co. has made and will continue to make reasonable efforts to include accurate and current information in this RFA and in any other documentation provided to Applicants and potential Applicants. However, neither GoP, USF Co. nor any of its agencies, employees, representatives, advisors or consultants shall have any liability whatsoever to any Applicant or any of its shareholders or members or any other Person resulting from use of or reliance on any of the information so provided. Applicants are encouraged to undertake their own verification of any information supplied by USF Co. prior to use of or reliance on that information.

56. Communications, Comments and Requests for Clarification

56.1 All deliveries, notices or other communications made by USF Co. to Applicants in connection with the Proposal process shall be sent by fax, e-mail or personal delivery to the registered office of the Applicant, as specified at the time the Applicant registered with USF Co. pursuant to this RFA Process.

56.2 All deliveries, notices or other communications made by Applicants to USF Co. in connection with the Proposal process, except for submission of the Proposal itself, shall be sent in writing by e-mail or personal delivery, unless otherwise specified by USF Co., to the contact person and address specified in section 9.1.

56.3 Subject to section 48.1, during the period between the deadline for submissions of Proposals and the award of the BOT Agreement, no Applicant, no USF Service Provider proposed by an Applicant and no party interested in a Proposal shall be permitted to discuss the merits of any Proposal with any representative of USF Co. Any communications, or attempted communications, in contravention of this section shall serve as ground for immediate disqualification.

56.4 Applicants are expected to carefully examine all instructions, forms and annexes in this RFA. Failure to furnish all information required by this RFA or the submission of a Proposal that does not comply with the RFA in all respects may result in disqualification of the Proposal.

56.5 A prospective Applicant requiring any clarification of this RFA or the draft BOT Agreement may pose one or more questions to USF Co. in writing by e-mail or personal delivery up to ten (10) days prior to the closing date for Proposals. USF Co. will respond in writing to such written questions following the pre-proposal meeting described in section 33 above. Written questions received by USF Co. less than ten (10) days prior to the closing date will not be answered.

56.6 A prospective Applicant may make comments on the structure and contents of this RFA or the draft BOT Agreement. Such comments should be sent in writing by e-mail or personal delivery to USF Co. up to ten (10) days prior to the closing date for Proposals. USF Co. will respond in writing to such written comments following the pre-proposal meeting described in section 33 above. USF Co. will not respond to written comments received by USF Co. less than ten (10) days prior to the closing date.

56.7 To assist in the examination and evaluation of Proposals, USF Co. may, at its discretion, ask any Applicant for a clarification of its Proposal. Any clarification submitted by an Applicant in respect to its Proposal that is not in response to a request by USF Co. shall not be considered. USF Co's request for clarification and any response shall be in writing. Subject to sub-section 48.5, no change in the proposed Funding amount shall be sought, offered or permitted, except to confirm the correction of arithmetic errors discovered by USF Co. in the evaluation of the Proposals. In responding to any request for clarification, Applicants may not attempt to change their Proposals, and any response that USF Co. determines constitutes a change to an Applicant's Proposal shall not be taken into account by USF Co. in evaluating the Proposal.

57. Confidentiality of Proposals

57.1 Except for the public opening of USF Financial Proposals pursuant to section 47, USF Co. shall treat all Proposals received in relation to this RFA as confidential during the period before the award of the BOT Agreement.

57.2 USF Co. and its agencies, employees, representatives, advisors or consultants shall take reasonable steps to protect Proposal related information from improper use or disclosure; however, liability for disclosure shall be subject to the limitation set out in section 61.3.

57.3 Information relating to the examination, evaluation, comparison, and qualification of Proposals, and any recommendation of Contract award, shall not be disclosed by any representative of USF Co. or GoP to Applicants or any other Persons not officially concerned with such process except as specifically permitted by sections 47, 48, and 53.5 of this RFA.

58. USF Co. Use of Proposals

Subject to compliance with intellectual property laws of Pakistan, and section 57 above, USF Co. shall have the right to use or reproduce ideas and information contained in a Proposal without notice or payment of any kind to the Applicant.

59. Cost of Proposal and Bidding

The Applicant shall bear all costs associated with the preparation and submission of its Proposal and USF Co. will in no case be responsible for any such costs, regardless of the conduct or outcome of the Proposal process.

60. Reservation of Rights

60.1 USF Co. reserves the right, in its sole discretion, to take any action, including amendment of this RFA, which it considers necessary to ensure that the RFA Process proceeds in a fair, open and transparent manner, in accordance with the laws of Pakistan and to meet the objectives of USF Co.

60.2 USF Co. reserves the right to modify or terminate the RFA Process at any time in its sole discretion and to accept or reject any bid/application, or to reject all bids/applications, in each case, without assigning any reason and without thereby incurring liability to any bidder/applicant or to any other person.

60.3 USF Co. is not legally obligated to execute the BOT Agreement. It may terminate the RFA Process or revoke an award of the BOT Agreement at any time before the BOT Agreement is executed.

61. Legal and Formal Requirements

61.1 **Governing Law** - This RFA and any BOT Agreement executed pursuant to this RFA shall be exclusively subject to, and interpreted in accordance with, the laws of Pakistan.

61.2 **Settlement of disputes** - Any dispute, controversy or claim arising out of or in connection with this RFA document, or the breach, termination or invalidity thereof, shall be subject to the dispute resolution terms and processes set out in Annex 7 to this RFA.

61.3 **Limitation of Liability** - Neither GoP nor any of its Ministries, agencies, employees, representatives, advisors or consultants, including USF Co. and its officers, employees, advisors and contractors, shall incur any liability whatsoever to any Applicant or any USF Service Provider proposed by an Applicant, or any of their respective shareholders or members or any other Person, in connection with any damages, losses, expenses or injury whatsoever, including but not limited to loss of revenue, opportunity, or goodwill, resulting from participation in the RFA Process, including reliance of any person on the information set out in this RFA, and from any cancellation of the RFA Process and from the outcome of the RFA Process.

61.4 **Language** - The Proposal, the accompanying documents, and all correspondence relating to this RFA shall be submitted in the English language, subject to the laws of Pakistan.

62. Miscellaneous.

62.1 All USF Service Providers are encouraged to develop and provide local content to the users in general and users in TELECENTERS. They may also establish their separate or a common web portal for the purpose.

62.2 All USF Service Providers are expected to employ people from local Areas and generate local employment by supporting and engaging local labor and industry.

End of Part III

Part IV: Definitions

63. Definitions

In this Request for Applications (RFA), unless the subject matter or context otherwise requires, the following terms shall have the following meanings and terms not defined below shall bear the respective meaning ascribed thereto elsewhere in this RFA, or in the BOT Agreement, as applicable:

“Agreement” means the BOT Agreement signed with successful Qualified Applicant(s) on successful conclusion of the RFA Process;

“Act” means the Pakistan Telecommunication Act (Re-Organization) Act, 1996, XVII of 1996, as amended, and any successor legislation;

“Applicant” means any Person that registers itself with USF Co. as an Applicant for purposes of this RFA, having obtained a copy of this RFA from USF Co.;

“Bid Bond” means the security for the bid, in the shape of demand draft in the name of USF Co., which an Applicant must furnish to USF Co. in accordance with section 39 of this RFA;

“BOT Agreement” means Build, Operate and Transfer Agreement, the draft of which is annexed as Annex- 6 to this RFA, for the construction, equipment, connectivity and operations of the USF Telecenters and payment of the USF Funding to be granted pursuant to this RFA;

“Compliance Checklist” means the form set out in Annex 5 to this RFA that Applicants must complete in accordance with section 44 of this RFA;

“Consortium Applicant” means a group of Persons, including a joint venture, that submits a Proposal on behalf of its members, and that meets all eligibility requirements identified in section 38.1 of this RFA;

“Contract” means the BOT Agreement signed with successful Qualified Applicant(s) on successful conclusion of the RFA Process;

“Control” of a Person other than an individual means the ownership of at least 51% (fifty one percent) of the voting interests in the subject Person; or the possession, directly or indirectly, of the power to direct or cause the direction of the management of that Person, whether through the ownership of shares, voting, securities, partnership or other ownership interests, agreement or otherwise;

“GoP” means the Government of Pakistan;

“Interconnection Regulations” means any interconnection regulations, rules or guidelines that may be issued by PTA from time to time;

“Letter of Acceptance” means the letter described in section 53.3 of this RFA;

“Letter of Intent” or “LOI” means the letter described in section 53.1 of this RFA;

“License” means any telecommunications license granted by the PTA to the USF Service Provider, or to any shareholder of the USF Service Provider that meets the requirements;

“Net worth” for the purposes of sections 35 means total assets minus total liabilities;

“Performance Bond” means the financial security for performance a USF Service Provider must furnish in accordance with section 54 of this RFA;

“Person” means any individual, firm, company, corporation, partnership, joint venture or other consortium, government or governmental entity;

“Point of Interconnection” or “POI” means a connection point between the networks of two telecommunications service providers;

“Project Implementation Milestones” means the milestones for the roll-out of the Telecenter Project identified in Schedule D of the BOT Agreement;

“Proposal” means a proposal submitted by an Applicant in response to this RFA;

“PTA” means the Pakistan Telecommunication Authority, a statutory body corporate established under Section 3 of the Act, and its predecessors and successors;

“Qualifications and Technical Proposal” means Part 1 of the Proposal, that Applicants must prepare in accordance with section 41.1(a) of this RFA;

“Qualified Applicant” has the meaning ascribed thereto in section 34 of this RFA;

“Reserve Price” means the maximum funding value available for each Telecenter and it includes capital expenditures (PKR 14 million) inclusive of all applicable taxes and operational cost for five years (PKR 9 million).

“The reserve price (PKR 14 million) is inclusive of any and all taxes. Sales Tax (Provincial and Federal), duties, taxes, local cess, toll taxes, annual property tax etc will be the responsibility of the Service Provider throughout the entire duration of the BOT agreement.”

“RFA” means this Request for Applications, including all annexes hereto, as amended or modified by USF Co.;

“Technical Auditor” means the Person or party appointed for the technical audit of the project, in accordance with the BOT Agreement;

“Telecenter” will be a Community E-Resource Center that will provide public with easy access to USF Broadband Services, and services offered by NADRA. Each Telecenter will be connected to internet through a 10 Mbps broadband, powered through commercial power and supported with renewable energy (Solar) , equipped with 20 computers, digital queue counter, multi-media and

other essential network elements (printer/ scanner/ copier) in accordance with Schedule A &B of the BOT Agreement;

“**USF Co.**” means the Universal Service Fund, a company setup under Section 42 of the Companies Ordinance 1984, established by the Government of Pakistan, and its successors;

“**USF Broadband Services**” has the meaning ascribed thereto in Schedule A of the BOT Agreement;

“**USF Telecenter Services**” means the ICTs services offered at Telecenters, in addition to the USF Broadband Services.

“**USF Contributor**” means any Person whose License includes identified USF Contribution requirements and is compliant with those requirements;

“**USF Network**” means the licensed telecommunication system consisting of the telecommunications network facilities to be deployed by the USF Telecenter Service Provider to provide USF Broadband Services pursuant to the BOT Agreement;

“**USF Rules**” means the Universal Service Fund Rules, 2006 (as amended);

“**USF Service Provider**” means the Party, other than USF Co., identified on the first page of this Agreement (referred to as the “Contractor” in the USF Rules);

“**USF Funding**” means the funding to be paid by USF Co. to the USF Telecenter Service Provider on achieving the Project Implementation Milestones;

“**USF Financial Proposal**” means Part 2 of the Proposal that Applicants must prepare in accordance with section 43 of this RFA; and

“**USF Financial Proposal Form**” means the form attached at Annex 1 of this RFA.

End of Part IV

Annex 1: USF Financial Proposal Form

RFA FOR ESTABLISHING TELECENTERS IN USF AREAS ON BOT BASIS

To:

The Chief Executive Officer
 USF Co.
 Fifth Floor, HBL Tower, Jinnah Avenue,
 Islamabad
 Pakistan

Applicant’s USF Financial Proposal:

The Applicant, *[insert name of Applicant]*, hereby commits to assume all of the USF Telecenter Service and USF Telecenter Equipment obligations identified in the RFA and BOT Agreement in consideration for the award of the BOT Agreement and payment of the amount of USF Funding indicated in the following table:

| Total Funding – [Insert Lot ID] | |
|--|--------------------------------|
| Total (CAPEX+OPEX for 5 Years) | [Insert Total Cost of the Lot] |
| CAPEX | [Insert CAPEX Cost of the Lot] |
| OPEX (for 5 Years) | [Insert OPEX Cost of the Lot] |

| | |
|--|--|
| Telecenter ID | [Insert Telecenter ID as given Schedule C] |
| Total CAPEX | <i>[Insert the CAPEX Value for the Telecenter]</i> |
| Construction cost of the Telecenter | <i>[Insert the Amount Quoted for the Construction]</i> |
| Price of USF Telecenter Equipment | <i>[Insert the Amount Quoted for the USF Telecenter Equipment]</i> |
| Value for Fiber Optic Cable Connectivity | <i>[Insert the Amount Quoted for the Connectivity through Fiber Optic Cable]</i> |

[Provide values mentioned in the table for each of the Telecenters separately in numbers and Words]

| | |
|-------------------------------|--|
| Telecenter ID | [Insert Telecenter ID as given Schedule C] |
| Total OPEX | <i>[Insert the OPEX Value for the Telecenter]</i> |
| Operational Cost for 1st Year | [Insert the value for Operational Cost for 1st Year] |
| Operational Cost for 2nd Year | [Insert the value for Operational Cost for 2nd Year] |
| Operational Cost for 3rd Year | [Insert the value for Operational Cost for 3rd Year] |
| Operational Cost for 4th Year | [Insert the value for Operational Cost for 4th Year] |
| Operational Cost for 5th Year | [Insert the value for Operational Cost for 5th Year] |

1. In the event of any discrepancy between the USF Funding amount and total cost of the TELECENTER Project(s) set out in words and numbers, the amount set out in words shall govern.

2. This USF Financing Proposal shall remain valid in accordance with section 50 of the RFA.

Signature: Print Name:

in the capacity of *[insert title/position of individual signing]* duly authorized to sign for and on behalf of *[insert name of Applicant]*.

Dated this [dd], day of [mm], 20[yy].

Witness Signature: Print Name:

Dated this [dd] day of [mm], 20[yy].

Annex 2: Bid Bond

Bid Bond in the form of Demand Draft Amounting of Rs. 10,000,000 (Pak Rupees Ten million) for each lot in the name of USFCo.

Annex 3: Registration Form for TELECENTER(s)

Universal Service Fund

(A company setup under Section 42 of the Companies Ordinance 1984)

“Every Pakistani has the right to modern telecommunication services and we strive to provide that.”

REGISTRATION FORM FOR USF PROJECT # _____

Name of Applicant: _____

Registered Address: _____

Postal Address: _____

Phone: _____

Fax: _____

Email: _____

Contact Person for correspondence: _____

Person authorized for Registration: _____

(attach copy of authorization)

Nature of applicant’s License (copy attached): _____

Telecom services authorized under the License: _____

Date of Expiry of License: _____

Licensed territory: _____

Audited/Unaudited Report of USF Contributions as payable & paid to date:

(summarize and attach copy of full report) _____

Amount of any USF contributions outstanding to-date: _____

Proof of payment: _____

List of Consortium members, if registration is for consortium:

Applicant declared eligible by PTA & MoIT: Yes No

(Attach copies of eligibility letters from PTA & MoIT)

Attach copies of clearance letters from PTA & MoIT Yes No

(regarding payments of USF contribution and APC

for USF and other related licensed obligations):

Compliance to roll out obligation: Yes No

Pay Order/DD of PKR 1,000 registration fee attached: Yes No

Certificate:

Certified that the information set out above is correct to the best of my information and belief, and nothing material has been concealed therefrom.

(Signature of Authorized Representative)

NIC: _____

Date: _____

Annex 4: Form of Letter Regarding Compliance with License(s)

[Month] [Day], 20[yy]

The Chief Executive Officer
USF Co.
Fifth Floor, HBL Tower, Jinnah Avenue,
Islamabad
Pakistan

Dear Sir:

Re: *[insert name of proposed USF Service Provider or Person falling within one of the categories listed in section 36.2(b) of the RFA]*

Compliance with Conditions of Telecommunications License(s)

[insert name of proposed USF Service Provider or Person falling within one of the categories listed in section 36.2(b) of the RFA] is the holder of the following telecommunications licenses issued by the PTA:

[list all PTA issued licenses, including appropriate license identification and date]

[insert name of proposed USF Service Provider or Person falling within one of the categories listed in section 36.2(b) of the RFA] remains in substantial compliance with all terms and conditions of the license(s) issued by the PTA, and otherwise remains in good standing with the PTA, which has not cancelled or suspended (or threatened to cancel or suspend) any such license.

Yours very truly,

[insert name of proposed USF Service Provider or Person falling within one of the categories listed in section 36.2(b) of the RFA]

Per:

(Signature)

[insert name and title of person signing letter]

[insert phone number of person signing letter]

[insert postal and e-mail address of person signing letter]

cc: Director General (Licensing), Pakistan Telecommunication Authority

Annex 5: Compliance Checklist

1. Compliance Sheet

A complete compliance sheet for each clause of RFA/BOT Agreement/Annexes/Schedules shall be provided as softcopy and a signed hardcopy in the following format

| Document | Clause No. | Compliance (Cross appropriate) | Proposal Page Reference | Remarks in case of Non Compliance |
|----------------------------|------------|---|-------------------------|-----------------------------------|
| RFA | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| Annex 1 – 5 & 7 | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| BOT Agreement (Annex 6) | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| Schedules | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |
| | | <input type="checkbox"/> FC <input type="checkbox"/> NC | | |

Note: FC- Fully Complied, NC – Not Complied

Annex 6: Draft of Proposed BOT Agreement

Annex [6] to TELECENTER RFA

Draft

[On Pakistan Stamp Paper of applicable value]

**UNIVERSAL SERVICE FUND
TELECENTER BUILD OPERATE TRANSFER - AGREEMENT**

BETWEEN

**UNIVERSAL SERVICE FUND
(A company set up under Section 42
of the Companies Ordinance, 1984)**

AND

[Telecenter Service Provider]

MADE AS OF

_____, 2016

TABLE OF CONTENTS

| | |
|--|-----------|
| ARTICLE ONE - INTERPRETATION | 4 |
| 1.01 Definitions | 4 |
| 1.02 Headings | 4 |
| 1.03 Extended Meanings | 4 |
| 1.04 Currency | 5 |
| 1.05 Schedules | 5 |
| ARTICLE TWO - PROVISION OF USF BROADBANDSERVICES | 5 |
| 2.01 General | 5 |
| 2.02 Implementation of the USF Network | 6 |
| 2.03 Provision of USF Telecenter Services | 6 |
| 2.04 Service Availability and Quality | 6 |
| 2.05 Facilities Access and Sharing | 6 |
| 2.06 USF Broadband Service Charges | 7 |
| 2.07 Provision of Land | 7 |
| ARTICLE THREE - OWNERSHIP AND CONTROL | 7 |
| 3.01 Ownership and Operation of Telecenters | 7 |
| 3.02 Change of Control of Telecenter Service Provider | 8 |
| ARTICLE FOUR - IMPLEMENTATION AND SERVICE FAILURES | 8 |
| 4.01 Failure to Meet Project Implementation Milestone Schedule | 8 |
| 4.02 Failure to Maintain Service Availability and Quality Specifications | 9 |
| 4.03 Additional Penalties or Remedies | 9 |
| ARTICLE FIVE - PAYMENT OF THE USF FINANCING | 10 |
| 5.01 Payment of USF Funding | 10 |
| ARTICLE SIX - PERFORMANCE SECURITY | 10 |
| 6.01 Performance Bond | 10 |
| 6.02 Equipment Lien | 11 |
| ARTICLE SEVEN - REPORTING | 11 |
| 7.01 Reports | 11 |
| ARTICLE EIGHT - INDEMNIFICATION | 12 |
| 8.01 Indemnification | 12 |

| | |
|--|-----------|
| ARTICLE NINE - CONFIDENTIALITY | 12 |
| 9.01 Confidentiality | 12 |
| ARTICLE TEN - TERM AND TERMINATION | 14 |
| 10.01 Term | 14 |
| 10.02 Termination – Bankruptcy, Winding Up, Etc. | 14 |
| 10.03 Termination – Material Breach | 14 |
| 10.04 Termination – Remedies | 15 |
| ARTICLE ELEVEN - GENERAL | 15 |
| 11.01 Records, Audit and Inspection | 15 |
| 11.02 Time of the Essence | 15 |
| 11.03 Expenses | 15 |
| 11.04 Public Announcements | 16 |
| 11.05 Benefit of the BOT Agreement | 16 |
| 11.06 Entire BOT Agreement | 16 |
| 11.07 Severability | 16 |
| 11.08 Amendments and Waiver | 16 |
| 11.09 Assignment | 16 |
| 11.10 Subcontractors and Other Suppliers | 17 |
| 11.11 Notices | 17 |
| 11.12 Governing Law | 17 |
| ARTICLE TWELVE - COMPLIANCE WITH ENVIRONMENTAL AND OTHER LAWS | 18 |

UNIVERSAL SERVICE FUND TELECENTERS SERVICES AGREEMENT

THIS BOT Agreement is made as of [Day] [Month] [Year];

BETWEEN:

Universal Service Fund, a company set up under Section 42 the Companies Ordinance 1984 having its principal office at Fifth Floor, HBL Tower, Jinnah Avenue, Islamabad through its Chief Executive Officer, (hereinafter referred to as "USFCo")

- and -

_____ (hereinafter referred to as "Telecenter Service Provider").

WITNESSES THAT:

WHEREAS USFCo wishes to ensure the supply of certain USF Telecenter Services to certain identified Telecenter(s) and to facilitate the implementation of a USF Network to provide such services;

AND WHEREAS the Telecenter Service Provider has been selected by USFCo through competitive process to provide the USF Telecenter Services in the Telecenter(s) mentioned in Schedule C;

AND WHEREAS the Telecenter Service Provider wishes to construct the USF Telecenter and to provide USF Telecenter Services upon and subject to the terms and conditions hereinafter set forth;

NOW THEREFORE, the parties hereto agree as follows:

ARTICLE ONE - INTERPRETATION

1.01 Definitions

Definitions are mentioned in Schedule H attached to this BOT Agreement.

1.02 Headings

The division of this BOT Agreement into Articles and Sections and the insertion of a table of contents and headings are for convenience of reference only and do not affect the construction or interpretation of this BOT Agreement. The terms "hereof", "hereunder" and similar expressions refer to this BOT Agreement and not to any particular Article, Section or other portion hereof. Unless something in the subject matter or context is inconsistent therewith, references herein to Articles, Sections and Schedules are to Articles and Sections of and Schedules to this BOT Agreement.

1.03 Extended Meanings

In this BOT Agreement words importing the singular number also include the plural and vice versa. Words importing any gender include all genders.

1.04 Currency

All references to currency herein are to Pakistan rupees (PKR), unless stated otherwise in this BOT Agreement.

1.05 Schedules

The following are the Schedules annexed hereto and incorporated by reference and deemed to be part hereof:

- Schedule A – Broadband Services, Availability & Quality Specifications
- Schedule A1—Optic Fiber Connectivity
- Schedule B1 – Telecenter Equipment
- Schedule B2 – Telecenter Building
- Schedule B3 – Provisioning of Land by USF
- Schedule B4 – Telecenter Operational Guidelines
- Schedule B5 – Bill of Quantities
- Schedule C – Telecenter(s) locations
- Schedule D – USF Project Implementation and funding Payment Schedule
- Schedule E – Material Events of Default
- Schedule F – Performance Bond
- Schedule G – Letter of Lien
- Schedule H – Definitions
- Schedule I – Insurance
- Schedule J – Technical Auditor
- Schedule K – Force Majeure
- Schedule L – Representations and Warranties
- Schedule M – Dispute Resolution

ARTICLE TWO - PROVISION OF USF BROADBANDSERVICES

2.01 General

Subject to the provisions of this BOT Agreement, the Telecenter Service Provider shall establish Telecenters on the land provided as per Schedule B3 of BOT Agreement and shall otherwise comply with its obligations under that Schedule, provide Telecenter Equipment, broadband connectivity to the Telecenter, and operate these Telecenters for a period of five years subsequent to its establishment and comply with its obligations under Schedule I (Insurance) of BOT Agreement and with all other obligations under this BOT Agreement; and USFCo will provide funding to assist in meeting the costs of construction of Telecenters, procurement of the Telecenter Equipment, provide broadband connectivity, and operation of these Telecenters for five years.

2.02 Implementation of the USF Network

(a) The USF Telecenter Service Provider shall establish and operate Telecenters in accordance with the Project Implementation Milestones, identified in Schedule D.

(b) In implementing the Telecenter Project, the Telecenter Service Provider shall comply with all planning and approvals processes, and applicable environmental guidelines including those identified in Article 12.

2.03 Provision of USF Telecenter Services

(a) The Telecenter Service Provider shall provide Services in Telecenter in accordance with the service specifications and requirements identified in Schedules A.

(b) In addition to the USF Broadband Services, the Telecenter Service Provider may provide any other optional services authorized by the License issued by PTA or any other regulatory body's issued license held by the Telecenter Service Provider in Pakistan, without compromising on the quality of the USF Broadband Services, after prior approval from USF.

2.04 Service Availability and Quality

The Telecenter Service Provider shall provide the Services in accordance with the quality of service requirements identified in Schedules A, any quality of service requirements identified in the Telecenter Service Provider's License and any quality of service regulations issued by PTA.

2.05 Facilities Access and Sharing

(a) As required pursuant to Rule 27 of the USF Rules, the Telecenter Service Provider shall share the passive USF Network infrastructure and facilities established with the USF funding, with at least two requesting USF contributors, on a first come first served basis and at rates based on reasonable cost.

(b) Where the Telecenter Service Provider and USF contributor requesting facilities access are not able to successfully negotiate the terms of access, following a reasonable period of good faith negotiation, either party may request the assistance of the PTA in resolving the disputed terms.

(c) In determining whether rates for infrastructure sharing are based on reasonable cost, or to assist in resolving any other dispute regarding the terms of facilities access, USFCo shall be entitled to disclose information obtained by it pursuant to Section 11.01 to the PTA.

(d) The Telecenter Service Provider shall also comply with any facilities sharing requirements set out in regulations, guidelines, decisions or orders issued by the PTA.

2.06 USF Broadband Service Charges

The Telecenter Service Provider's charges from the subscribers in the USF Adjacent Area for the USF Broadband Services shall not exceed the USF TELECENTER Service Provider's National or Regional tariffs for the same or equivalent Broadband services provided in locations that are not included in Schedule C. To determine compliance with this Section 2.06, reference shall be made to the PTA's then-current records of USF TELECENTER Service Provider tariffs.

2.07 Provision of Land

The USF shall provide the land as set out in the BOT Agreement including in Schedule B-3 hereof. The USF Service Provider shall construct or otherwise procure all ICT facilities required to provide the USF Telecentre Services in Telecenters and USF Telecenter Equipment mentioned in the BOT Agreement.

ARTICLE THREE - OWNERSHIP AND CONTROL

3.01 Ownership and Operation of Telecenters

Ownership of the Telecenters will remain with USFCo, and USFCo through the service provider will operate the Telecenter.

(a) The USF Broadband Services shall be provided through fiber optic cable, either owned or operated by the Telecenter Service Provider.

(b) The Telecenter Service Provider may extend the reach or capability of its USF Network by acquiring facilities or services from another network operator on a resale basis, that is by transmission over the networks of other operators or by means of leased line services acquired from other telecommunications operators.

(c) Regardless of whether the USF Broadband Services are provided in accordance with Sections 3.01(a) or (b), the obligations hereunder to implement the USF Network and to provide the USF Broadband Services remain entirely those of the Telecenter Service Provider.

(d) Upon the expiry of the Term, or earlier termination (howsoever caused or arising) of this BOT Agreement, (including, without limitation, the USF Network and USF Telecenter Equipment) shall be deemed automatically to vest in USFCo (and USFCo shall take over the charge of Telecenters) without the need for any further action by either Party and without any other, or further, payment thereby becoming due in consideration thereof, without affecting the USF Service Provider's entitlement to any amount (if any) that is otherwise then due and payable under this BOT Agreement.

(e) During the Term of this BOT Agreement, risk in and to the land, building and assets (including, without limitation, the USF Network and USF Telecenter Equipment) shall

remain vested in the Service Provider notwithstanding USFCo's ownership of all or part thereof. If, upon the expiry or termination of this BOT Agreement, the Telecenter is not in a fully functional condition, the USF Service Provider shall rectify any shortcoming in the Telecenter (including equipment and civil structure) at its own cost.

3.02 Change of Control of Telecenter Service Provider

The prior written consent of USFCo will be required for any change of Control of the Telecenter Service Provider.

ARTICLE FOUR - IMPLEMENTATION AND SERVICE FAILURES

4.01 Failure to Meet Project Implementation Milestone Schedule

(a) Unless a Force Majeure Certification has been issued to certify that a Force Majeure Event has caused the failure, failure to meet the Final Implementation Date identified in Schedule D may, at the sole discretion of USFCo, result in the imposition of one or more of the penalties set out below:

(i) payment of liquidated damages equal to one-half of one percent (0.5%) of the USF funding amount payable for the work that is delayed, and such half percent shall be payable per every week the failure continues, subject to a maximum of 10% of the total value of this BOT Agreement provided that the Parties hereby expressly agree that, as provided in Section 11.02 of this BOT Agreement, time shall be of the essence of this BOT Agreement notwithstanding this provision for liquidated damages and that the right of USFCo to avail of any or all, or a combination of, the remedies set out herein shall not be affected, impaired or conditioned as a result of this provision for liquidated damages;

(ii) loss of eligibility for all or part of the USF funding;

(iii) forfeiture of all or part of the Performance Bond;

(iv) repayment of any USF funding amounts previously paid to the USF Service Provider;

(v) taking possession and ownership of USF Network and USF Telecenter Equipment and the exercise of any other remedies or rights by USFCo under the equipment lien created pursuant to Section 6.02; and

(vi) without affecting any indemnities for the benefit of USFCo under this BOT Agreement, payment of liquidated damages equal to USFCo's estimate of the aggregate cost of providing (during the balance Term) the USF Telecenter Services in the USF Areas left unserved due to the failure, which shall, without limiting the generality of the foregoing, include, the cost of completing the construction of the Telecenter and of installing, operating and maintaining USF Telecenter Equipment therein, [provided always that the total amount of such liquidated damages shall not exceed the total amount of the USF funding

payable to the USF Service Provider under Section 5.01 of this BOT Agreement during the Term];

Provided that in case of termination of BOT Agreement without achieving a single milestone due to force majeure event the USF Service Provider shall be bound to return the total mobilization advance, otherwise, USFCo has the right to forfeit the Performance Bond to the extent of mobilization amount.

(b) Such penalty or penalties shall be specified in a written notice delivered by USFCo to the Telecenter Service Provider in accordance with Section 11.11. The penalty or penalties shall become effective in the manner specified in such notice.

(c) The liquidated damages under this BOT Agreement shall be payable in all events without setoff or counterclaim by the Service Provider and the Parties hereby agree that the amount thereof is reasonable and has been mutually agreed as the predetermined loss of USF in the circumstances. The Parties further agree that the provision(s) for liquidated damages under this BOT Agreement shall not limit any indemnities for the benefit of USFCo under this BOT Agreement, nor any remedies available to USFCo based on, or with reference to, any such indemnities.

4.02 Failure to Maintain Service Availability and Quality Specifications

(a) Unless a Force Majeure Certification has been issued to certify that a Force Majeure Event has caused the failure, then failure of the Telecenter Service Provider to maintain the Service Availability and Quality Specifications for the Telecenter asset out in Schedule A, at the sole discretion of USFCo, result in the imposition of one or more of the penalties set out below:

(i) loss of eligibility for all or part of the USF funding;

(ii) forfeiture of all or part of the Performance Bond; and

(iii) repayment of any USF funding amounts previously paid to the Telecenter Service Provider;

(iv) taking possession of USF Network and USF Telecenter Equipment and the exercise of any other remedies or rights by USFCo under the equipment lien created pursuant to Section 6.02.

(b) Such penalty or penalties shall be specified in a written notice delivered by USFCo to the Telecenter Service Provider in accordance with Section 11.11. The penalty or penalties shall become effective in the manner specified in such notice.

4.03 Additional Penalties or Remedies

The penalties described in Sections 4.01 and 4.02 are in addition to any other penalties or remedies that may otherwise be available to USFCo under this BOT Agreement or the laws of

Pakistan. The rights and remedies of USFCo under this BOT Agreement are cumulative and not exclusive of any right or remedy available to it under this BOT Agreement or in law.

ARTICLE FIVE - PAYMENT OF THE USF FINANCING

5.01 Payment of USF Funding

USFCo shall pay the Telecenter Service Provider the USF funding in accordance with the funding installment payments identified in Schedule D.

ARTICLE SIX - PERFORMANCE SECURITY

6.01 Performance Bond

(a) The Telecenter Service Provider shall furnish USFCo with an irrevocable bank guarantee in the form specified in Schedule F / F (1), or other form of performance guarantee acceptable to USFCo (the "Performance Bond").

(b) The amount of the Performance Bond shall be 40% of the USF funding, excluding the operational cost for five years to the Telecenter Service Provider. The validity of the Performance Bond shall be six (6) years and nine months or any other extended period due to force majeure or otherwise. However the Telecenter Service Provider shall have the option to submit a single Performance Bond valid for six (6) years and nine months or successive six annual Performance Bonds with minimum one year validity in accordance with Schedule "F", provided that the amount of each such Performance Bond shall be 40% of the USF funding, excluding the operational cost for five years to the Telecenter Service Provider. In other words, the amount guaranteed under the Performance Bond shall be the same, irrespective of the validity period of each Performance Bond. In case Telecenter Service Provider opts for successive six annual Performance Bonds then it shall:

(i) submit first Performance Bond as per requirements of this BOT Agreement with validity of one year;

(ii) submit second Performance Bond of same value and in the same form with minimum one year validity, one month before the expiry date of the first Performance Bond. Similarly it shall submit third performance bond one month before the expiry date of the second Performance Bond .Likewise it shall submit fourth performance bond one month before the expiry date of the third Performance Bond, fifth performance bond one month before the expiry date of the fourth Performance Bond and sixth performance bond one month before the expiry date of the fifth Performance Bond provided that the expiry date of the sixth performance Bond shall be the same as the expiry date of the six year and nine months Performance Bond would have been;

(iii) be entitled, after submitting the new Performance Bond, to get previous Performance Bond released from USFCo within five (05) days of the effective date of the new Performance Bond ;

(iv) not have the right to expect or demand a reminder from USFCo regarding expiry of any of the Performance Bonds or submission of new Performance Bond; and

(v) have no objection to encashment of a Performance Bond by USFCo due to late or non-submission of new Performance Bond.

(c) The Performance Bond shall be issued by a commercial bank from any branch in Islamabad, recognized by State Bank of Pakistan, and that is otherwise acceptable to USFCo.

(d) The Performance Bond shall be maintained for the period identified in Schedule F, commencing from the Effective Date.

(e) The Performance Bond shall be forfeited, in whole or in part, as provided for in Article Four and also in the event that the USF Service Provider, having opted to submit successive six annual Performance Bonds, fails to submit a new Performance Bond one month before the expiry date of the then current Performance Bond.

6.02 Equipment Lien

As required pursuant to Rule 26(6) of the USF Rules, all equipment deployed by the Telecenter Service Provider in establishing Telecenters shall be subject to a lien exercisable by USFCo pursuant to the documented terms of the lien and Section 4.02 (a) (iv). The lien shall have a maximum value equal to the funding as per installed BOQ. The Telecenter Service Provider shall execute, concurrently with this BOT Agreement, a Letter of Lien as at Schedule G to substantiate the lien and to support its enforceability. The Telecenter Service Provider shall, prior to execution of the lien, obtain and provide to USFCo the unconditional no objection certificates of its secured creditors so as to enable USFCo to register the equipment lien with the relevant Company Registration Office of the Securities and Exchange Commission of Pakistan.

ARTICLE SEVEN - REPORTING

7.01 Reports

(a) The Telecenter Service Provider shall provide to USFCo, within 60 days of the Effective Date and for each calendar quarter (three months) thereafter throughout the Term of this BOT Agreement, a report (the "Report"), which shall include:

(i) a report on the achievement of the Project Implementation Milestones set out in Schedule D;

(ii) a report on the achievement of the quality of service and other service as set out in Schedules A, including details regarding service maintenance and the time required to repair service outages;

(iii) a report on Telecenter's usage comprising, but not limited to, Telecenter usage logs;

(v) On-demand report(s) for the Telecenter, and

(vi) such other information as requested by USFCo.

(b) The Reports shall be filed by the Telecenter Service Provider with USFCo within 30 days of the end of the relevant quarter, or agreed schedule.

(c) The Reports shall be in a form satisfactory to the USFCo. Any disputes regarding the form of the reports shall be handled in accordance with Schedule M.

(d) The Telecenter Service Provider shall also provide monthly reports as identified at Schedule B4.

ARTICLE EIGHT - INDEMNIFICATION

8.01 Indemnification

(a) The Telecenter Service Provider hereby indemnifies and agrees to save harmless Universal Service Fund, USFCo and GoP and their respective officials, employees, advisors, contractors and agents from and against any and all claims, damages, judgments, liens, suits, costs and expenses of any nature or kind whatsoever that may be claimed or asserted or initiated by any person against USFCo arising out of, or in connection with, the establishment or operation of the Telecenter and the execution, delivery and implementation of this BOT Agreement.

(b) The Telecenter Service Provider's obligation to indemnify and hold USFCo harmless is contingent on USFCo giving the Telecenter Service Provider notice of any event giving rise to such a claim (an "Indemnification Notice") and giving the Telecenter Service Provider the authority to conduct the defense of any legal action arising therefrom, provided however that USFCo may assist the Telecenter Service Provider in such defense at its own expense and retain additional counsel at its own expense to observe or participate in any such litigation and provided further that the Telecenter Service Provider shall require USFCo's prior written consent in order to make any admission in, or to compromise or settle, any such legal action.

ARTICLE NINE - CONFIDENTIALITY

9.01 Confidentiality

Except as specifically provided for in this BOT Agreement or as required by applicable laws or regulation, neither USFCo nor the Telecenter Service Provider, nor any of their respective employees, agents, servants or subcontractors may disclose any confidential or trade secret information provided by one to the other with respect to the Telecenter Project or any other matter pertaining to this BOT Agreement without the prior written consent of the other. Each party must retain such information in strict confidence for the benefit of the other party, provided that the foregoing will not apply to any information that either party establishes as being already in the public domain or already known to the party receiving the information, without violation of this BOT Agreement.

ARTICLE TEN - TERM AND TERMINATION

10.01 Term

This BOT Agreement commences on the Effective Date and continues for a term of six (6) years six (6) months ending on [dd/mm/20[yy]] (the “Term”) (or any other extended period either due to force majeure or otherwise) unless terminated earlier in accordance with the provisions of this BOT Agreement. The Term may be extended for a further period upon mutually agreed terms and conditions if USFCo is satisfied with successful operation of Telecenters.

10.02 Termination – Bankruptcy, Winding Up, Etc.

(a) This BOT Agreement and the rights and obligations of each Party contained herein may be terminated by USFCo forthwith by giving notice to the Telecenter Service Provider upon the happening of any of the following events of default:

(i) where the Telecenter Service Provider takes any action in respect of liquidation or winding up, or makes an assignment for the benefit of creditors, or if a winding up, bankruptcy or similar petition under the Companies Ordinance is filed or presented by the Telecenter Service Provider or any other person in respect of its properties or assets, or a judgment or order is entered by any court of competent jurisdiction approving any such petition or petition seeking the reorganization, arrangement or composition of or in respect to the Telecenter Service Provider or its debts or obligations, or if a custodian or receiver or receiver and manager or any other official with similar powers be appointed for a Telecenter or the Telecenter Service Provider or a substantial portion of its properties or assets and such appointment is not dismissed or discharged within 30 days thereof; or

(ii) where a winding up, bankruptcy or similar petition with respect to an enforced liquidation of the Telecenter Service Provider is presented or filed against it unless the same is dismissed or discharged within 30 days, during which grace period execution thereunder is effectively stayed.

10.03 Termination – Material Breach

(a) Subject to Section 10.03(b), if any Party commits a material breach of this BOT Agreement, the Parties agree that the other Party not in default has the right to terminate the BOT Agreement; provided that the Party not in default gives the other Party who is in default not less than 30 days prior written notice of the default complained of during which period the Party alleged to be in default has an opportunity to cure the same and if the default is cured within such period, the other Party is not entitled to terminate the BOT Agreement.

(b) Schedule E is a list of defaults which the Parties acknowledge as constituting material events of default and for which the other party would be entitled to terminate the BOT Agreement pursuant to this Section 10.03. The Parties acknowledge that this BOT

Agreement may also be terminated by USFCo pursuant to this Section 10.03 in accordance with, and subject to the terms of, Schedule K to this BOT Agreement.

10.04 Termination – Remedies

(a) On termination by the USFCo pursuant to Sections 10.02 or 10.03, the USFCo shall be entitled to exercise any of the remedies identified in Sections 4.01 and 4.02 that are applicable in the circumstances of the performance failure leading to the termination.

(b) On termination by the Telecenter Service Provider pursuant to Section 10.03, the Telecenter Service Provider shall be entitled to payment of all USF funding installments payable pursuant to Schedule D for Project Implementation Milestones achieved prior to the effective date of termination as the Telecenter Service Provider's sole and exclusively remedy. Save as aforesaid, USFCo shall have no other, or further, liability for any breach by USFCo, or termination by the Telecenter Service Provider, of this BOT Agreement.

(c) The provisions of this Article Ten as to termination do not limit or restrict the rights of either party, to seek other remedies or take measures that may be otherwise available to it at law or equity in connection with the enforcement and performance of obligations under this BOT Agreement.

ARTICLE ELEVEN - GENERAL

11.01 Records, Audit and Inspection

(a) The Telecenter Service Provider shall maintain all records required for preparation of the reports described in Section 7.01. The USF Telecenter Service Provider shall also maintain complete records of its network plans, contracts entered into, expenses incurred in connection with establishment and operation of Telecenters, and any other records required for compliance with its obligations under this BOT Agreement.

(b) USFCo shall have the right to send its auditors or other appointed representatives, on at least 24 hours prior notice, to the Telecenter Service Provider's places of business for the purpose of auditing or otherwise inspecting the information and records of the Telecenter Service Provider pertaining in any way to the performance of this BOT Agreement.

11.02 Time of the Essence

Time is of the essence of this BOT Agreement.

11.03 Expenses

Each of the Parties hereto will pay their respective legal and accounting costs and expenses incurred in connection with the preparation, execution and delivery of this BOT Agreement and all documents and instruments executed pursuant hereto and any other costs and expenses whatsoever and howsoever incurred.

11.04 Public Announcements

No public announcement or press release concerning this BOT Agreement will be made by the Telecenter Service Provider without the prior consent and approval of USFCo. However, the Service Provider shall ensure to do adequate promotional activities to highlight the achievements in the USF area.

11.05 Benefit of the BOT Agreement

This BOT Agreement will inure to the benefit of and be binding upon the respective heirs, executors, administrators, successors and permitted assigns of the Parties hereto.

11.06 Entire BOT Agreement

The Request for Applications dated September 30th, 2016 shall be an integral part of this BOT Agreement and all obligations of the applicants/bidders therein shall be deemed the obligations of the Service Provider herein as if the same were set out herein, provided that in the event of conflict, the provisions of this BOT Agreement shall prevail. Subject to the foregoing, this BOT Agreement constitutes the entire BOT Agreement between the Parties hereto with respect to the subject matter hereof and cancels and supersedes any prior understandings and agreements between the Parties hereto with respect to the subject matter hereof. There are no representations, warranties, terms, conditions, undertakings or collateral agreements, express, implied or statutory, between the Parties other than as expressly set forth in this BOT Agreement (including in the Schedules to this BOT Agreement and in the said Request for Applications).

11.07 Severability

If any provision of this BOT Agreement is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability will attach only to such provision or part thereof and the remaining part of such provision and all other provisions hereof will continue in full force and effect. In the event of any such invalidity or unenforceability, the Parties agree to engage in good faith efforts to determine any amendments to the BOT Agreement required to preserve its intended purpose and effect.

11.08 Amendments and Waiver

No modification of or amendment to this BOT Agreement is valid or binding unless set forth in writing and fully executed by both of the Parties hereto and no waiver of any breach of any term or provision of this BOT Agreement is effective or binding unless made in writing and signed by the Party purporting to give the same and, unless otherwise provided, is limited to the specific breach waived.

11.09 Assignment

This BOT Agreement may not be assigned by the Telecenter Service Provider without the prior written consent of USFCo.

11.10 Subcontractors and Other Suppliers

The USF Telecenter Service Provider shall remain responsible for the due performance of this BOT Agreement regardless of its engagement of subcontractors or other suppliers.

11.11 Notices

Any demand, notice or other communication to be given in connection with this BOT Agreement must be given in writing and must be given by personal delivery or such other method as agreed to by the Relationship Liaison Committee, addressed to the recipient as follows: To USFCo:

USFCo
4th Floor, HBL Tower, Jinnah Avenue, Islamabad
Pakistan

Attention: Chief Executive Officer

To USF Telecenter Service Provider:

[insert corporate name and address]

Attention: *[insert title]*

or to such other address or individual as may be designated by notice given by either Party to the other. Any demand, notice or other communication given by personal delivery will be conclusively deemed to have been given on the day of actual delivery thereof.

11.12 Governing Law

(a) This BOT Agreement is governed by and construed in accordance with the laws of Pakistan.

(b) Notwithstanding anything to the contrary in this BOT Agreement:

(i) nothing in this BOT Agreement derogates from USFCo's rights or powers under the Act or any rules or regulations made thereunder;

(ii) the provisions of this BOT Agreement are subject to the Act, any rules or regulations made thereunder, and any License; and

(iii) for greater clarity, if and to the extent there are conflicts in the interpretation or application of any of the provisions of this BOT Agreement with the provisions of the Act, or any rules or regulations made thereunder, the provisions of the Act (and subject thereto, the rules or regulations made thereunder) shall prevail.

11.13 No Agency

The USF Telecenter Service Provider acknowledges and agrees that it is an independent contractor, that all persons employed or engaged by the USF Telecenter Service Provider in connection with the performance of its obligations under this BOT Agreement shall be the employees of the USF Telecenter Service Provider and not those of USFCo, that nothing in this BOT Agreement shall be construed to create any employment, agency, concession, partnership or joint venture relationship between the Parties, and that the USF Telecenter Service Provider shall act for its own account and at its own economic risk as independent contractor and that neither nor its employees or sub-contractors are authorized or empowered to act as agents for USFCo or to transact any business, incur obligations, make promises, give warranties or guarantees or otherwise bind or act in the name of USFCo or for its account unless otherwise expressly provided for in this BOT Agreement or by specific written instructions of USFCo.

ARTICLE TWELVE - COMPLIANCE WITH ENVIRONMENTAL AND OTHER LAWS

It shall be the responsibility of the USF Telecenter Service Provider to comply with all Federal, provincial or local environmental and other laws, rules and regulations applicable in Pakistan and affecting the performance of USF Service Provider's obligations under this BOT Agreement.

[end of BOT Agreement]

IN WITNESS WHEREOF the Parties have executed this BOT Agreement.

USFCo

Per:

[Name & Signature], Chief Executive Officer

SIGNED, SEALED AND DELIVERED
(in the presence of:)

Witness (1):

[Full name, NIC & Signature]

Witness (2):

[Full name, NIC & Signature]

USF Telecenter SERVICE PROVIDER

Per:

[Name, Title & Signature]

SIGNED, SEALED AND DELIVERED
(in the presence of:)

Witness (1):

[Full name, NIC & Signature]

Witness (2):

[Full name, NIC & Signature]

SCHEDULE A

Broadband Services: Availability and Quality Specifications

1. Broadband Services

(a) The USF Service Provider shall provide Broadband Services through Optic Fiber Cable in all of the Telecenters as identified in Schedule C. For the purpose of this Schedule A:

“**Broadband Services**” means an always-on service for the provision and delivery of Internet Services, conforming to Internet Protocols, Internet at Broadband Data-Rates in accordance with the USF Broadband Quality of Service requirement.

(b) For the purposes of this Schedule A, Broadband Services shall be provided through Optic Fiber Cable; however the financial implications of using the technology beyond USF support should not compromise the sustainability of Telecenters. The following defined terms are applied in the service description:

“**Broadband Data-Rate**” means for each Telecenters, a bandwidth of 10 Mbps shared in the downstream (towards the end user) direction with a concurrent minimum delivery rate of 4 Mbps in the upstream (away from the end user) direction; with unlimited volume of data downloaded or uploaded

“**Internet Protocol**” means any set of communication standards defined by the international body presently known as the Internet Engineering Task Force or its successors from time to time or which are in common usage from time to time for the Internet; and

“**USF Broadband Quality of Service**” has the meaning set out in this Schedule-A.

(c) **Internet Service** – The USF Service Provider must offer Internet Service. Each Telecenter of this service shall be provided with access to the Internet:

- i) for both incoming and outgoing Internet traffic;
- ii) available from one or more computers at the Telecenter premises;
- iii) at the Broadband Data-Rates; and
- iv) based on appropriate ITU/IETF standards.

(d) **Internet Applications Service** –

Each Telecenter shall be provided with access to common Internet applications, including:

- a) “email service”, meaning a service that provides subscribers with an e-mail address from which they can receive and transmit e-mails worldwide. The service may be provided either through email servers at the USF service provider’s premises or through email servers of third parties on the global Internet.
- b) “web browsing service”, meaning a service that allows subscribers to access information on the World Wide Web;
- c) “file transfer service”, meaning a service that provides subscribers with the ability to download files from Internet sites;
- d) “Domain Name System (DNS) service”, meaning a service that allows subscribers terminals to translate domain names to Internet Protocol addresses;
- e) Virtual Private Network, Intranet and other relevant services that enable ecommerce and on-line banking applications; and
- f) real-time video streaming, chat and other similar services supporting on-line education.

(e) **Telecenter Technical Support** – Each Telecenter shall be provided with technical support in accordance with the following:

- i) initial and ongoing technical support, which will assist users:
 - a) in configuring computer hardware and software settings as necessary in order to use the Internet Services; and
 - b) in resolving technical problems that they experience when using the Internet Services.
- ii) A toll-free telephone number (the “Technical Support Hotline”) that Telecenter operator can call to report any trouble they are experiencing with the service and obtain real-time technical assistance to resolve the problem they are experiencing.

2. Service Availability

(a) The Service Provider shall ensure that the Broadband Services are maintained and continued, and meet applicable service standards and quality of service requirements, throughout the term of the Agreement.

(b) The availability of the Telecenters shall be effectively advertised to the public in the local area(s). Telecenter Service Provider shall also install an illuminated sign outside the Telecenters with name of the Service Provider and USFCo.

3. Quality of Service Standards

In addition to the service requirements identified in this Schedule A, the USF Broadband Services shall be provided in accordance with all quality of service requirements specified in the USF Service Provider’s Licenses, and any other quality of service requirements established by the PTA.

| Parameter | Required Limits | Explanation |
|---------------------------|------------------------------|---|
| Download Speed | $\geq 75\%$ of 10MB = 7.5 MB | Download Speed greater than 75 % of the required data rate |
| Upload Speed | $\geq 75\%$ of 4MB = 3 MB | Upload Speed greater than 75 % of the required data rate |
| RTT(Local) | ≤ 70 ms | Round Trip (RT), End-to-End latency (ms) with a packet size of 32bytes within the country. |
| RTT(International) | ≤ 350 ms | Round Trip (RT) End-to-End latency (ms) on international connectivity/links. |
| Packet Loss | $\leq 1\%$ | Tested over a minimum of 100 packets |
| Jitter | ≤ 15 ms | Jitter= Expected Value of $(RTT_{avg} - RTT)/N$. Jitter shall be calculated using RTT. RTT_{avg} is the average RTT of N number of packets. The minimum-samples shall be $N=100$. |

4. Optical Fiber Cable Laying Specifications

Attached at schedule A-1

Schedule A1

USF Telecenter Project, “Fiber Optic Connectivity”

Technical Specifications

A. Optical Fibre Cable Specifications

1. Introduction

This specification covers the minimum standards and requirements for the optical fiber cables to be used in the USF telecommunications networks of Pakistan. The F.O cable shall be direct buried type, aerial cable type or hauled into ducts type as may be determined after survey by the Bidder and its characteristics shall be compatible with the existing F. O cables in the network.

2. Definitions

Definitions applied throughout this specification are as follow: -

- i) "Fiber"
The drawn coated optical fiber
- ii) "Primary Coating"
The first layer of inert material applied to the fiber immediately after being drawn from a perform and can be readily removed for splicing purpose without damage to the fiber.
- iii) "Strength Member"
The component of the assembled cable which is designed to provide sufficient strength to the cable to ensure that the fibers are not strained beyond their permissible limits
- iv) "Wrapping"
Non-metallic barrier tape, which surrounds the cable core
- v) "Fiber Core"
The central region of the optical fiber through which most of the optical power is transmitted.
- vi) "Cladding"
The dielectric material of an optical fiber surrounding the core with a different refractive index from core
- vii) "Non-Circularity of the Cladding Surface"
The difference between the maximum cladding surface diameter (D_{max}) and minimum cladding surface diameter (D_{min}) divided by the nominal cladding diameter (D).
- viii) "Core / Cladding Concentricity Error"
The distance between the core centre and the cladding centre divided by the core diameter
- ix) "Refractive Index Profile"
The distribution of the refractive index along the diameter of an optical fiber
- x) "Attenuation Coefficient"
It is the attenuation of the fiber per unit length. It is expressed in dB/Km.
- xi) "Chromatic Dispersion"

The spreading of light pulse per unit source spectrum width in optical fiber caused by the different group velocities of different wavelengths composing the source spectrum

- xii) “Cutoff Wavelength”
The cutoff wavelength is the wavelength at which the mode ceases to propagate in the fiber.
- xiii) “Chromatic Dispersion Coefficient”
The Chromatic dispersion per unit source spectrum width and unit length of fiber, it is expressed in ps/nm.km.
- xiv) “Zero Dispersion Wavelength”
The wavelength at which the chromatic dispersion vanishes
- xv) “Zero Dispersion Slope”
The slope of the chromatic dispersion coefficient versus wavelength curve at zero dispersion wavelengths
- xvi) “Polarization Mode Dispersion (PMD)”
Dispersion of an optical signal due to the different polarizations of light traveling at different speeds through optical fiber

3. Optical Fiber Cables

- a) All optical fibers shall maintain their geometrical properties for the required life, 25 years of the cable.
- b) The value of the mode field diameter shall be within 8.6-9.5 μm . The mode field diameter deviation shall not exceed $\pm 0.7\mu\text{m}$.
- c) The mode field concentricity error shall not be more than 1.0 μm .
- d) The cladding diameter shall be $125 \pm 1\mu\text{m}$.
- e) The cladding non-circularity shall not exceed 2.0%.
- f) Core/clad concentricity error shall not exceed $0.8\mu\text{m}$.
- g) Macro bending loss shall be measured by forming 100 turns of fiber on a mandrel of 75mm diameter. The attenuation increase shall not exceed 0.5 dB at 1550 nm.
- h) The minimum bending radius shall not be less than 10-12 times outer diameter of the cable
- i) No jointed fibers are allowed in cable according to this specification.
- j) The diameter of the coating shall be $250 \pm 15 \mu\text{m}$.
- k) Fiber optic cable shall be supplied in nominal lengths of four (4) km
- l) The splice loss of 0.02dB for SM is desirable however; maximum value of splice loss shall not exceed 0.05 dB for SM fiber.
- m) The Optical Fiber Cable shall qualify International test standards for Tensile Test, Temperature Cycling Test, Crush Strength Test, Impact Test ,Repeated Bending Test and Torsion Test

4. Optical Transmission Requirements

i) Optical Attenuation Properties

The attenuation properties of the optical fibers shall conform to the following values specified below.

| Design Parameter | Maximum Values at room temperature |
|--|------------------------------------|
| Wavelength of Light (nm) | 1285-1330 1310 1550 |
| Attenuation for individual Fibers (dB/km) | $\leq 0.4 \leq 0.38 \leq 0.25$ |
| Average attenuation for the Cable (dB/km) | $\leq 0.38 \leq 0.35 \leq 0.21$ |

ii) Cutoff Wavelength

The F.O Cable cutoff wavelength shall not exceed 1260 nm.

iii) Chromatic Dispersion

Chromatic dispersion shall not exceed 3.5 ps/nm.km between 1285 nm and 1330 nm and 18 ps/nm.km at 1550 nm.

iv) Attenuation Uniformity

The attenuation of the fiber shall be distributed uniformly along the fiber length such that there are no localized discontinuities in excess of 0.1 dB at any of the design wavelengths.

v) Polarization Mode Dispersion

Polarization mode dispersion (PMD) coefficient of cable shall not exceed 0.5ps/ $\sqrt{\text{km}}$ for an electrical regeneration section of 400 km of installed fiber. Differential Group Delay (DGD) shall not exceed 10ps for a maximum section length of 640 km.

B. Optical Fibre Cable Laying Specifications

1. Introduction

This specifies the technical parameters for laying or installation of Optical Fiber Cable in USF defined areas of Pakistan as stated in Schedule C to BOT Agreement.

2. Scope of Work

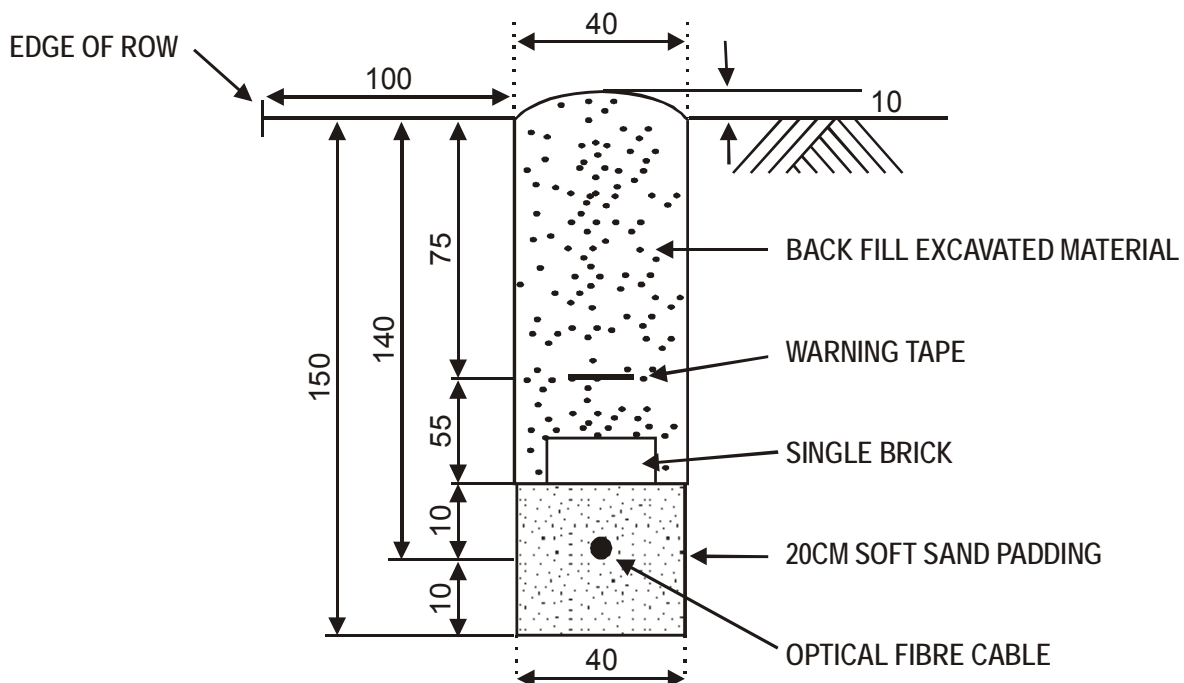
This covers laying of O.F cable as direct buried or ducted or as aerial installation as the case may be, including all civil works, in different terrains throughout the defined USF areas. The provision of sand, bricks, PVC pipes / HDPE pipes /or equivalent , GI pipes sub ducted with PVC/ HDPE pipes /or equivalent, bridge attachments, cement, slabs, route indicators, Posts, accessories and materials, cable trays, machinery, transport ,Joint enclosures, ROW and test equipment etc shall be the responsibility of the USF Service provider. In city areas the underground duct system shall be built with necessary hand holes for the laying of OFC. In hilly areas or other locations not suitable for direct buried or ducted type F.O cables, aerial fiber optic cable may be used with proper and secure installations.

3. Direct Buried Optical Fiber Cable

- a. Cable section lengths must allow for looping the cable at splice closure locations.
- b. Care should be taken to ensure that cable attachment systems are specifically designed for optical fiber cable and do not transmit stress to the fiber
- c. Care is required to counter cable movement in steep approach sections or vertical sections. This type of movement which can be produced by traffic vibrations could lead to excessive fiber strain and suitable cable restraints should be used
- d. Where a trench method is used, back filling materials and practices may require particular consideration so that fiber strain limits are not reached during this operation.

3.1 Excavation of Trench

- 3.1.1 The trench shall be excavated to a depth of 1.5m except rocky areas; the trench shall be graded to enable the cable to be laid on an even plain. The width of the trench shall be 40cm at the top and 35-40cm at the bed. The depth reference for the trench shall be taken from the road surface or the normal earth surface level which one is lower.
- 3.1.2 A bed of sand 10 cm deep shall be laid along the bottom of the trench and cable shall be placed at the centre of trench.
- 3.1.3 A sand bed 10 cm deep shall be provided above the cable.
- 3.1.4 Bricks shall be placed transversally on the cable with no space between the bricks. See Fig.1



Note: All dimensions are in cm.

Fig.1. Direct Buried Cable

3.2 Standing Water Area

There will be locations where still water ponds fall along the trench alignment. In such area, the following procedure shall be followed.

- 3.2.1 If the height of water is 1 meter or above and is not seasonal water but permanent then cable shall be laid directly on the surface of the earth and slabs with cement sand ratio 1:8 (100x50x20cm bag size) shall be placed longitudinally. See Fig.2

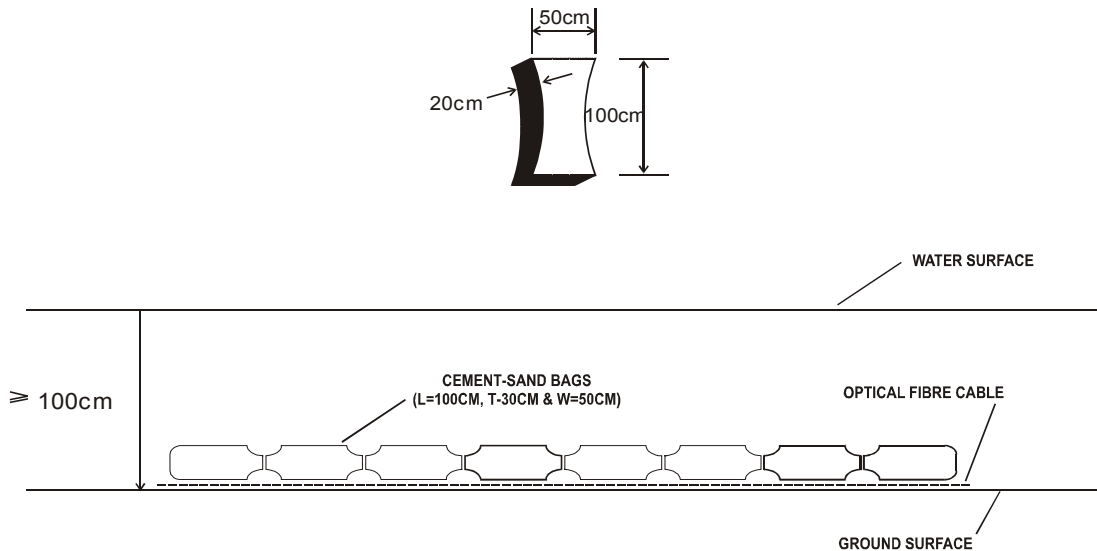
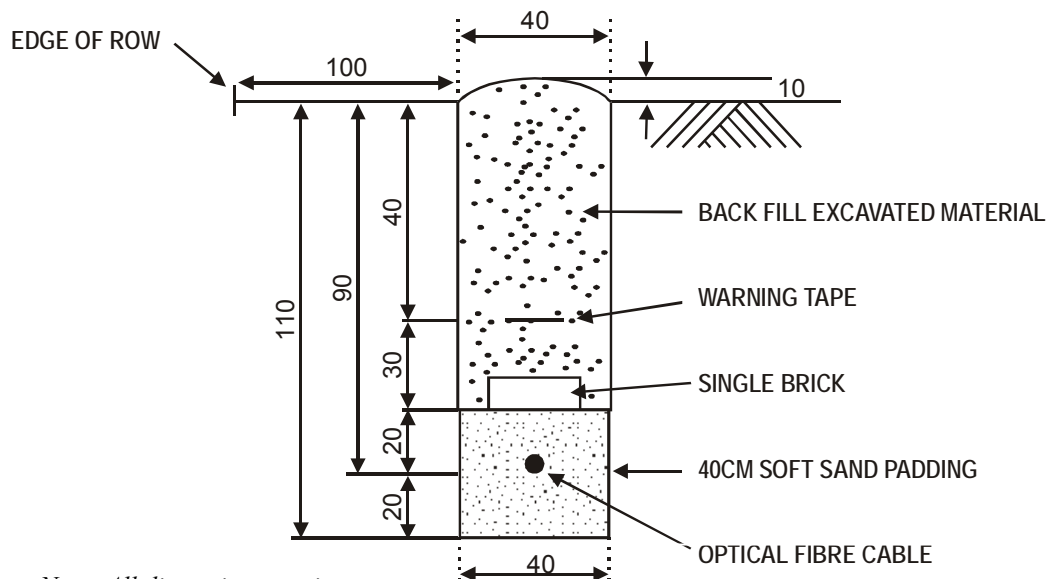


Fig.2. Sand-Cement Bags

3.3 Rocky Soil

- 3.3.1 In rocky area, the trench depth shall be 110 cm, width 40 cm at the top and 35-40 cm at the bed with all the sharp edges of rock removed. Sand cushion 20cm thick above and below the cable shall be provided. Bricks shall be placed as in the case of normal soil. See Fig.3



Note: All dimensions are in cm.

Fig.3 Direct Buried Cable in Rocky Area

- 3.3.2 There will be situations where it is not practical to excavate in extremely hard rock to a depth of 1.1 meter. For such areas, the depth of the trench may be kept as 90 cm including 10 cm concreting at the top.

3.4 GI Pipe sub ducted with PVC/HDPE or equivalent

Throughout the execution of the project GI pipe sub-ducted with PVC pipe / HDPE or equivalent shall be installed on bridges, culverts that require attachments, under rivers, railway lines, highways, canals, rain washable area, and heavy traffic passing area e.g. Petrol pumps etc, In all three cases the minimum separation between the existing service and the Optical fiber Cable shall be 100cm. Under no circumstances the cable shall be installed above an existing service.

3.5 Warning Tape

A suitable yellow PVC tape 0.5 mm thick and 100 mm wide shall be placed 30 cm above the installed optical fiber cable for indication to the excavators of the presence of optical fiber cable with some warning note.

3.6 Route Indicators

Route markers are to be installed along the cable route at locations visible from the previous marker or 100 meters apart and at turning points where cable route changes direction.

3.7 Cable Joint Pit Markers

Cable Joint Pit markers are to be installed at all joint pit locations. It is important that all locations of joint pits are recorded and have a reference location measurement.

3.8 Slabs (50X30X10CM AND 100X30X10CM)

The slab of 50x30x10cm shall be used in a joint pit. The slab of 100x30x10 cm shall be used along the route at small culverts, loops at the bridges and over cable laid along places where there could be damage to the cable.

4. Ducted Optical Fiber Cable

FO cable shall be laid in ducts with two inches diameter, 2 way PVC pipes /**HDPE or equivalent** along with appropriate HHs. Minimum wall thickness shall not be less than 3.5mm.

On completion of the duct line between any two jointing chambers, a cylindrical brush and an iron test mandrel shall be passed once through each way to test the duct and remove any foreign matter which may have entered. Pressure testing for duct ways shall be carried out. After the last joint has been completed in each way, pressure plugs shall be inserted at each end and tightened.

Section 3 to this Technical Specifications report lists direct buried cable laying specifications. Same specifications, except the bricks arrangement, shall be followed for Duct laying. In areas which may be considered as sandy areas, use of sand may not be necessary for laying of ducts. A careful study shall be carried out for the laying of ducts to determine the use of sand & bricks wherever necessary.

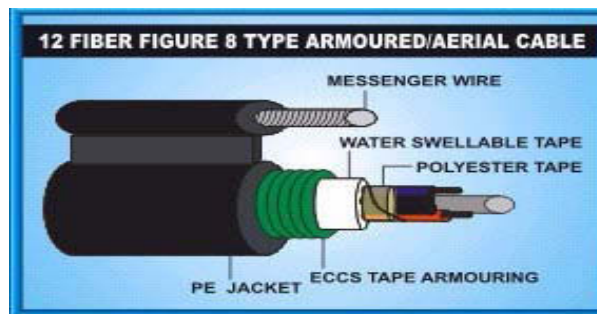
5. Aerial Fiber Optic Cable

The fiber optic cable is a high capacity transmission medium which can have its transmission characteristics degraded when subjected to excessive pulling force, sharp bends, and crushing forces. These losses may not be revealed until long after installation is complete. For these reasons extra care must be taken during the entire installation procedure.

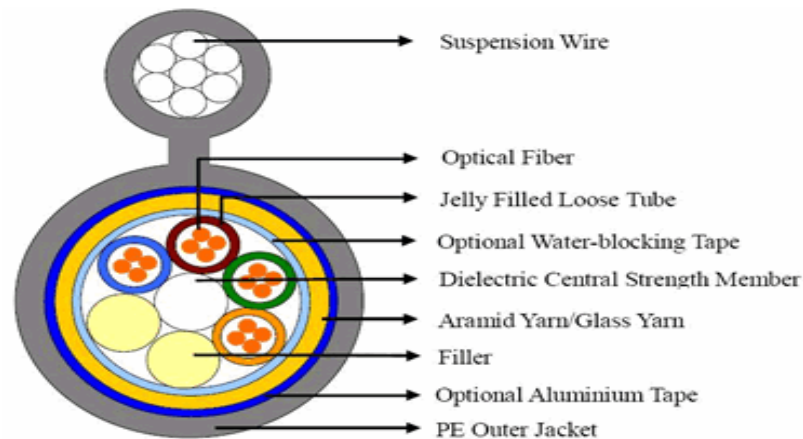
The following information shall be used as a basic guideline for the installation of aerial fiber optic cable. It is for the personnel having prior experience in the planning, engineering, or

placement of aerial cables as this does not cover all aspects of fiber optic aerial cable placement.

1. A self-supporting fiber optic cable includes messenger and carrier sections and at least one interconnecting web.



2. In order to protect the optical fiber from tensile forces and to facilitate mid-span access, the carrier section can have an over length and includes a strength member.
3. A site survey of the entire route should be performed before cable placement begins. The survey will verify construction methods; special tools required and splice locations. The characteristics of the ground along the route, trees or other obstructions shall be noted. Clearance issues over roadways, driveways, etc. need to be taken into account before cable placement begins. It will also qualify the condition and size of the existing poles to be used, the condition and size of the existing pole's anchors and reveal the need for any new poles before placement operations begins.
4. Safety cones, signs, flags, etc., should be used to channel traffic where required.
5. The fiber optic cables should occupy the uppermost available communications space on a pole, wherever possible, due to having less weight and sag than copper cables.
6. Sufficient clearances must be maintained between fiber optic cables and electrical power cables on joint-use poles, as per Electrical Safety Codes. The minimum clearance shall be one meter.
7. Splice locations shall be chosen to allow for the longest possible continuous cable spans and a minimum number of splices.
8. During cable installation, special care should be taken to not violate the minimum cable bend radius or maximum rated cable tensile load. For standard loose tube cable designs the minimum bend radius under dynamic conditions (during installation) is 15 times the cable outer diameter. The minimum bend radius under static conditions (installed) is 10 times the cable outer diameter.
9. Aerial installation should never be done in wet conditions.
10. Fiber optic cables (including all dielectric cables) shall be properly grounded when installed in the vicinity of high-voltage power cables.
11. Each jelly filled tube may contains 4 -12 fibers. Solid or stranded steel coated with polyethylene may be used as central strength member. Fiber glass reinforced plastics (FRP) may be used as central strength member if non metallic construction is required. Either aramid yarn or fiber glass shall be wound around the tube to provide physical protection and tensile strength.
12. Water blocking materials shall be filled in the interstice of the cable core, core wrapping layer/water blocking tape.
13. The un-armored type of aerial fiber optic cable is given below: The armored type normally have steel armor instead of aluminum tape beneath outer jacket.



Unarmoured Type

14. As fiber optic cables have to be pulled into place through ducts (outdoor) or conduits (indoor), pulling eyes are to be attached to the strength members or cable outer jackets.
15. Cable structures shall protect fibers from moisture (outdoor cables), extreme temperature (aerial cables) and influx of hydrogen into the fiber.
16. The temperature range during installation and operation shall be as follows:
 - Installation: -30°C to $+60^{\circ}\text{C}$
 - Operating: -40°C to $+70^{\circ}\text{C}$
17. The amount of sag is dictated by clearance and tension requirements. The maximum sag shall be as follows:
 - Installation: 1 % of pole to pole distance (span length)
 - Long term installed: 3 % of pole to pole distance (span length)
18. Some extra cable may be left at the beginning and at the end of the cable run. Also, extra cable should be placed at strategic points such as junction boxes, splice cases and cable vaults. Extra cable is useful should cable repair or mid-span entry be required.
19. The cable maximum pulling tension is not to be exceeded during cable installation. In general, most cables designed for outdoor use have a strength rating of at least 600 lbs. After cable placement is complete the residual tension on the cable should be less than this value.
20. Use the method of attachment that pulls most directly on the strength material—without stressing the fiber. With indirect attachment, pulling forces are distributed over the outer portion of the cable structure.
21. The leading end of the cable should be sealed to prevent intrusion of water or other foreign material while pulling.
22. Installation procedures for open placement of fiber optic cables are the same as for electrical cables. Care should be taken to avoid sudden, excessive force so as not to violate tensile load and radius limits. Sharp bending and scraping at entrances and covers should be avoided.
23. Proper installation standards shall be followed.

C. Fibre Optic Line and Multiplexing Equipment

1. General

- i. The Fibre Optic Line and Multiplexer Equipment shall comply with all relevant latest ITU-T / ETSI recommendations.

- ii. The minimum capacity of the Fibre Optic Line and Multiplexing Equipment for each F.O Link shall be designed as specified in the Schedule B to BOT Agreement.
- iii. All equipment supplied shall be new and the manufacturer's latest generation of production equipment.
- iv. The operation and maintenance functions of F.O transmission equipment shall be manageable through LCT and NMS for which all necessary interfaces and features shall be provided.
- v. The engineering order wire shall be provided at all ADM and terminal locations
- vi. The Fibre Optic equipment shall be upgradeable to higher level without any major changes.
- vii. The Fibre Optic equipment shall be compatible and integrate smoothly with the existing F.O Equipments in the network.
- viii. The configuration of F.O system shall be quite flexible as Terminal or ADM.
- ix. The protection of equipment level shall be realized by the redundancy hot swap protection for the units such as electrical interface, timing and cross-connection.
- x. The synchronization features in equipment shall conform to the ITU latest standards.
- xi. The Jitter and Wander characteristics shall conform to ITU latest standards.
- xii. The System supplied shall support the Next Generation Features
- xiii. It shall operate at a wavelength of either 1310nm or 1550nm and shall be compatible with FO cable of this project.
- xiv. An automatic laser shutdown function shall be provided to switch the laser off in case of a break in the optical path.
- xv. It shall have capability for direct inter-working with DWDM equipment without intermediate wavelength adapters.

2. Interfaces

Following interfaces shall be supported by the F.O equipment corresponding to the capacities designed for the network and as applicable in compliance to latest ITU recommendations.

- i) 2 Mb/s Electrical Interface
- ii) 34 Mb/s Electrical Interface
- iii) 45 Mb/s Electrical Interface
- iv) 140 Mbit/s electrical interfaces
- v) 155 Mbit/s electrical interface
- vi) Optical Interface, 155.520 Mbit/s.
- vii) STM-4 Optical Interface,

2.1 Ethernet/Gigabit Ethernet Interface

The offered equipment shall support the Fast Ethernet. It shall also be able to provide related technologies like Gigabit Ethernet, Resilient Packet Ring (RPR), Generic Framing Protocol (GFP), Virtual Concatenation (VCAT) and LCAS (Link Capacity Adjustment).

2.2 Auxiliary Interfaces

Several data interfaces shall be available as follows:

- 2.2.1 Minimum 1 x 2-wire analogue telephone interface, providing multiplex section order-wire communication at 64 Kb/s co-directional and telephone jack.
- 2.2.2 Minimum 4 x 64 Kbit/s co-directional data interfaces in compliance with ITU-T Rec. G.703 + 2 x 2 Mbit/s G.703 + 4 x RS-232 + 4 x V11 async.
- 2.2.3. Synchronization Interface : Clock input / output interface
- 2.2.4 D1~D3 and D4~D12 for network management.

2.3 Synchronization Interface, 2048 KHz

The electrical characteristics of the input and output of the 2048 kHz clock synchronization interface shall conform to latest ITU-T Rec. with impedance of 75 ohm unbalanced or 120 ohm balanced.

2.4 G.703 64 Kbit/S Data Channel Interface (Auxiliary Channel)

The electrical characteristics of the G.703 64 kbit/s interface shall conform to ITU-T Rec. G.703

2.5 13.8V.11 64 Kbit/S Data Channel Interface (Auxiliary Channel)

The electrical characteristics of the V.11, 64 kbit/s interface shall conform to the specifications given in ITU-T Rec. V.11.

3. Functional Characteristics

- a) The aggregate interface unit shall support MSP, BSHR and SNCP configurations.
- b) The LINE SYSTEM shall provide 622 Mbit/s (STM-4) optical tributary interfaces.
- c) The matrix switching shall be non-blocking for all connection types. The maximum tributary capacity can be divided into four separate tributary groups. Full trib-trib connectivity shall be available within the same tributary group. The cross-connect matrix units shall support (1+1) protected configuration.
- d) The synchronization interface shall provide 2048 kHz clock input and output at 120 ohms and 75 ohm. The unit shall support 1+1 protected configuration and shall provide the following facilities and functions:
- e) The synchronization unit shall enable the Line System to be synchronized from any one of the following sources:
 - i) 2048 kHz sine or pulse external clock source (e.g. station clock). Any STM-1 (155.520 Mbit/s) tributary signal
 - ii) Any STM-4 (622.080 Mbit/s) tributary signal
 - iii) Internal clock oscillator (free-running mode).
- f) Access to a 64 kbit/s G.703 or V.11 data channel using byte F1 in the regenerator section overhead (RSOH) shall be available on the Line System.

- g) The Line System shall have a controller unit that shall be responsible for the management of the Line System. This unit shall also include the management via the F and Q-interfaces.
- h) It shall be possible to perform full remote configuration and control of any Optical Line Equipment connected to the local Optical Line Equipment using the Embedded Control Channel (ECC) of either optical aggregate. Remote operation of the system via a serial link by using a modem, or via an Ethernet link shall also be possible.

4. System Configurations

The following system configurations must be supported by the Line System:

- i) Terminal Multiplexer Mode
- ii) Add-Drop Multiplexer Mode
- iii) Regenerator Mode

5. System Applications

The Line System shall be used in the following applications:

- i) Point-To-Point
- ii) Chain Topology
- iii) Ring Topology

6. Protection Switching

- i) Multiplexer section protection switching
- ii) Sub-Network Connection Protection (SNC/P)
- iii) Bi-directional Self Healing Ring (BSHR) Protection

7. Disaster Recovery

The equipment shall have built-in recovery mechanisms to enable it to become operational in as short a time as possible following unforeseen failures, and in particular the following characteristics:

8. Clock Reference

- a) The synchronization subsystem should provide the timing reference required by all components in the network element. It should accept synchronization inputs from a number of sources:
 - (i) STM-N lines
 - (ii) 2 Mb/s traffic ports
 - (iii) 2 MHz / 2 Mbit/s external input
 - (iv) internal oscillator
- b) Automatic selection of one of such sources shall be achieved by using priority criteria. Also manual selection shall be possible.

D. Network Management System (NMS).

The NMS shall support management functions according to the latest relevant ITU-T Rec.

- a) The NMS shall be able to manage Multiplexes, Line Equipment Terminals and ADM.
- b) The NMS shall support ring, multi-ring, chain, point-to-point, mesh and complex topologies.
- c) Cross connection management function shall be supported by the NMS.
- d) NMS shall support protection criteria/procedure for the port connection and paths in the network.
- e) If the USF Service provider has the existing NMS , that can be up graded to manage the F .O equipment of this project.
- f) The necessary hard ware , soft ware , data channels for the connectivity and commissioning of NMS with NEs is included.
- g) The NMS shall perform the Performance Management, Fault Management, Configuration management and Security management.
- h) This management function shall provide reports and evaluation for communication equipment status. The performance management shall have functions like Performance Data Period, Performance Event Selection, Performance Monitoring, Performance Query, Performance Threshold Setting, Performance Analysis, Performance Reporting and Database Management
- i) The NMS shall provide the capability to monitor all transmission facilities in real time.
- j) The NMS shall provide functions for the remote control and configuration of Fiber Optic equipment according to the latest relevant ITU-T Rec.
- k) NMS shall support and provides the functionalities to set up, initialize and modify the Fiber Optic equipment configuration parameters.
- l) The NMS shall support the management functions for the configuration and initialization of the F.O equipment and cards in the Network Elements .
- m) NMS shall provide the security management function to prevent network resources and equipment from unauthorized user's access
- n) The NMS supplied shall be fully compatible with the Central Network Operations Center (NoC) and fully support all the relevant protocols .

E. Key Performance Parameters for Fibre Optic Cable

The USFCo Technical Auditor may perform sample testing of the following tests of Optical Fiber cable and OSP for confirming compliance to the relevant technical specifications.

- (i) Insertion Loss Test

Section: _____ A-End: _____

B-End: _____

| Fiber No: | 1310/1550nm | | A | 1310/1550nm | | B | Average Loss (A+B)/2 |
|-----------|-------------|---------|-------------------|-------------|---------|-------------------|----------------------|
| | TX (dB) | RX (db) | Section Loss (dB) | TX (dB) | RX (dB) | Section Loss (dB) | |
| | | | | | | | |
| | | | | | | | |

| Requirements: | 1550nm | 1310nm |
|--------------------------------|--------|--------|
| Cable Attenuation per km (dB): | ≤0.25 | ≤0.38 |
| Average Attenuation (dB): | ≤0.21 | ≤0.35 |
| Maximum Splice Loss (dB) | ≤0.05 | ≤0.05 |
| Maximum Connector Loss (dB) | ≤0.5 | ≤0.5 |
| Total Number of Connectors: | | |
| Total Section Loss (dB): | | |

(ii) Fiber Optic Cable Test Data Sheet
(End to End Test with OTDR)

Route:

Total Optic Fiber Length (km):

Wavelength (nm):

| Fiber No. | Fiber Color | From | To | Total Loss | Average Loss (db) |
|-----------|-------------|------|----|------------|-------------------|
| | | | | | |
| | | | | | |

CIVIL WORKS

Section Name: _____

The civil works executed for the laying of Optical Fiber Cable shall be inspected for sample testing by the USF Technical Auditor to verify compliance to relevant Technical Specifications.

| Cable Length | From: | To: | Remarks |
|--------------|-------|-----|---------|
| | | | |

AERIAL WORKS

The works executed for the installation of aerial Optical Fiber Cable shall be inspected for sample testing by the USF Technical Auditor to verify compliance to relevant Technical Specifications.

F. Key Performance Parameters for Fibre Optic Equipment

The USFCo Technical Auditor may conduct sample testing of the tests performed during commissioning in addition but not limited to the following tests to verify the performance of the fiber optic equipment.

| S.# | Description of Item | Accepted Standard | Remarks |
|-----|--|-------------------------------|---------|
| 1 | Protection Switching (While removing the active Cross switch board, the standby board will take over the service automatically) | Switching time < 50 ms | |
| 2 | 15-Minute Bit Error Performance for E1 or E3 | No bit error is detected | |
| 3 | 24 hours BER Test | <10 ⁻¹⁰ bit errors | |

SCHEDULE B-1

Telecenter Equipment

USF Service Provider shall provide the Equipment elaborated in the schedule.

1. Telecenter

(a) The USF Service Provider shall establish and maintain Telecenter(s), by supplying and installing/commissioning Telecenter Equipment, providing basic usage training, providing the USF Broadband Services and constructing the Telecenters, at the designated location mentioned in Schedule C.

(b) The Telecenter shall be:

(i) equipped with at least twenty (20) All-in-One computers connected to each other in a LAN, connected to at least one 3-in-1 multifunction laser printer and multimedia projector, available for public access to the Broadband Services and Web Applications;

(ii) connected through the LAN to the USF Service Provider's Broadband Service in the Telecenter with at least one Customer Premises Equipment (CPE) for access to Broadband Services;

(iii) supplied with Alternate Energy solution (including UPS capability) with enough capacity to provide backup time to Computers, lights, fans and other essential elements with a 5 Kwh capacity with a backup of six hours ;

(iv) 5 Years comprehensive extended warranty for all equipment with parts and services.

(c) Telecenter Service Provider shall conduct basic usage training of at least two resources for each Telecenter. The training program shall consist of at least:

- (i) Basic usage of computer and installed applications;
- (ii) Basic usage of Internet, such as, web browsing and email access
- (iii) Basic configuration and trouble shooting.
- (iv) First level of maintenance

2. Equipment Quantities for Telecenter:

Each Telecenter mentioned in Schedule C of BOT Agreement shall have following quantities as per the specification laid in this Schedule B1:

| S. No. | Equipment | Quantity |
|--------|-----------------------------|----------|
| 1 | All-in-One Computers | 20 |
| 2 | Multifunction Laser Printer | 1 |
| 3 | Wireless Router | 2 |
| 4 | Multimedia Projector | 1 |
| 5 | Queue Management System | 1 |
| 6 | CCTV System | 1 |
| 7 | Computer Tables | 25 |
| 8 | Computer Chairs | 30 |
| 9 | Waiting area chairs (seats) | 60 |
| 10 | Solar Solution | 1 |
| 11 | Firefighting equipment | 1 |
| 12 | Fiber Optic System | 1 |

3. Specification of Computers, Printers, Wireless Router, Network Switch and Multimedia Projector etc.:

(a) All-in-One Computers (20)

All computers for Telecenter shall be branded All-in-One with the following minimum specifications:

- Computer Type: All-in-One
- Processor: 6th Generation Intel® Core™ i5 or above.
- Cache Memory: minimum 3M Cache
- RAM: minimum 4GB
- Internal Storage: 1TB
- Optical Drive: DVD +RW
- Display: minimum 19"
- Video Card: HD Graphics
- Wireless: IEEE 802.11 b/g/n standards
- Ethernet: RJ-45 (10/100/1000 Ethernet)
- Standard USB Keyboard, Mouse, Integrated Audio, necessary Accessories etc.
- Software: Pre-Installed Windows latest version (Backup & Recovery), Standard Office Suite, and Antivirus.

All computers for Telecenter must be equipped with an Internet filtering system to be controlled at both Telecenter Service Provider and user end, capable of effective operation in accordance with relevant USFCo and government policies.

All software in the computers shall be licensed. USF Service Provider shall be responsible for acquiring licenses of all licensed software.

(b) Multifunction Laser Printers (1)

3-in-1 multifunction laser printer with the following minimum specifications:

- Multi-Function (Black & White): Printer, Copier, Scanner
- Network Enabled: Fast Ethernet and WiFi
- Print Speed: minimum 21 ppm
- Print Resolution: minimum 600*600 dpi
- Printer Memory: minimum 128 MB

(c) Wireless Routers (2)

Wireless Routers with the following minimum specifications:

- a) IEEE 802.11 b/g/n standards
- b) 1 WAN and 4 LAN Ports, Gigabit Ethernet connections on both WAN and LAN ports
- c) DHCP Server, DHCP Client, DHCP Relay, NAT, PAT, NAPT
- d) Dual-stack IPv4 and IPv6
- e) Port-based and 802.1Q tag-based VLANs support
- f) Static routing
- g) Routing Information Protocol (RIPv1 and RIPv2)
- h) Inter-VLAN routing
- i) Access Control
 - IP-based access control list (ACL)
 - MAC-based wireless access control
 - Configurable Firewall with Stateful Packet Inspection (SPI)
 - Peer-to-peer control
 - Secure Management
 - Wi-Fi Protected Access (WPA) and Advanced Encryption Standard (AES) (WPA2)
 - Simple Network Management Protocol (SNMP)
- j) Certification
 - FCC Class B
 - CE

(d) Multimedia Projector (1)

Multimedia projector with the following minimum Specifications:

- Resolution: 1024 × 768 pixels
- Brightness: Minimum 3000 lumens
- Lamp: 245Wx1, lamp replacement cycle (lamp power: 3,000 hours)
- Projector Screen: Wall mounted 9ft x 12ft (W x H).

(e) Network Switch (1)

Network switch projector with the following minimum Specifications:

- 24 Ports (10/100/1000 Ethernet)
- 4 Gigabit Uplink Ports (2 SFP and 2 Ethernet)
- RAM: min 64MB or above
- Flash Memory: min 32MB or above
- Features:
 - DHCP
 - ARP Support
 - Load Balancing
 - VLAN Support
 - IPv4 and IPv6 Support
 - MAC Address Filtering
 - SSL Encryption Support

All computers, printer, wireless router, network switch, multimedia projector etc. must be of renowned and verifiable brands with local presence in Pakistan.

4. Specification of Furniture:

(a) Computer Tables (25)

1. The furniture shall be robust and rugged.
2. Computer table of size: 90 cm wide* 60 cm deep * 75 cm high made of minimum of 16 mm pre laminate particle board. The height of the table, excludes the partition on the side of the table.
3. Top of table finished with pre laminated particle board and edge banding with same color PVC tape.
4. Keyboard tray fitted with necessary fittings

(b) Computer Chairs (30)

1. The chair should have 360 degrees revolving facility with PU armrests and Sturdy Nylon chair base.
2. The chairs should be of high quality with wheels and breathable fabric upholstery.

(c) Waiting area furniture

1. Sturdy 3 seater sofas with steel base and metallic seats (20 sets).

| Sample Computer Chair & Table | Sample waiting area sofa |
|--|---|
|  <p>A photograph showing two black office chairs with five casters positioned at a wooden desk. The desk has two computer monitors, a keyboard, and a mouse. The desk is part of a larger wooden workstation structure.</p> |  <p>A photograph of a three-seater waiting area sofa. It has a silver metal frame and three seats with grey mesh backs and seats. The sofa is shown from a side-on perspective.</p> |

5. Specification of CCTV System

- I. **Surveillance Cameras: (Qty 3 indoor and 1 outdoor)**
 - a. HD 2MP Progressive Scan CMOS Sensor
 - b. Day/Night Mode
 - c. Minimum IR distance 20m
 - d. Manual and schedule recording
 - e. Outdoor camera must comply IP66 ratings

- II. **Digital Video Recorder (DVR): (Qty 1)**
 - f. Storage Capacity: 30 days backup with 4 cameras running 24hrs
 - g. Ports: 8

- III. **LCD for Surveillance: (Qty 1)**
 - h. Minimum 21"

6. Specification of Queue Management System

In the Telecenter there can be situations with dense queue volume, in order for the operations to follow a certain pattern and order, new incoming visitors will receive an appropriate ticket for his / her operation from the queue machine and, based on this queue, he / she will be called by the related officer and the operation will be completed. As the calls can be monitored in on the display and the main board, there won't be backlogging in front of the gates or counters. The people who come to the Telecenter will take their sequence ticket from order ticket machine, according to the service they require. The process within

this sequence is carried out by the relevant officer. The call can be watched on the LED counter display.

Following are the requirements for the desired Queue Management System:

(a) Automatic Call Processor

If there is no new customer or a new customer does not take a sequence number, then another customer can come and take a sequence number, the system will remember the operator who will service the call and direct the new number instantly to him. In order to prevent the operators to stop for a period of time without taking action, you can use the automatic call.

(b) Call routing\Pass\Delay process

The operators can direct the numbers which they call to another service desk. The operator can delay the call (in case of missing document, delayed customer, etc.) after a specific number it will call back, in this way the customer will not lose time and will not take a new sequence number.

(c) Determine Working Hours

The system will start the day by cleaning all sequence numbers. All the services have been adjusted according to specific working hours. The customers who want to take a sequence number outside the designed time will be informed that the working hours have ended and a new ticket issuance will be prevented.

(d) LED Display System and Sound System

The token number will be displayed against each counter on an LED display system. There will be a 3 digit size 4.2 LED Counter Display with aluminum casing. A sound system can be used to call the token number.

(e) Ticket Dispenser

A ticket dispenser will be used to dispense tokens to the people according to the service the customer requires. A printed token will be dispensed by the machine to the customer according to the service require. A button will be reserved against each service on the dispenser.

(f) System Capacity

The system should have a minimum capacity to manage five separate services.

7. Specification of Solar Solution for Power Backup

a) Solar Power System:

Supply at site and installation 5kW Solar Power System with a backup time of 6 hours complete with fixing arrangement according to acceptable international standards (IEC1000-3-2(4), VDE or AS/NZS 3000). System must consist of Solar ON-Grid Invertors with energy storage for pure sine-wave compatible to AC mains

voltage, 12V dry batteries and high efficiency mono crystalline /PV Solar Panels. Bidder to provide at least Ten years warranty material and workmanship and 25 year linear power output warranty. Installation shall be complete in all respect.

b) Solar Panels Mono Crystalline

Supply and installation on frame structure, connecting, testing and commissioning of Solar Modules having high efficiency mono-crystalline cells, self-cleaning robust surface, fixing frame up to 5400 Pa load, nut-bolt, cable connectors, light weight outdoor type, power warrantee 25years @80%, assembled as per manufacturer instructions and drawings. Installation must be complete in all respect. System must comply with IEC 61215, IEC 61701, IEC 61730, UL1703, CEC listed and appropriate ISO standards. Junction box of solar panel should be IP65 rated.

c) Pure Sine Wave ON-Grid Single Phase Inverters

Supply, installation and testing of Pure Sine Wave SP Inverters (suitable for 5kW load) compatible to Utility SP voltage 220-240V, Working temperature 0°C - 55°C and full range of battery voltage, comprising AC to DC, DC to AC invertors, battery charger, transfer switch, solar power charger (MPPT) etc complete in all respect, complying to international safety standards including IEC 60529.

d) GEL Batteries

Providing, fixing, installation, testing and commissioning of deep cycle dry batteries (minimum life 5 years) in battery rack of sufficient size. Mutual connection of batteries and then connection to Invertors, complete in all respect and to the entire satisfaction of the Engineer. Batteries must conform to International standards like IEC60896-21/22, IEC 61427.

e) Equipment Grounding

Separate grounding for equipment and structure. Grounding value should be less than one Ohm, Minimum two earth pits.

f) Single Phase Flexible PVC insulated Cable

Supply installation and connections of Single Core cables between various panels/Modules, Modules to Combiner box, Combiner box to Inverter, Inverter to AC Distribution Board, Battery box to Inverter and earthing complete in all respect.

g) Steel Racks for Solar Panels and fixing accessories.

h) Complete system installation including Cables, Solar Structure, Battery rack, nut bolt etc.

- i) USF Service Provider to provide calculations to justify quantities of proposed equipment.
- j) The overall system and solution shall be on-site warranted for an overall period of 5 years. USF Service Provider shall also be responsible for after sales support and provision of required necessary spares for the smooth operations and management of these sites.
- k) Solar solution shall be installed at roof top of each Telecenter.
- l) Power ratings, fabrication details, country of origin, serial number and other key technical parameters shall be permanently and legibly marked on each module.
- m) USF Service Provider must ensure submission of detailed factory inspection tests of all equipment including solar panels, batteries etc. Detailed technical specification sheets of all equipment covering all possible scenarios must be covered in detail and submitted along with the bid.
- n) Bidder shall also arrange detailed engineering drawings including civil works, layouts, as-build drawings etc.

8. Firefighting Equipment

Firefighting equipment comprising of the following items:

- a. 2 Zone Fire Alarm Control panel (One unit)
- b. Conventional Ionization Heat Detector/Smoke detector with base (Four Units)
- c. Alarm Bell 6" diameter (One Unit)
- d. Manual Call Point (One Unit)
- e. Co2 Fire extinguisher - 5kg (Four Units)
- f. Alarm Sounder (One Unit)

9. Fiber Optic System

- a) Terminal Multiplexer (at Telecenter) with minimum capacity of One STM4 for backbone connectivity and one STM1, 40 E1s, 2 FEs and 2 GE interfaces.
- b) Laying of Optic Fiber cable (minimum 8 Fiber- G.652.D or G.655) from nearest Optic Fiber Node to Telecenter.
- c) Fiber Optic system should be compliant to USF Cable Laying and Equipment Specifications provided at Schedule A1 of this BOT Agreement.

10. Maintenance

The USF Service Provider shall be responsible for providing preventive maintenance and trouble-shooting of all Telecenter Equipment mentioned above on need-basis for the term of the BOT Agreement.

SCHEDULE B-2

Building Layout

This schedule provides outlines which should be followed for the construction of Telecenter's Building. The Telecenter's building should be constructed based on the floor plan given in the Annex to the schedule B-2.

- i. Construction of the Telecenter Building will be based on the architectural drawings provided by USFCo (Annex to Schedule B-2)
- ii. Building will be constructed at an approximate covered area of 3300 square feet based on the architectural drawing
- iii. The bidder, while carrying out the said work, shall comply with the provisions of all laws, rules, and bye-laws for the time being enforced , affecting the said works and will give all necessary notices to and obtain the requisite sanctions of the concerned local authorities in respect of the said works and will comply with the building and other regulations of such authorities and will keep the USF Co indemnified against all fines, penalties, and losses incurred by the reasons of the breach of the bidders of any such laws, bye-laws and regulations.
- iv. Telecenters shall be constructed by a construction firm registered with Pakistan Engineering Council in relevant category.



(Fore detail design please refer to TELECENTER BOT Agreement **Schedule B2-Annex (this will be available to the registered bidders)**. Item-wise BOQ (un-priced) has to be provided on format given at Schedule B-5 with the technical proposal.

SCHEDULE B-3

Provisioning of Land by USF

The land for the construction of Telecenter will be provided by USFCo, through a leasing arrangement with NTC

SCHEDULE B-4

Telecenter Operational Guidelines

This schedule provides outlines which should guide the operations of Telecenters.

1) Services to be offered at Telecenters

The following services will be offered at Telecenters

| | |
|------------------|---|
| Broadband Center | There will be two separate computer centers one each for male and female. The male computer center shall have 10 computers while the female center shall have 6 computers. |
| NADRA | NADRA Center will have 4 designated computers. NADRA will have their setup where they will offer the following services; <ul style="list-style-type: none"> • Registration Services (Inclusive of ID Cards, CRC, FRCs • Biometric Verification for Mobile SIM activation • Any other services launched by NADRA for the benefit of general public |

2) Telecenter Operational Hours

The Telecenter will be operational during the following timings

| | |
|-----------------|---|
| Monday-Thursday | 0900-1700 hours 1300-1400 hours lunch break |
| Friday | 0900-1700 hours 1230-1430 hours prayer & Lunch Break |
| Saturday | 0900-1700 hours 1300-1400 hours Lunch Break |

3) Telecenter Staff

Each Telecenter should have the following minimum staff.

- Telecenter Supervisor (1)
- Technicians (1)
- Janitor (1)
- Guard (2)

The cost of the staff provided by NADRA or Service Providers, other than that mentioned above, will be absorbed by the respective organization. **Staff will be hired after the approval from USFCo.** All

USF Service Providers are expected to employ people from local Areas and generate local employment by supporting and engaging local labor and industry.

4) Job Descriptions of the Staff

The Job descriptions of the staff is given below

| | |
|------------------------------------|--|
| Job Title: | Supervisor |
| Status | Full Time |
| Location | Telecenter Site Based |
| Job Summary: | The supervisor will be responsible for efficient and effective operations of the Telecenter. He will organize and monitor the work flow of his staff in such a manner that it augments better operations. |
| Education: | <ul style="list-style-type: none"> • A minimum of 14 years of education from HEC recognized institution is required. • Preference will be given to the people with educational background in Computers\Telecom\IT. |
| Experience: | <ul style="list-style-type: none"> • A minimum of three years of experience is required. • Preference will be given to people who have experience in running self-owned business. • Preference will be given to people who have managerial experience. |
| Functions\Responsibilities: | <ul style="list-style-type: none"> • Promote the use of Telecenter in local community. • Assist the visitors in a helpful and friendly manner. • Effective and efficient operation of Telecenter. • Manage the staff of Telecenter. • Timely reporting to USF. • Maintain a conducive environment in the Telecenter. |

| | |
|---------------------|--|
| Job Title: | Technician |
| Status | Full Time |
| Location | Telecenter Site Based |
| Job Summary: | The Technician will be responsible for efficient and effective operations of IT/Electrical equipment of the Telecenter. He will be responsible for the preventive and basic corrective maintenance of all IT and Electrical Equipment of the Telecenter for that it augments better operations. |
| Education: | <ul style="list-style-type: none"> • Diploma in Electrical/Telecom/Electronics/Networking/IT recognized by the relevant technical education board. • Preference will be given to the people having additional certification in IT/Wired Networking/Wireless Networking/Telecom/Software. |

| | |
|------------------------------------|---|
| Experience: | <ul style="list-style-type: none"> • A minimum of two years of experience is required. • Preference will be given to people who have experience in maintenance of computer centers/IT Labs. |
| Functions\Responsibilities: | <ul style="list-style-type: none"> • Preventive Maintenance of IT/Electrical Equipment. • Basic Corrective Maintenance/Troubleshooting of IT/Networking/Electrical Equipment (Hardware and Software). • Timely reporting of faults/problems which cannot be solved within a given time period to Service provider and USF. • Operating Systems installation and trouble shooting. • Basic Software installation and trouble shooting. • Maintain conducive environment in the Telecenter. • Effective and efficient operation of Telecenter. • Preventive and corrective maintenance of surveillance and firefighting system. |

| | |
|------------------------------------|---|
| Job Title: | Janitor |
| Status | Full Time |
| Location | Telecenter Site Based |
| Job Summary: | The Janitor will be responsible for cleanliness, and any other task assigned by the supervisor. |
| Education: | Education of 8-10 years is desirable |
| Experience: | No experience |
| Functions\Responsibilities: | <ul style="list-style-type: none"> • General cleaning of office premises. • Deliver files\post and extend help to Telecenter staff. • Any other task assigned by supervisor. |

| | |
|---------------------|--|
| Job Title: | Security Guard |
| Status | Full Time |
| Location | Telecenter Site Based |
| Job Summary: | The security guard will be responsible for protecting the property, assets and lives by patrolling the premises. |
| Education: | Education of 8-10 years is desirable |

| | |
|------------------------------------|---|
| Experience: | A minimum of one year of relevant experience is required. |
| Functions\Responsibilities: | <ul style="list-style-type: none"> • Monitor entrance of property. • Guard against theft and maintain security. • Protect property and assets by patrolling the area. • Inspect windows and doors to ensure locks are in place and working. |

5) Obligation of Service Provider

The Service Provider will be bound to provide the following services free of cost;

- Broadband Internet to the Community
- Broadband Internet\Connectivity to NADRA
- Designated office space to NADRA

6) Permission to Launch any other Service

For providing; any service other than the authorized services i.e. given at section 1 of the document; the Service Provider has to seek prior written approval of USFCo.

7) Standard Operating Procedures

Given below are Standard Operating Principals (**SOPs**), which needs to be developed for the operation of Telecenter

| Process | SOP No |
|---|----------------|
| Telecenter General Operation | SOP-001 |
| Opening and Closing a Telecenter | SOP-001-1 |
| Firefighting Equipment management | SOP-001-2 |
| Break Down Reporting | SOP-001-3 |
| Maintenance Requisition | SOP-001-4 |
| General Cleanliness | SOP-001-5 |
| Human Resource Management | SOP-002 |
| Reporting Line & Frequency of Reporting | SOP-002-1 |
| Grievance Management | SOP-002-2 |
| Code of Conduct of Employees | SOP-002-3 |
| Performance Management | SOP-002-4 |
| Facility Management | SOP-003 |
| Operational Expenditure Management | SOP-003-1 |
| Minimum Level of Service | SOP-003-1 |
| Miscellaneous | SOP-004 |
| Theft Reporting | SOP-004-1 |
| Telecenter User Facilitation | SOP-004-2 |
| Dispute Resolution | SOP-004-3 |
| Disciplinary Action | SOP-004-4 |
| Facility Improvement Suggestions | SOP-004-5 |

| | |
|--|-----------|
| Code of Conduct for Users of Telecenters | SOP-004-6 |
| Event Organization (Training) | SOP-004-7 |

| | |
|--|----------------------------------|
| SOP Category | General (001) |
| SOP Name | Opening and Closing a Telecenter |
| SOP No. | SOP-001-1 |
| <p>The prime responsibilities of the supervisor during opening and closing of Telecenter are:</p> <ul style="list-style-type: none"> • Upon Opening at 0845hrs Supervisor will ensure that all facilities are in working order, the Telecenter is clean, and all items in the inventory are in order. • Upon closing at 1730 hrs the Telecenter supervisor will ensure that all rooms are properly locked, Mains are switched off, equipment are properly switched off, inventory count is in order and main door is properly locked. • During lunch and prayer breaks supervisor will ensure that someone from Telecenter staff is present. The Telecenter must not be left unattended at any time. During Friday prayer the Telecenter shall remain closed between 1230 hrs ~ 1430 hrs. | |

| | |
|--|-----------------------------------|
| SOP Category | General (001) |
| SOP Name | Firefighting Equipment management |
| SOP No. | SOP-001-2 |
| <p>It is the prime responsibility of the technician to manage Firefighting Equipment.</p> <ul style="list-style-type: none"> • Ensure that all fire extinguishers and smoke detectors are in working condition at all times. • It is the duty of the technician to check the pressure\weight of the extinguisher on quarterly basis and contact the service provider in case the pressure\weight is lower than what is recommended. • The Expiry date must be clearly mentioned on the fire extinguisher. • Firefighting equipment should be properly tested on first Monday of every month, in case of holiday it will be done on the first working day after holidays. | |

| | |
|---|----------------------|
| SOP Category | General (001) |
| SOP Name | Break Down Reporting |
| SOP No. | SOP-001-3 |
| <p>The Telecenter staff will escalate the break down if any to the Telecenter Supervisor. The Supervisor will contact concerned quarters for rectification.</p> <ul style="list-style-type: none"> • Person responsible should immediately report the Breakdown or malfunction of any equipment\device on the prescribed FORM. • Supervisor is responsible to communicate the malfunction of the equipment within the same working day to the designated officer of the Service Provider. • The designated officer of the Service Provider is responsible to communicate to the concerned authority for fault rectification. | |

| | |
|--------------|-------------------------|
| SOP Category | General (001) |
| SOP Name | Maintenance Requisition |

| | |
|--|-----------|
| SOP No. | SOP-001-4 |
| <ol style="list-style-type: none"> 1. It is the responsibility of the Supervisor to classify each maintenance request into either <u>Critical</u> or <u>Normal</u>. 2. Maintenance requisition should be submitted on the prescribed format. All maintenance requests should be forwarded to the designated officer of the Service Provider and the response time for critical maintenance request is 48 hours, and for normal maintenance request is four working days <u>at the most</u>. | |

| | |
|--|---------------------|
| SOP Category | General (001) |
| SOP Name | General Cleanliness |
| SOP No. | SOP-001-5 |
| <p>Telecenter will be cleaned twice one before opening i.e. 0900 hours and during the lunch breaks. The main responsibility of the maintaining the cleanliness is of office boy/janitor. Supervisor will be responsible for ensuring that Telecenter is clean.</p> | |

| | |
|--|--------------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Reporting and Frequency of Reporting |
| SOP No. | SOP-002-1 |
| <ol style="list-style-type: none"> 1. Supervisor shall report monthly to the designated officer of the Service Provider on the prescribed formats, the report should be in electronic format and should reach the designated officer of the Service Provider on every Monday 0900 hours. 2. The service provider will compile these monthly reports into a quarterly report, which are prepared by each Telecenter Operator, on a quarterly basis to USFCo. Additionally a summary report of the whole Telecenter Lot on the prescribed format (to be developed jointly by USFCo and the Service Provider) will be submitted to USFCo, not later than three weeks after the completion of the quarter. | |

| | |
|--|--------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Grievance Management |
| SOP No. | SOP-002-2 |
| <ol style="list-style-type: none"> 1. A complaint/Suggestion Box will be available at every Telecenter. 2. Grievances against Telecenter's staff, other than supervisor, will be communicated to the supervisor. 3. Grievances against supervisor will be communicated to the Service Provider. 4. The Contact information of the concerned designated officer of the Service Provider will be displayed at all Telecenters for public access. 5. If the grievance remains unresolved then it will be communicated to the USF Project Manager. 6. The matter\issue should be resolved within three working days starting from the date of submission of the complaint. 7. A survey form will be floated and feedback will be sought from users of the Telecenter at the | |

end of every month in all Telecenters and the result of those surveys will be shared with USF Project Manager.

8. Electronic grievance resolution system will be developed which will log all complaints/grievances and track it for status.

| | |
|---|--------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Code of Conduct of Employees |
| SOP No. | SOP-002-3 |
| <p>All employees shall follow the Code of Conduct as mentioned in the Telecenter Manual.</p> <p>Any deviance from the mentioned Code of Conduct should be immediately reported to USF. It is the duty of the supervisor to ensure that all employees follow the Code of Conduct. In case an employee violates code of conduct it will lead to strict disciplinary action.</p> | |

| | |
|--|--------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Performance Management |
| SOP No. | SOP-002-4 |
| <p>There has to a proper performance management for all the employees recruited in Telecenter, in order to manage staff performance.</p> | |

| | |
|--|--------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Disciplinary Action |
| SOP No. | SOP-002-5 |
| <ol style="list-style-type: none"> 1. Disciplinary action will be taken against the employee found involved in fraudulent practices. 2. Decisions regarding disciplinary actions will be taken by a committee comprising of service provider designated representatives. 3. Final Decision of Disciplinary action will be communicated to the USF Project Manager. 4. The employee will have right to appeal against the decision and the final authority rest with the designated representative of the Service Provider. | |

| | |
|--|--------------------------------|
| SOP Category | Human Resource Management(002) |
| SOP Name | Zero tolerance for Corruption |
| SOP No. | SOP-002-4 |
| <p>There will be zero tolerance for corruption, in case an employee is found to be indulged in fraudulent practices it will lead to disciplinary action against the employee</p> | |

| | |
|--------------|--------------------------|
| SOP Category | Facility Management(003) |
|--------------|--------------------------|

| | |
|--|--------------------------|
| SOP Name | Minimum Level of Service |
| SOP No. | SOP-003-2 |
| <p>The minimum level of service is defined as below;</p> <ul style="list-style-type: none"> • Power is available • All computers are in working order • Environment of the Telecenter is conducive and clean. • Working hours should be strictly observed • Cooperative and Friendly attitude of Telecenter employees towards general public. | |

| | |
|---|--------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Theft Reporting |
| SOP No. | SOP-004-1 |
| <ul style="list-style-type: none"> • There should be a proper mechanism for theft reporting in case of theft at Telecenter | |

| | |
|---|------------------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Telecenter User Facilitation |
| SOP No. | SOP-004-2 |
| <ul style="list-style-type: none"> • It is the primary responsibility of the Supervisor to facilitate the users, however all Telecenter employee should show empathy towards the users and should facilitate users. • Special Consideration should be given to disabled people and maximum facilitation should be provided to them. | |

| | |
|--|--------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Dispute Resolution |
| SOP No. | SOP-004-3 |
| <p>A proper mechanism for the resolution of disputes related to Telecenter's operation</p> | |

| | |
|--|---------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Disciplinary Action |
| SOP No. | SOP-004-4 |
| <p>USF holds authority to take disciplinary action against the employees of Telecenter in case of violation of the Code of Conduct, Malpractice or any other wrong doing. However the Service Provider will have a mechanism for disciplinary actions.</p> <p>Disciplinary action may include the following:</p> <ol style="list-style-type: none"> 1. Verbal Warning – After 3 verbal warnings a written warning shall be issued. 2. Written Warning – After 3 written warnings any employee can be terminated. Written warnings can be given without any prior verbal warning. | |

3. Termination – USF has the right to terminate any employee depending on the allegation

| | |
|--|----------------------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Facility Improvement Suggestions |
| SOP No. | SOP-004-5 |
| <ul style="list-style-type: none"> • Every Telecenter will have a suggestion and improvement box placed at a visible place, and all suggestions will be mailed to USF every month. • Contact details of designated officials of the Service Providers and USF should be displayed at a conspicuous place. • In addition to the suggestion box, suggestions can be directly routed to USF through Email, Land Mail, and Fax on the designated addresses. | |

| | |
|---|--|
| SOP Category | Miscellaneous(004) |
| SOP Name | Code of Conduct for Users of Telecenters |
| SOP No. | SOP-004-6 |
| <ol style="list-style-type: none"> 1. User must sign in before using the equipment. 2. If the application user is using has a sound associated with it, turn off the sound or use headphones. 3. Telecenter’s staff reserves the right to ask anyone to leave the Telecenter at any time, for any reason. 4. Users who copy software from any of the computers or who intentionally delete or alter the contents of a computer’s software will not be allowed to use the Telecenter again. 5. Telecenter user should be sensitive at all times to other activities taking place. (S)he should not make noise and should not disturb other Telecenter users. 6. At closing time, Telecenter users should complete what they are doing quickly and leave the premises. 7. Computers can be used only during the hours prescribed. 8. Weapons of any kind are strictly prohibited in the premises of Telecenters. 9. Smoking is strictly prohibited in the premises of the Telecenter. 10. Abstain from viewing vulgar contents and using foul language. 11. Show respect to fellow users <p>Note: This needs to be placed at a prominent place, in the entrance of Telecenter</p> | |

| | |
|---|----------------------------|
| SOP Category | Miscellaneous(004) |
| SOP Name | Event Organizing/ Training |
| SOP No. | SOP-004-7 |
| <p>Telecenter will also be used for conducting ICT trainings for the community.</p> <p>Training plans will be developed by the Service Providers in consultation with USF after seeking the</p> | |

approval to conduct the event.

8) Reporting Requirement

It is mandatory for every Telecenter to maintain a log of all of the following events;

- Number of user accessing internet facilities
- Any issues on daily basis
- Complete details of how that issue is resolved
- Any breakdown
- Any suggestion for improvement

Every Telecenter will file a consolidated report compiled on the basis of statistics collected through daily logs, key issues and how those issues were resolved, and suggestion for improvements. Additionally cumulative monthly break down time of the Internet and equipment will be provided on a standardized format developed jointly by USFCo and the Service Provider.

The service provider will submit these monthly reports, which are prepared by each Telecenter Operator, on a quarterly basis to USFCo. Additionally a summary report of the whole Telecenter Lot on the prescribed format (to be developed jointly by USFCo and the Service Provider) will be submitted to USFCo, not later than three weeks after the completion of the quarter.

Telecenter BOT Agreement Schedule B-5

SUMMARY

| Item No. | Description | Amount (Rs.) |
|-----------------|------------------------------------|---------------------|
| A | Cost of Civil Works | |
| B | Cost of Plumbing Works | |
| C | Cost of Electrical & Miscellaneous | |
| D | Equipments | |
| | Total (A+B+C+D) | |

Note:

Bill of Quantities without price will be submitted with Technical Proposal
Priced BoQs will be submitted as a part of Financial Proposals

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF CIVIL WORKS**

| Sr.No | Description | Unit | Qty | Unit Price | Amount |
|-------|--|------|--------|------------|--------|
| 1 | Excavation In Foundation of building, Bridges and other structures, including dagbelling,dressing,Refilling around structure with excavated earth, watering ramming lead up to one chain (30m) and lift up to 5 ft in hard soil or soft murum. Complete in all respect as per drawings, specifications. | Cft | 2,734 | | |
| 2 | Providing, Filling, Watering and ramming earth under floor complete in all respect as per drawings, specifications. | | | | |
| | i) With surplus earth from foundation etc | Cft | 1,040 | | |
| | ii) With New earth excavated from out side | Cft | 33,879 | | |
| 3 | Providing and spraying anti-termite liquid mixed with water in the ratio of 1:40 complete in all respect as per specifications. | Sft | 21,833 | | |
| 4 | Providing and laying Cement concrete brick ballast 1-1/2" to 2" gauge, in foundation and plinth complete in all respect as per drawings,specifactions. | | | | |
| | b) Ratio 1:4:8 | Cft | 1,808 | | |
| 5 | Providing and laying Cement concrete plain including placing compacting, finishing and curing complete (including screening and washing of stone aggregate under floor) complete in all respect as per drawings, specificatons . | | | | |
| | Ratio 1:2:4 (under Floor) | Cft | 1,386 | | |
| 6 | Ratio 1:4:8 (under foundation) | Cft | 645 | | |
| 7 | Providing and laying reinforced cement concrete (including Prestressed cement) using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.) complete in all respect as per drawing, specification, (a) (i) Reinforced cement concrete in roof slab, beams, lintels, girders and other structural members laid in site or precast in position, or prestressed members cost in site complete in all respect. (2) Type B nominal mix 1:1-1/2:3 (columns) | Cft | 903 | | |
| 8 | (3) (c)Type C (nominal mix 1:2:4) Roof Slab shade beam and lintels | Cft | 1,757 | | |
| 9 | (3) (ii) Reinforced cement concrete in slab of rafts / strips foundation, base slab of column and retaining walls, etc and other structural members other than the mentioned in 5 (a) (i) above not required from work (i.e. horizontal shuttering complete in all respect as per drawing, specifications. (3) Type C (nominal mix 1:2:4) | Cft | 1,346 | | |
| 10 | Providing and fabricating of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings including cost of binding wire and labour chargers for binding of steel reinforcement (also includes removal of rust from bars) complete in all respect as per drawing, specifications C) deformed bars | Kg | 20,160 | | |
| 11 | Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating complete in all respect as per drawings, specifications . a. With one coat bitumen and one coat polythene sheet 500 gauge ii) 2" thick (50mm) | Sft | 541 | | |
| 12 | Providing and laying vertical damp proof course with cement, sand plaster and bitumen coating complete in all respect as per drawings, specifications . b) with 2 coats of bitumen:- i) Ratio 1:4 b). 3/4" thick (20 mm) | Sft | 242 | | |
| 13 | Providing and laying Pacca Brick work in foundation and plinth with Cement sand mortar ratio 1:4 complete in all respect as per drawings, specifications . | Cft | 2,134 | | |
| 14 | Providing and laying Pacca Brick work in super structure with Cement sand mortar ratio 1:4 complete in all respect as per drawings, specifications . Ground floor | Cft | 3,378 | | |

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF CIVIL WORKS**

| Sr.No | Description | Unit | Qty | Unit Price | Amount |
|-------|---|------|--------|------------|--------|
| 15 | Providing and laying khuras on roof 2'x2'x6" complete in all respect as per drawings, specification . | Each | 4 | | |
| 16 | Providing and applying cement plaster 1/2" thick under soffit of R.C.C roof slabs only upto 20' height complete in all respect as per drawings, specification . | Sft | 3,896 | | |
| 17 | Providing and applying cement plaster 1:4 upto 20' height complete in all respect as per drawings, specification . | Sft | 12,368 | | |
| 18 | Preparing surface and painting with emulsion paint complete in all respect as per drawings, specification . | Sft | 16,264 | | |
| | i) 1st coat | Sft | 16,264 | | |
| | ii) 2nd coat | Sft | 16,264 | | |
| 19 | Providing and laying first Class Deodar wood wrought joinery in doors. Panelled, or paneled glazed, or fully glazed, fix in position including chowket holdfast, hinges, tower bolts, chocks, ruber stop, cleats/G.I clamps, handles and chord with hooks, etc complete in all respect as per drawings, specifications . | Sft | 463 | | |
| | c) 1-1/2" thick (40mm) | Sft | 463 | | |
| 20 | Extra for providing and fixing approved quality rim lock adjustable over the style surface | Each | 18 | | |
| 21 | Providing and Fitting all types of glazed aluminum windows of anodized bronze colour partly fixed and partly sliding using delus section of Pakistan cables or equivalent having frame size of 100x20mm and leaf frame section 50x20mm all of 1.6mm thickness including 5mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc, complete in all respect as per drawings, specifications . | Sft | 1,055 | | |
| 22 | Providing and fixing 2x2 ft marble chips cement flooring, with 1/2" marble strips including filling curing polish etc complete in all respect as per drawings, specifications . | Sft | 3,546 | | |
| 23 | Providing and fixing 1/2" thick marble chips skirting 5" high, including filling curing polish etc complete in all respect as per drawings, specifications . | Sft | 790 | | |
| 24 | Marble Slabs: Providing and fixing of 2' wide best quality 1" thick pre-polished Boticena Marble Slabs on vanity counter, as shown on the drawings laid with neat white cement over 3/4" thick cement sand plaster (1:3), including cost of making bull nose on edge, cutting vanities, joint filling with white cement mixed with matching colour pigment, rubbing, finishing, grinding, chemical polishing, including cost of 1/2" thick marble on dropped edge, etc, Complete in all respects as shown on the drawings.(Excluding cost of 3" thick RCC slab). | Sft | 97 | | |
| 25 | Providing and fixing 1 thick round edge badal marble on stair step laid over 1/2" thick cement sand mortar including filling curing polish etc complete in all respect as per drawings, specifications . | Sft | 148 | | |
| 26 | Providing and fixing 1/2" thick badal marble on stair riser laid over 1/2" thick cement sand mortar including filling curing polish etc complete in all respect as per drawings, specifications . | Sft | 75 | | |
| 27 | Providing and fixing Cement concrete face tiles on external walls fixing with 1-1/4" thick cement sand mortar including filling curing etc complete in all respect as per drawings, specifications . | Sft | 4,817 | | |
| 28 | Providing and fixing ceramic tile 12"x12" floor laid over 1/2" thick cement sand mortar including filling curing, etc complete in all respect as per drawings, specifications . | Sft | 135 | | |
| 29 | Providing and fixing ceramic tile 18"x12" floor laid over 1/2" thick cement sand mortar including filling curing, etc complete in all respect as per drawings, specifications . | Sft | 490 | | |
| 30 | Providing and fixing M.S gate for Entrance including cost of wicket gate, cost of 6" x 6" M.S sheet (SWG-18) column between main and wicket gate, RCC 1:2:4 painting. all fixing accessories, Sliding Bolts cost of all material and labour etc. complete in all respects according to drawing and as per approval of the Engineer Incharge. | Sft | 108 | | |

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF CIVIL WORKS**

| Sr.No | Description | Unit | Qty | Unit Price | Amount |
|-----------------------------|---|------|-------|------------|--------|
| 31 | PAVED PATHS Providing and laying PCC pavers, tuff tiles 2-1/2" thick having 7,000 Psi cylindrical crushing strength / or approved equivalent of approved design and colour placed in specific pattern laid / set over and including 3" thick sand to make proper level, slope and including 4" thick compacted crushed stone ballast filled the voids with sand including 1:2:4 concrete edging over well compacted earth and sand grouting of entire top surface complete in all respect as per drawings & Technical Specification or as directed by the Engineer. | Sft | 4,281 | | |
| 32 | Roof Water Proofing: Providing and laying water proofing on roof slabs at any height/floor consisting of:- Cleaning of surface Primer coat of bitumen 80/100 @ 5 Lbs/100 Sft. One coat of hot bitumen 10/20 @ 15 Lbs/100 Sft. Single layer of polythene sheet 100 grams/m2 with ends overlapped 6". 2" thick Jumbolon Board or approved equivalent Single layer of polythene sheet 100 grams/m2 with ends overlapped 6". Providing and laying first class burnt clay tiles size (9"x4½"x 1½") over 4" Mud, providing minimum ¼" gap between tiles for grouting including cost of grouting with C:S mortar 1:2, cost of making cant strip gola size 4"x4")with PCC 1:2:4 using ¼" and down stone crush. | Sft | 3,890 | | |
| 33 | Railing: Providing, cutting, fabricating and fixing in position S.S(304) pipe handrail 36" high (above floor) at any height/floor consisting of 2" dia SS304 pipe handrail with 16 gauge SS304 pipes of 2" dia vertical posts (balusters). Vertical baluster to be welded with sleeve set in stair step concrete. Item includes wastage, welding, grinding, cleaning, etc. complete in all respects as per drawings, specifications and all to approval of the Engineer Incharge | Rft. | 50 | | |
| Mechanical Structure | | | | | |
| 34 | Pergola: Providing, cutting, fabricating and fixing in position S.S(304) pipe 1-1/2" at any height, Item includes wastage, welding, grinding, cleaning, etc. complete in all respects as per drawings, specifications and all to approval of the Engineer Incharge | Rft. | 850 | | |
| 35 | Transportation: transportation of fabricated pipe structure at site | Job | 1 | | |
| 36 | Erection: erection of pipe structure at position, Complete in all respect as per drawing, specification and all to approval of Engineer Incharge . | Job | 1 | | |
| Grand Total of Civil | | | | | |

Note:

Bill of Quantities without price will be submitted with Technical Proposal

Priced BoQs will be submitted as a part of Financial Proposals

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF PLUMBING WORKS**

| Sr. No | DESCRIPTION | UNIT | QTY | UNIT PRICE | Amount |
|--------|---|------|-----|------------|--------|
| | SANITARY FIXTURES AND FITTINGS | | | | |
| 1 | Providing and fitting glazed earthen ware water closet, European type excluding seat and cover White i) | Each | 2 | | |
| 2 | Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc. i) white with Pedestal | Each | 2 | | |
| 3 | Providing and fixing stainless steel sink with drain board, size 120x60cm including brisket waste pipe and waste coupling complete in all respect | Each | 1 | | |
| 4 | Providing and fixing, chromium plated towel rail:- i) 60 cm (24") long, and 2 cm (¾") dia. | Each | 2 | | |
| 5 | Providing and fitting:- i) plastic soap dish | Each | 2 | | |
| | ii) chromium plated toilet paper holder | Each | 2 | | |
| | iii) chromium plated towel rail | Each | 2 | | |
| | iv) plastic shelf 60x13 cm (24"x5") with bracket and railing. | Each | 2 | | |
| 6 | Providing and fixing chromium plated bib cock:- i) 2 cm (¾") | Each | 2 | | |
| | ii) 1.5 cm (½") | Each | 2 | | |
| 7 | Providing and fixing, floor trap of cast iron, including concrete chamber all round, and C.I. grating:- i) 10x5 cm (4"x2") | Each | 5 | | |
| | ii) 10x7.5 cm (4"x3") | Each | | | |
| 8 | Providing and fitting "P" trap:- ii) 10 cm (4") glazed. | Each | 2 | | |
| 9 | Supply and fitting of cast iron manhole cover with frame, etc. complete. iii) 60 cm (24") dia | Each | 4 | | |
| 10 | Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, with socket joints, using G.I pipes of B.S.S. 1387-1967 complete in all respects, with specials and valves. ii) Medium Quality a) ½" i/d (15 mm) 2.65mm thick | | | | |
| | b) ¾" i/d (20 mm) 2.65mm thick | Rft | 45 | | |
| | | | | | |
| 11 | Providing and fitting plastic made low down flushing cistern 1363 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete. i) white | Each | 2 | | |
| 12 | Providing and fitting, chromium plated or brass oxidised, swan neck cock 15 mm (½") dia. i) single way | Each | 3 | | |
| 13 | Providing and fixing chromium plated stop cock, heavy:- ii) 1.5 cm (½") | Each | 5 | | |
| 14 | Providing laying cutting jointing testing, disinfecting UPVC pipe of B.S.S with "B" class working pressure in trenches complete in all respect. | | | | |
| | b) 3" i/d (75mm) | Rft | 90 | | |
| | c) 4" i/d (100mm) | Rft | 207 | | |

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF PLUMBING WORKS**

| Sr. No | DESCRIPTION | UNIT | QTY | UNIT PRICE | Amount |
|-----------|---|-------------|-----|------------|--------|
| | SANITARY FIXTURES AND FITTINGS | | | | |
| | e) 6" i/d (150mm) | Rft | 181 | | |
| 15 | Providing, laying, fixing, testing and disinfecting, polypropylene pipelines for cold and hot water supply as per DIN 8077/8078 PN-20 for pipe and DIN 16962 PN-25 for fittings or equivalent BS specification Dadex (polydex) make or as approved by the Engineer Incharge complete in all respects to their entire satisfaction, including specials such as tee, cross, reducer, bend, union, elbow, plug, socket etc., supported on walls or suspended from slab or run in chases (chased in walls shall be made by using electric cutter) including supports, cutting and making good the same as necessary to the structure complete in all respects. | | | | |
| | a) 25 mm dia | Rft | 90 | | |
| | b) 32 mm dia | Rft | 30 | | |
| | c) 40 mm dia | Rft | 150 | | |
| 16 | POLY ETHELENE OVER HEAD WATER TANK Providing and fixing Poly Ethylene (Special Food Grade Polymer) (Dura or Super Tuff) Over Head Water Tank (500 Gallons capacity) as per height, complete in all respect as per drawings, technical provisions and or as directed by the Engineer. | Job | 1 | | |
| 17 | SEPTIC TANK Making and construction of RCC septic tank of specified size in cement concrete Class-C having 3,000 Psi cylinder strength using including excavation, cost of G-60 steel reinforcement, backfilling dewatering (1:4:8) in foundation, RCC baffle walls, Feb or equivalent water proof coating to all inside surfaces of septic tank, 2 no. 24" dia C1 manhole covers, M.I. bar steps @12" c/c and form work etc. complete in all respects, at any site, situation and any kind of soil complete in all respect as per drawings, technical provisions and or as directed by the Engineer. (Cost of all above items are included). a) 12'x4'x4.5' deep (inner size) | Job | 1 | | |
| 18 | Providing and constructing brick masonry manhole including excavation, backfilling, M.I. bar steps, CI heavy duty manhole cover and slab, benching, plastering, pointing, PCC 1:4:8 bedding, PCC 1:2:4 topping, bitumen coating etc., including cost of steel reinforcement complete in all respects. | Each | 7 | | |

**Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF PLUMBING WORKS**

| Sr. No | DESCRIPTION | UNIT | QTY | UNIT PRICE | Amount |
|-----------------------------|---|------------|-----|------------|--------|
| | SANITARY FIXTURES AND FITTINGS | | | | |
| 19 | <p>SOAKAGE PIT</p> <p>Providing and construction of 3 meter i/d soakage pit to the depth upto 3.0 meter below the sub soil water table consisting of brick masonry staining wall as shown in the drawing with perforation side wall below the spring level with R.C.C curb, digging and sinking the soakage pit as required according to site conditions.</p> <p>The staining wall shall be constructed in 1:4 cement sand masonry through out with mild steel horizontal rings and vertical bars as shown.</p> <p>Providing R.C.C. projected cornice to resist the perforated slab, to be built in two or three pieces with 1" to 1" 1/4" holes 6" apart.</p> <p>Providing and filling brick bots, ballast over the perforated slob and providing and fixing 9" i/d loose joint perforated pipes upto the centre of the soakage pit as shown and covered with the loose brick ballast at least 300mm above the pipes.</p> | | | | |
| | <p>The C.I. vent pipe for the air inlet shall also be provided with necessary masonry base and connection to soakage pit. The height of vent is about 15'-18' above the top of the soakage pit.</p> <p>Rob also includes the cost of dewatering and its disposal as required by owner and renewal of all debris and unwanted soil from site.</p> <p>The work shall be complete as per drawing specification and all approved to the Engineer including the cost of earth work and refilling etc. dewatering including all type of material & labour etc., complete in all respect as per drawings, specification and all to the approval of the Engineer. (The rate also includes the cost of excavation & backfilling etc.)</p> | Job | 1 | | |
| Grand Total Plumbing | | | | | |

Note:

Bill of Quantities without price will be submitted with Technical Proposal

Priced BoQs will be submitted as a part of Financial Proposals

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|---------------|---|------|------|------------|--------|
| Part-1 | MAIN L.T.PANEL AND DISTRIBUTION BOARDS | | | | |
| 1.1 | <p>Main L.T. Panel Fabrication, supply to site , installation, testing and commissioning of Main L.T. Panel to be installed as shown on drawings , sheet metal clad 2.0 mm thick (not less than 14SWG) totally enclosed indoor, free standing floor mounting cubicle type with front access, including all accessories, internal wiring, designation labels on MCCBs , earthing bar suitable for system voltage 415 Volt, 50 Hz, three phase, four wire and neutral bars of same capacity of hard drawn bare copper conductor of 99.7 % electrolytic value, main LT Panel duly painted with antirust paint and further two coats of enamel paint of approved color</p> <p>(preference powder coating), including cost of wiring in cable ducts from MCCBs to cable terminal blocks to be installed at the top of LT Panel, all necessary materials complete in all respect. depth of Main LT Panel not to exceed by 18". Shop drawing shall be submitted by the contractor for approval before the manufacture of Main LT Panel. Equipment specified shall be as per Single Line Diagram. Main LT Panel shall be equipped as under;</p> <p>Incoming TP&N adjustable MCCB, fitted with free handle operation , ON -OFF indicator, current rating and minimum short circuit breaking capacity as per single line diagram attached. 3-Copper Bus Bars (minimum size as per single line diagram) 1-Ammeter with selector switch 3-Voltmeters with selector switch 3-Phase indicator lamps 1-Terminal block of suitable current rating for incoming 4-C cable Terminal blocks for outgoing 4-C cables (Quantity as per single line diagram) 1-Earthing bar with holes, nuts, washers etc. 1-Neutral bar with holes, nuts, washers etc. Same size as phase bars</p> | | | | |
| | <p>Outgoing a. Adjustable trip setting, TP MCCBs of current rating and minimum breaking capacity as shown on single line diagram.</p> | Each | 1 | | |
| 1.3 | <p>Distribution Boards Fabrication, supply to site, installation, testing and commissioning of distribution boards on surface/ concealed type to be installed as and where shown on drawings, made of M.S. sheet 14 SWG with hinged door ,handle catcher , earthing bar neutral strip, internal wiring from MCBs, one coat of anti-rust paint with further two coats of enameled paint of approved color, all necessary materials, complete in all respects, conforming to single line diagram. Equipment specified shall be as per Single Line Diagram. All distribution boards shall have phase indication lamps, one voltmeter with selector switch, one ammeter with selector switch.</p> | | | | |
| b. | 9-way TPN&E Distribution Board (for WAPDA Power Distribution) as shown on Drawing | Each | 1 | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|--------------|---|-------------|-------------|-------------------|---------------|
| c. | 7-Pole SPN&E Distribution Board (for Solar Power Distribution) as shown on Drawing | Each | 4 | | |
| 1.4 | Supply and installation of Rod Type Earthing Point as per specifications and tender drawings, including civil works etc. (Grounding Value less than one Ohm) | | | | |
| 1.5 | Supply and burial of stranded bare copper conductor 2 x 70 mm ² size as ECC, buried 1000 mm deep and 1500 mm away from the substation panels including bonding between earth electrodes and Main LT panel, all complete as per specifications and tender drawings. | | | | |
| 1.6 | Total | | | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|---------------|--|-------------|-------------|-------------------|---------------|
| Part-2 | Wiring Description | | | | |
| 2.0 | Supply, Installation, testing and commissioning of internal wiring with 600/1000 V grade, single core, PVC insulated wires of Copper Conductor in heavy duty PVC conduit recessed in walls, columns, floors, slabs or as required at site. Phase wires of RED color Neutral wires of BLACK color and Earth Continuity Conductor (ECC) of green or green with yellow stripes shall be used. | | | | |
| 2.1 | Circuit Wiring Circuit wiring shall be from circuit breaker of nearest Distribution Board to switch board. Circuit wiring to be wired with 3 x 2.5mm ² size wires. Each circuit shall have independent 25 mm DIA PVC conduit, ECC of 2.5 mm ² size green wire along with one RED colored phase wire and one BLACK colored neutral wire. | Each | 23 | | |
| 2.2 | Light or Fan Point Wiring One light/fan point controlled by one switch/fan regulator and wired with 2 x 1.5 mm ² PVC insulated wires, 3'' high PVC Junction Boxes, Pull Boxes, Steel pull wires, 2.5 mm ² . PVC insulated wire of color green, heavy duty plastic box or M. S. Sheet steel switch box of 16 SWG with earth terminal and 2 Coats of enameled paint, M. S. Box shall be of the suitable size to accommodate required number of flush type plate switches including cost of light switches of minimum 10 A rating and speed regulators for fans, complete in all respects | Each | 13 | | |
| 2.3 | Point to Point wiring Same as per item No. 2.2 but 2 light points controlled by one 10A ON/OFF Switch, complete in all respects. | Each | 66 | | |
| 2.4 | Outdoor Point Wiring Outdoor wiring shall be same as item no.2.1 above from circuit breaker of nearest Distribution Board to switch board including civil work. Each wiring circuit shall have independent 25 mm Ø PVC conduit. | | | | |
| 2.5 | 1 x 2 Pin 16 AMPS Socket (SHUKO) Wiring as per item No. 2.1 mentioned above but away from distribution board and wired with 2 x 2.5 mm ² +1.5 mm ² PVC insulated green wire as ECC including cost of 16 Amps 2 pin Shuko Socket, junction box etc. complete in all respects. Wiring shall be done either directly from MCB in DB or from nearest Shuko socket available. | Each | 9 | | |
| 2.6 | 1x2 Pin 16 AMP Shuko socket to Shuko socket Wiring as per item No. 2.6 complete in all respects. | Each | 38 | | |
| 2.7 | 1 x 2 Pin 5 AMPS Switch Socket Wiring for 1x 2 pin 5 amps switch socket adjacent to switch board shall be with 2 x 1.5 mm ² PVC insulated wires including cost of 5 Amps 2 pin Switch Socket etc. complete in all respects. Wiring shall be done directly from nearest circuit available in switchboard. | Each | 19 | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|--------------|--|-------------|-------------|-------------------|---------------|
| 2.8 | 1 x 3 Pin 10 AMPS Switch Socket Same as per item No. 2.1 mentioned above but wiring for 1x 3 pin 10 amps switch socket away from distribution board and wired with 2 x 2.5 mm ² +2.5 mm ² PVC insulated green wire as ECC including cost of 10 Amps 3 pin combined Switch Socket, junction box etc. complete in all respects. Wiring shall be done either directly from MCB in DB or from circuit available for 15Amp switch socket unit. | Each | 18 | | |
| 2.90 | One-3 Round Pin 15 AMPS, 250V Socket with 1-gang Switch and neon sign Supply, fixing and wiring of one 15 Amps switch socket unit with Neon light away from distribution board and wired with 2x1-Core 6 mm ² PVC insulated (Red Phase & black neutral) wires including cost of all PVC conduits & accessories, PVC junction boxes, pull boxes, cost of switch socket of approved make (Clipsal, Legrand or Orange), steel pull wires of 2.5 mm ² size. including green PVC insulated wire of 2.5 mm ² size as ECC, M.S. Sheet steel box 16 SWG with earth terminal having 2 coats of enameled paint, M. S. Box shall be of proper size to suite 3 Pin switch socket plate, complete in all respects. Wiring shall be done directly from the MCB installed in the nearest DB. | Each | 7 | | |
| 2.10 | Additional one-3 Round Pin 15 AMPS, 250V Socket with 1-gang Switch and neon sign Same as above but wired from nearest 1-3 Pin 15 AMPS Switch Socket (same as Item 2.9 above) | Each | 7 | | |
| | Twin -3 Flat Pin 13 AMPS, 250V Socket with 1-gang Switch and neon sign Supply, fixing and wiring of one 13 Amps twin switch socket unit with Neon light away from distribution board and wired with 2x1-C 6 mm ² PVC insulated (Red Phase & black neutral) wires including cost of all PVC conduits & accessories, PVC junction boxes, pull boxes, cost of switch socket of approved make, steel pull wires of 2.5 mm ² size. including green PVC insulated wire of 2.5 mm ² size as ECC, M.S. Sheet steel box 16 SWG with earth terminal having 2 coats of enameled paint, M. S. Box shall be of proper size to suite 3 Pin twin switch socket plate, complete in all respects. Wiring shall be done directly from the MCB installed in the nearest DB. | | | | |
| 2.11 | Total | | | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|---------------|--|------|------|------------|--------|
| Part-3 | LIGHTING FIXTURES AND FANS | | | | |
| 3.0 | Supply, installation, testing and commissioning of following light fixtures and fans complete in all respect including but not limited to lamp, lamp holder, capacitor, chokes, starter, internal wiring, earthing terminals and all fixing accessories. All light fixtures and fans shall be duly approved by Engineer / Architect before its purchase or installation. | | | | |
| 3.1 | Fluorescent Fitting Fluorescent light fittings ceiling or wall mounted or recessed in false ceiling, made of M.S. body 22 SWG degreased and derusted with white enameled non yellowing paint complete with fluorescent lamps of color 84, Capacitor of the following types. | | | | |
| a. | Fluorescent Light Fitting complete with 4-feet retrofit 1X28 watts energy efficient Lamps or approved equivalent. | Each | 2 | | |
| b. | Fluorescent Light Fitting complete with 4-feet retrofit 2X28 watts energy efficient Lamps or approved equivalent. | Each | 3 | | |
| c. | Fluorescent Light Fitting (Bathroom Mirror Light) complete with 1X14 watts 2-feet retrofit 1X14 watts energy efficient Lamp or approved equivalent | Each | 2 | | |
| d. | Surface mounted Ceiling Fluorescent Light Fitting with High Quality Symmetrical Mirror Reflector 0.4 mm high-purity Aluminium with Fixture. with 2X28W Lamps and electronic ballast or approved equivalent, complete with fixing accessories Etc. | Each | 10 | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|---------------|---|------|------|------------|--------|
| 3.2 | Lighting Fixtures with Energy Saver Lamps | | | | |
| a. | Surface Mounted Down Light, heavy duty Lamp Holder screw type (E27) 10A 250V with 26W energy saver lamp (CFL) complete in all respect | Each | 10 | | |
| b. | Outdoor type weather proof wall bracket (single arm) light fixture complete with 1X26 watt Energy saver lamp. | Each | 17 | | |
| c. | Indoor ceiling light fixture complete with 2X18 watt Energy saver lamp , lamp holder | Each | 18 | | |
| d. | Ceiling Mounted Down Lighter 145mm low height recessed downlight complete in all respect Downlight with 1X32W energy saver lamp. | Each | 3 | | |
| 3.3 | Supply, installation, testing and commissioning of following types of fans complete in all respect including fixing accessories As per ENERCON standards. | | | | |
| a. | Ceiling Fan 1420 mm sweep (56" size) complete with down rod and fixing accessories. As per ENERCON standards. | Each | 20 | | |
| b. | Exhaust Fan 10" dia with plastic frame complete with shutter etc. | Each | 3 | | |
| c. | Exhaust Fan 16" dia with metallic frame complete with shutter etc. | Each | 6 | | |
| 3.4 | Total | | | | |
| Part-4 | L.T CABLES AND ECC | | | | |
| 4.1 | Supply, installation, connections at both ends and commissioning of PVC insulated PVC sheathed non armored Aluminium conductor cable 600/1000 Volt grade in pre-laid PVC conduits to be installed as per details shown for various DBs, including cost of all necessary materials, conforming to general specification. Actual length of cables shall be measured at site by the contractor before placing the order with the manufacturer. No compensation for underpurchased or overpurchased cables will be accepted. However, approximate lengths of cables are shown for bidding purposes. PVC/PVC Al conductor cables of following sizes are required; | | | | |
| a. | 4-core 19/0.083 (70 mm ²) Al. Cable | RM | 115 | | |
| b. | 4-core 19/0.072 (50 mm ²) Al Cable | RM | 125 | | |
| 4.2 | Supply, installation, connections at both ends and commissioning of PVC insulated PVC sheathed non armored copper conductor cable 600/1000 Volt grade in pre-laid PVC conduits to be installed as per details shown for various DBs, including cost of all necessary materials, conforming to general specification. Actual length of cables shall be measured at site by the contractor before placing the order with the manufacturer. No compensation for underpurchased or overpurchased cables will be accepted. However tentative quantities have been given for bidding purposes only. PVC/PVC copper conductor cables of following sizes are required; | | | | |
| c. | 4-core 7/0.052 (10 mm ²) Cu. Cable | RM | 90 | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|---------------|--|------|------|------------|--------|
| 4.3 | Earth Continuity Conductor (ECC) Supply, installation and connection of PVC insulated copper conductor single core wire of color green/ yellow to be used as ECC between L.T.switch board to all DBs as shown including cost of brass, nuts, bolts, washer, lugs, thimbles complete in all respects for the following sizes. Actual length shall be measured at site and paid accordingly. | | | | |
| a. | One-core 16 mm ² | RM | 115 | | |
| b. | One-core 10 mm ² | RM | 215 | | |
| 4.4 | Supply, installation of following PVC conduit heavy duty, to be recessed in walls, floors, to pull electric cable from Main L.T. Panel to various DBs or from Energy Meter to distribution board as shown on drawing, PVC conduit accessories, steel pull wires, complete in all respects | | | | |
| a. | PVC conduit 2" dia | RM | 330 | | |
| 4.5 | Total | | | | |
| PART-5 | SOLAR POWER SYSTEM (5kW) | | | | |
| 5.0 | Solar Power System Supply at site and installation 5kW Solar Power System with a backup time of 6 hours complete with fixing arrangement according to acceptable international standards (IEC1000-3-2(4), VDE or AS/NZS 3000). System must consist of Solar ON-Grid Invertors with energy storage for pure sine-wave compatible to AC mains voltage, 12V dry batteries and high efficiency mono crystalline /PV Solar Panels. Bidder to provide at least Ten years warranty material and workmanship and 25 year linear power output warranty. Installation shall be complete in all respect. | Job | 1 | | |
| 5.1 | Solar Panels Mono Crystalline Supply and installation on frame structure, connecting, testing and commissioning of Solar Modules having high efficiency monocrystalline cells, self cleaning robust surface, fixing frame up to 5400 Pa load, nut-bolt, cable connectors, light weight outdoor type, power warrantee 25years @80%, assembled as per manufacturer instructions and drawings. Installation must be complete in all respect. System must comply with IEC 61215, IEC 61701, IEC 61730, UL1703, CEC listed and appropriate ISO standards. Junction box of solar panel should be IP65, IP66 or IP67 rated. | Each | | | |
| 5.2 | Pure Sine Wave ON-Grid Single Phase Inverters Supply, installation and testing of Pure Sine Wave SP Inverters (suitable for 5kW load) compatible to Utility SP voltage 220-240V, Working temperature 0°C - 55°C and full range of battery voltage, comprising AC to DC, DC to AC invertors, battery charger, transfer switch, solar power charger (MPPT) etc complete in all respect, complying to international safety standards including IEC 60529 | Each | | | |
| 5.3 | GEL Batteries Providing, fixing, installation, testing and commissioning of deep cycle dry batteries (minimum life 5 years) in battery rack of sufficient size. Mutual connection of batteries and then connection to Invertors, complete in all respect and to the entire satisfaction of the Engineer. Batteries must conform to International standards like IEC60896-21/22, IEC 61427 | Each | | | |

Telecenter BOT Agreement Schedule B-5 SAMPLE BOQ
BILL OF QUANTITIES / COST ESTIMATE OF ELECTRICAL AND MISCELLANEOUS WORKS

| S.No. | Description | Unit | Qty. | Unit Price | Amount |
|--|---|------|------|------------|--------|
| 5.4 | Single Phase Flexible PVC insulated Cable Supply installation and connections of Single Core cables between various panels/Modules, Modules to Combiner box, Combiner box to Inverter, Inverter to AC Distribution Board, Battery box to Inverter and earthing complete in all respect. | | | | |
| 5.6 | Equipment Grounding Separate grounding for equipment and structure. Grounding value should be less than one Ohm, Minimum two earth pits | Job | 1 | | |
| 5.7 | Steel Racks for Solar Panels and fixing accessories | Job | 1 | | |
| 5.8 | Installation charges (Cables, Battery rack, nut bolt etc. | Job | 1 | | |
| 5.9 | TOTAL | | | | |
| PART-6 | LOCAL AREA NETWORKING | | | | |
| 6.1 | Supply and installation of wall mounted cabinet 9U | Each | 1 | | |
| 6.2 | Category 6 24-port shuttered Patch Panel | Each | 1 | | |
| 6.3 | Supply and install Category 6 UTP PVC Patch Cords suitable for copper and Fiber application. Patch Cords must be constructed of high grade cable and quality RJ45 plugs available in different colors to help in identification in following lengths | | | | |
| a. | Cat 6, 4-Pair UTP Patch Cord 1m long | Each | 27 | | |
| b. | Cat 6, 4-Pair UTP Patch Cord 3m long | Each | 27 | | |
| 6.4 | Supply, connection and fixing of Single Gang RJ45 Grid Plates with Channel Circuit ID Slot (suitable to Keystone I/Os) at positions as shown on drawing. | Each | 27 | | |
| 6.5 | Supply, connection and fixing of Category 6+ Keystone Shuttered Modular Jack | Each | 27 | | |
| 6.6 | Supply and installation of Cat 6, 4-Pair Copper Cable suitable for DATA transmission | RM | 300 | | |
| 6.7 | Testing & commissioning of the above system | Job | 1 | | |
| 6.8 | TOTAL | | | | |
| PART-7 | FIREFIGHTING EQUIPMENT | | | | |
| 7.1 | 2 Zone Fire Alarm Control panel | Each | 1 | | |
| 7.2 | Conventional Ionization Heat Detector/Smoke detector with base | Each | 4 | | |
| 7.3 | Alarm Bell 6" dia | Each | 1 | | |
| 7.4 | Manual Call Point | Each | 1 | | |
| 7.5 | Co2 Fire extinguisher - 5kg | Each | 4 | | |
| 7.6 | Alarm Sounder | Each | 1 | | |
| 7.6 | TOTAL | | | | |
| GRAND TOTAL OF ELECTRICAL AND MISCELLANEOUS WORKS | | | | | |

Note:

Bill of Quantities without price will be submitted with Technical Proposal
Priced BoQs will be submitted as a part of Financial Proposals

| Telecenter BOT Agreement Schedule B-5 BOQ | | | | | |
|---|--|------|------|------------|--------|
| BILL OF QUANTITIES / COST ESTIMATE OF TELECENTER EQUIPMENTS | | | | | |
| S.No. | Description | Unit | Qty. | Unit Price | Amount |
| Part-1 | Specification of Computers, Printers, Wireless Router, Network Switch and Multimedia Projector | | | | |
| 1.1 | <p>All-in-One Computers</p> <p>All computers for Telecenter shall be branded All-in-One with the following minimum specifications:</p> <ul style="list-style-type: none"> • Computer Type: All-in-One • Processor: 4th Generation Intel® Core™ i5 or above. • Cache Memory: minimum 3M Cache • RAM: minimum 4GB • Internal Storage: 1TB • Optical Drive: DVD +RW • Display: minimum 19" • Video Card: HD Graphics • Wireless: IEEE 802.11 b/g/n standards • Ethernet: RJ-45 (10/100/1000 Ethernet) • Standard USB Keyboard, Mouse, Integrated Audio, necessary Accessories etc. • Software: Pre-Installed Windows latest version (Backup & Recovery), Standard Office Suite, and Antivirus. <p>All computers for Telecenter must be equipped with an Internet filtering system to be controlled at both Telecenter Service Provider and user end, capable of effective operation in accordance with relevant USFCo and government policies.</p> <p>All software in the computers shall be licensed. USF Service Provider shall be responsible for acquiring licenses of all licensed software</p> | Each | 20 | | |
| 1.2 | <p>Multifunction Laser Printers</p> <p>3-in-1 multifunction laser printer with the following minimum specifications:</p> <ul style="list-style-type: none"> • Multi-Function (Black & White): Printer, Copier, Scanner • Network Enabled: Fast Ethernet and WiFi • Print Speed: minimum 21 ppm • Print Resolution: minimum 600*600 dpi • Printer Memory: minimum 128 MB | Each | 1 | | |
| 1.3 | <p>Wireless Router</p> <p>Wireless Router with the following minimum specifications:</p> <ol style="list-style-type: none"> a) IEEE 802.11 b/g/n standards b) 1 WAN and 4 LAN Ports, Gigabit Ethernet connections on both WAN and LAN ports c) DHCP Server, DHCP Client, DHCP Relay, NAT, PAT, NAPT d) Dual-stack IPv4 and IPv6 e) Port-based and 802.1Q tag-based VLANs support f) Static routing g) Routing Information Protocol (RIPv1 and RIPv2) h) Inter-VLAN routing i) Access Control <ul style="list-style-type: none"> • IP-based access control list (ACL) • MAC-based wireless access control • Configurable Firewall with Stateful Packet Inspection (SPI) • Peer-to-peer control • Secure Management <ul style="list-style-type: none"> • Wi-Fi Protected Access (WPA) and Advanced Encryption Standard (AES) (WPA2) • Simple Network Management Protocol (SNMP) j) Certification <ul style="list-style-type: none"> • FCC Class B | Each | 2 | | |
| 1.4 | <p>Multimedia Projector</p> <p>Multimedia projector with the following minimum Specifications:</p> <ul style="list-style-type: none"> • Resolution: 1024 × 768 pixels • Brightness: Minimum 3000 lumens • Lamp: 245Wx1, lamp replacement cycle (lamp power: 3,000 hours) • Projector Screen: Wall mounted 9ft x 12ft (W x H). | Each | 1 | | |

| | | | | | |
|--|---|-----------|--------------------------|--|--|
| 1.5 | Network Switch Network switch with the following minimum Specifications: • 24 Ports (10/100/1000 Ethernet) • 4 Gigabit Uplink Ports (2 SFP and 2 Ethernet) • RAM: min 64MB or above • Flash Memory: min 32MB or above • Features: - DHCP - ARP Support - Load Balancing - VLAN Support - IPv4 and IPv6 Support - MAC Address Filtering - SSL Encryption Support | | 1 | | |
| 1.6 | TOTAL | | | | |
| Part-2 Specification of Furniture | | | | | |
| 2.1 | Computer Tables 1. The furniture shall be robust and rugged. 2. Computer table of size: 90 cm wide* 60 cm deep * 75 cm high made of 18 mm pre laminate particle board. 3. Top of table finished with pre laminated particle board and edge banding with same color PVC tape. 4. Keyboard tray fitted with necessary fittings. | Each | 25 | | |
| 2.2 | Computer Chairs 1. The chair should have 360 degrees revolving facility with PU armrests and Sturdy Nylon chair base. 2. The chairs should be of high quality with wheels and breathable fabric upholstery. | Each | 30 | | |
| 2.3 | Waiting area furniture 1. Sturdy 3 seater sofas with steel base and mettalice seats | Each | 20 | | |
| 2.4 | TOTAL | | | | |
| Part-3 Specification of CCTV System | | | | | |
| 3.1 | Surveillance Cameras a. 3 indoor and 1 outdoor b. HD 2MP Progressive Scan CMOS Sensor c. Day/Night Mode d. Minimum IR distance 20m e. Manual and schedule recording f. Outdoor camera must comply IP66 ratings | Each | 4 | | |
| 3.2 | Digital Video Recorder (DVR) a. Storage Capacity: 30 days backup with 4 cameras running 24hrs b. Ports: 8 | Each | 1 | | |
| 3.3 | LCD for Surveillance a. Minimum 21" b. Supporting stand desk / wall mount | Each | 1 | | |
| 3.4 | TOTAL | | | | |
| Part-4 Specification of Queue Management System | | | | | |
| 4.1 | 1. Automatic Call Processer 2. Call routing\Pass\Delay process 3. Determine Working Hours 4. LED Display System and Sound System 5. Ticket Dispenser 6. Minimum capacity to manage five separate services | Each | 1 | | |
| 4.2 | TOTAL | | | | |
| Part-5 Specification of Fiber Optic System | | | | | |
| 5.1 | Terminal Multiplexer (at Telecenter) with minimum capacity of One STM4 for backbone connectivity and one STM1, 40 E1s, 2 FEs and 2 GE interfaces. | Each | 1 | | |
| 5.2 | Laying of Optic Fiber cable (minimum 8 Fiber- G.652.D or G.655) from nearest Optic Fiber Node to Telecenter. | Per Meter | To be proposed by bidder | | |
| 5.3 | TOTAL | | | | |
| GRAND TOTAL OF EQUIPMENTS | | | | | |

Note:

**Bill of Quantities without price will be submitted with Technical Proposal
Priced BoQs will be submitted as a part of Financial Proposals**

Schedule C

Locations of Telecenters

Schedule C will be provided to the registered Bidders

SCHEDULE D

USF Project Implementation and Payment Schedule

1. The USF funding shall consist of a total payment of Pakistan rupees [*insert total amount of USF funding*] (all taxes included) calculated on the basis of Telecenter as per details mentioned in RFA, payable by USFCo to the USF Service Provider in specific installments in accordance with this Schedule D. All USF payments shall be payable in Pak Rupees (PKR).

2. Subject to the provisions of Schedule K of the Agreement and this Schedule D, the USF Funding shall be payable in accordance with following schedule of payments. The payments shall include an initial mobilization payment and the Project Implementation Milestones and amounts identified in Table 1 for CAPEX and Table 2 for OPEX.

Table 1: CAPEX Payments

| Project Mobilization Payment | | Installment Payable | Total Amount Paid |
|--|---|---|-------------------------|
| Payable within fifteen (15) Business Days of Effective Date or from the date of invoice as the case may be. The mobilization advance shall be adjusted, proportionately, against each of the following milestone payments. | | 20% | PKR [xxx] |
| Milestone Number | Project Implementation Milestone | Installment Payable (percentage of USF Funding) | Total Amount to be Paid |
| 1 | Completion of grey structure (foundation, walls, roof, and plaster) of all the buildings of the Lot | 25% | PKR [xxx] |
| 2 | Finishing of all the Building of the Lot in every aspect | 25% | PKR [xxx] |
| 3 | Deployment of Optic Fiber cable for the whole lot | 25% | PKR [xxx] |
| 4 | Deployment of Renewable Power Solution, delivery of equipment & Commissioning of Telecenters and issuance of provisional acceptance by USF for the whole lot. | 25% | PKR [xxx] |

Table 2: OPEX Payments

| S.No | Quarterly OPEX Payment | Details |
|------|------------------------|---|
| 1 | Installment 1 | <p>OPEX payment for the Telecenter’s operation will be provided to the Telecenter’s service provider on quarterly basis for the five years of Telecenter’s operation, in twenty installments. The OPEX will start after acceptance of the fourth milestone of CAPEX payment i.e. “Deployment of Renewable Power Solution, delivery of equipment & Commissioning of Telecenters of the complete lot”. The OPEX installment for a specific quarter will be due after verification of quarterly reports submitted by the Telecenter Service provider in accordance Article 7.01 of the BOT Agreement.</p> |
| 2 | Installment 2 | |
| 3 | Installment 3 | |
| 4 | Installment 4 | |
| 5 | Installment 5 | |
| - | | |
| - | | |
| - | | |
| - | | |
| - | | |
| - | | |
| - | | |
| 18 | Installment 18 | |
| 19 | Installment 19 | |
| 20 | Installment 20 | |

3. Timing of completion of each of the Project Implementation Milestones set out in the table above shall be at the discretion of the USF Service Provider however the USF Service Provider must achieve first two (02) Project Implementation Milestones within Nine (09) months after the contract signing and the implementation of whole lot should be completed within eighteen months from the signing of the contract.
4. USF Service Provider can only claim payments for a particular milestone upon issuance of milestone completion certificate by USF upon the fulfillment of relevant KPIs. The completion of the milestone will be certified by the Technical Auditor (TA) appointed by USF for the project.
5. Once the KPIs for the milestone have been successfully completed, the Service Provider will claim the milestone in writing to USF Co and TA. The TA will verify the claim of the Service Provider regarding the completion of these KPIs and USF will issue a certificate of completion/rejection for that specific stage.
6. The USF Service Provider shall provide USFCo with a notice in writing (a “Project Implementation Milestone Notice”) upon completion of each Project Implementation Milestone along with all the pre-requisite data/certificates.
7. the Technical Auditor shall either:
 - (a) certify in writing (a “Project Implementation Milestone Certification”) to USF that the Project Implementation Milestone has been completed; or
 - (b) indicate in writing to USF that the Project Implementation Milestone has not been completed, providing reasons for this conclusion.

8. Where the USF Service Provider disputes any notice from USF that a Project Implementation Milestone has not been completed, the dispute will be resolved in accordance with Schedule M of the BOT Agreement.
9. Each installment of the USF Funding will be paid to the USF Service Provider within 45 Business Days of USFCo issuing a Project Implementation Milestone Certification, certifying that the USF Service Provider has completed the relevant Project Implementation Milestone.
10. The USF Funding shall be paid by a form of bank instrument selected by USFCo at its sole discretion, but all payments by USFCo to the USF Service Provider shall comply with all applicable laws, rules and regulations.
11. The USF Service Provider shall send USFCo a written confirmation of receipt of all USF Funding.
12. The reserve price is inclusive of any and all taxes. Sales Tax (Provincial and Federal), duties, taxes, local cess, toll taxes, annual property tax etc will be the responsibility of the Service Provider throughout the entire duration of the BOT agreement. All payments to the Service Provider will be subject to application of withholding taxes (Sales Tax & Income Tax) as per the prevailing federal and [provincial laws, in force, at the time of making the payment. The USF Telecenters Service provider shall ensure to issue a Sales Tax invoice (as per prevailing sales tax regulations) along-with each milestone invoice, separately mentioning the sales tax amount.

SCHEDULE E

Material Events of Default

1. Breach by USF Service Provider

Each of the following shall be deemed to be a material breach by the USF Service Provider for which USFCo will be entitled to terminate this Agreement in accordance with Article Ten of BOT Agreement:

- (i) Failure by USF Service Provider to meet the Final Implementation Date(s) identified in Schedule D.
- (ii) The accumulation of liquidated damages under clause 4.01 (a) (iii) equal to ten percent (10%) of the USF Funding amount payable for the affected Project Implementation Milestone(s).
- (iii) Repeated failure to meet the USF Broadband Service Availability and Quality Specifications set out in Schedules A, the cumulative effect of which significantly affects public use or enjoyment of the USF Telecenter Services.
- (iv) The occurrence of a change in ownership or Control of the USF Telecenters that is contrary to Article Three.
- (v) Failure by the USF Service Provider to maintain its incorporation in and under the Companies Ordinance or to comply with eligibility requirements for Pakistani companies that are established under applicable Pakistani laws.
- (vi) Any misconduct of the USF Service Provider, or any other Person on the USF Service Provider's behalf, described in section 52 of the RFA.
- (vii) Failure of the USF Service Provider to adequately address any matters identified by an applicable regulatory authority falling within the scope of the Telecenter's Services, to such regulatory authority's reasonable satisfaction.
- (viii) Use of pirated software by the USF Service Provider in Telecenters.
- (ix) The USF Service Provider commits any other material breach of this Agreement which breach is not capable of being cured.
- (x) Failure of the USF Service Provider to execute the equipment lien pursuant to Section 6.02 of the BOT Agreement and to obtain and provide to USFCo the unconditional no objection certificates of its secured creditors for the purpose.

(xi) The failure to timely apply for, and maintain, utility connections at the Telecenter in the name of USFCo.

2. Breach by USFCo

It shall be deemed to be a material breach by USFCo for which the USF Service Provider will be entitled to terminate this Agreement in accordance with Article Ten, where:

(i) The Technical Auditor fails to take any action in response to a Project Implementation Milestone Notice (reference: Schedule D); or

(ii) USFCo fails to pay undisputed payments of the USF Funding due to the USF Service Provider exceeding PKR 10,000,000./-, after a lapse of 45 Business Days after the due date.

SCHEDULE F

Irrevocable Bank Guarantee

Issuing Bank: _____
(insert name and address of issuing bank)

Date of Issue: _____

Bank Guarantee No: _____

Maximum Amount of Bank Guarantee _____ (40% of funding amount)
(insert amount, in PKR, in numbers and words)

Applicant: _____
(insert full legal name and address of the USF Service Provider)

Beneficiary:
Universal Service Fund
5th Floor, Habib Bank Tower
Jinnah Avenue
Islamabad

On behalf of our client (the "Applicant") we hereby issue in your favor this Irrevocable Bank Guarantee (the "IBG") for the maximum amount identified above and in consideration of, and as security for the performance of, the Telecenter Build Operate Transfer Agreement ("BOT Agreement") entered into (or to be entered into) between the Beneficiary and the Applicant.

The IBG is unconditional, and will be paid, forthwith upon your first written demand and without recourse to any person and without your having to substantiate your demand, against presentation of the following documents:

- 1) The Beneficiary's demand on the Bank in the form attached hereto as Appendix "A", signed by the CEO or Company Secretary of the Beneficiary, indicating the amount to be drawn under this IBG, the number of this IBG, the date of issue of this IBG, and the name of our Bank.
- 2) This IBG for endorsement by us of the amount drawn and, on final drawing, for cancellation.

This IBG is irrevocable and shall remain valid for six (6) years and six months, i.e., up to and including the [**date**] day of [**month**], [**year**]

Partial drawings are permitted.

We will honor each drawing made in conformity with the terms of this IBG without enquiring whether you have, as between you and the Applicant, the right to make such drawing and without recognizing any claim of the Applicant.

This IBG shall be governed by and construed in accordance with the laws of Pakistan. We hereby irrevocably and unconditionally accept and submit to the exclusive jurisdiction of the Courts at Islamabad.

The Bank's liability to the Beneficiary under this IBG shall be that of a principal debtor and Beneficiary may, at its option, treat the Bank as primarily liable, as sole, original and independent obligor or principal debtor in the first instance, for the guaranteed amount.

The Bank's obligations as set out herein shall be continuing obligations and shall not be modified or impaired upon the happening, from time to time, without our assent or otherwise, of any event, including but not limited to the following:

- i) any time given, indulgence or forbearance shown by the Beneficiary under the BOT Agreement or under this IBG;
- ii) the Beneficiary agreeing with the Applicant any variation or departure or amendment of or from the BOT Agreement or if the BOT Agreement should be terminated or cease to exist in whole or in part;
- iii) the failure, omission or delay by the Beneficiary to enforce, ascertain, or exercise any right, power or remedy under or pursuant to the terms of the BOT Agreement or this IBG;
- iv) the bankruptcy, insolvency or other failure or financial disability of the Applicant;
- v) any failure of the Applicant to comply with the requirements of any law, regulation or order;
- vi) the winding up, administration, dissolution, merger or amalgamation or bifurcation with or into other entities, reorganization or any other alteration, change in constitution, status, function, legal structure, control or ownership, constitution or corporate identity (or any act analogous to all or any of the foregoing) of the Applicant;
- vii) any legal limitation or incapacity relating to the Applicant;
- viii) any other act or omission of the Beneficiary or any other circumstances or events which would otherwise discharge, impact or otherwise affect any of our obligations contained in this IBG or any of the rights, powers or remedies conferred upon the Beneficiary by the BOT Agreement.

Our liabilities and obligations under this IBG shall not be impaired by the BOT Agreement being invalid, void or unenforceable or by any breach, frustration or non-fulfillment of the BOT Agreement or by any matter or claim by any person in respect thereof, or in the event that any claim by the Beneficiary against the Applicant is disputed or contested or referred for settlement to mediation and/or to arbitration and/or to litigation in any court or tribunal or other forum.

No set-off, counter claim, reduction, or diminution of any obligation that the Bank has or may have against the Beneficiary shall be available to the Bank against the Beneficiary in connection with any of the Bank's obligations under this IBG. The Bank shall make all payments under this IBG in full, without set-off or counterclaim and free and clear of any deductions or withholdings in immediately available, freely transferable, cleared funds for value on the due date to the Beneficiary, provided that if the Bank is required to make any deduction or withholding from such payments under applicable law, it shall pay to the Beneficiary such additional amount necessary to ensure that the Beneficiary receives an amount equal to the amount which it would have received had no such deduction or withholding been made.

No payment to the Beneficiary under this IBG pursuant to any judgment or order of any court or otherwise shall operate to discharge the Bank's obligations in respect of which it was made unless and until payment in full shall have been received by the Beneficiary.

No delay or failure to exercise any right or remedy under this IBG by the Beneficiary shall constitute a waiver of such right or remedy. No single or partial exercise of any right or remedy shall preclude any other or further exercise thereof or of any other right or remedy. No waiver by the Beneficiary shall be valid unless made in writing.

The rights and remedies of the Beneficiary under this IBG are cumulative and not exclusive of any right or remedy available to it under any contract, law, statute, regulation, rule, order, notification or policy.

This IBG shall be binding upon and inure to the benefit of the Beneficiary and the Bank and to their respective successors and assigns, provided that the Bank shall not assign or transfer all or any of its rights, benefits and obligations under this IBG except with the prior written consent of the Beneficiary. The Beneficiary may at any time assign all or any part of its rights and benefits hereunder and in such event the assignee shall have the same rights against the Bank as it would have had if it had been a party hereto as the Beneficiary.

The Bank hereby declares and confirms that under its constitution and applicable laws and regulations, it has the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations it has undertaken under this IBG, which obligations are valid and legally binding on and enforceable against the Bank under the laws of Pakistan. Further, that the signatory(ies) to this IBG are the Bank's duly authorized officers.

The BANK binds itself, its successors and assigns by these presents sealed with the common seal of the BANK through its duly authorized representatives in accordance with the Bank's

articles of association and having obtained all necessary approvals in that regard, this [insert day] day of [insert month], 20[yy]

Signature and Seal of Issuing Bank

Authorized Signing Officer(s)

Witnesses:

1.

2.

SCHEDULE F/1

Irrevocable Bank Guarantee

Issuing Bank: _____
(insert name and address of issuing bank)

Date of Issue: _____
Bank Guarantee No: _____

Maximum Amount of Bank Guarantee _____ (40% of funding amount)
(insert amount, in PKR, in numbers and words)

Applicant: _____
(insert full legal name and address of the USF Service Provider)

Beneficiary:
Universal Service Fund
5th Floor, Habib Bank Tower
Jinnah Avenue
Islamabad

On behalf of our client (the "Applicant") we hereby issue in your favor this Irrevocable Bank Guarantee (the "IBG") for the maximum amount identified above.

The IBG is available with the Bank, and will be paid, against presentation of the following documents:

- 1) The Beneficiary's demand on the Bank in the form attached hereto as Appendix "A", signed by the CEO of the Beneficiary, indicating the amount to be drawn under this IBG, the number of this IBG, the date of issue of this IBG, and the name of our Bank.
- 2) This IBG for endorsement by us of the amount drawn and, on final drawing, for cancellation.

This IBG is irrevocable and shall remain valid for six (6) year 6 months up to and including the [**date**] day of [**month**], [**year**]

Partial drawings are permitted.

We will honor each drawing made in conformity with the terms of this IBG without enquiring whether you have, as between you and the Applicant, the right to make such drawing and without recognizing any claim of the Applicant.

This IBG shall be governed by and construed in accordance with the laws of Pakistan. We hereby irrevocably and unconditionally accept exclusive jurisdiction of the Courts at Islamabad.

Issuing Bank

Authorized Signing Officer

Appendix "A"

To Irrevocable Bank Guarantee No. _____

Issued by _____ Bank

Drawn Under IBG No.: *(insert IBG number and date)*

To: *(insert name and address of Issuing Bank)*

The undersigned hereby demands that (Name of Issuing Bank) pay to the order of the undersigned the sum of Pakistan rupees _____ under the IBG described above.

Dated: *(insert date)*

Universal Service Fund

CEO/Company Secretary (specify as applicable)

SCHEDULE G

Letter of Lien

[dd/mm/20[yy]

Universal Service Fund
Fifth Floor, HBL Tower,
Jinnah Avenue, Islamabad

Sub:

LETTER OF LIEN TO THE EXTENT OF [¹]

Dear Sirs,

In consideration of you, Universal Service Fund, a company set up under the Companies Ordinance 1984 having its principal office at Fifth Floor, HBL Tower, Jinnah Avenue, Islamabad through its Chief Executive Officer, (hereinafter referred to as "USFCo"), providing/agreeing to provide financing to the tune of Rs. to us under USF Services and (Build, Operate, Transfer Agreement) BOT Agreement dated _____, and as per Clause 6.02 of the BOT Agreement and Rule 26(6) of USF Rules 2006, we, Limited, a company incorporated under the Companies Ordinance 1984 and having its registered office at _____ (hereinafter referred to as the "USF Service Provider"), do hereby create Lien on the assets specified in Annex-I hereto (the "Property under Lien") in your favor for the purpose of securing the infrastructure, equipment and other items purchased from USF funding for the LOT () for a period of six years from the Effective Date of BOT Agreement or repayment of the funding Amount up to an amount of Rs. [²] (Rupees _____ Only) and other moneys payable under the BOT Agreement.

We further, irrevocably and unconditionally, undertake, agree, covenant and confirm as follows:

ARTICLE ONE - LIEN

1.01 Property under Lien

We hereby create lien in favor of USFCo all our moveable properties mentioned in Annex I to this Letter and our assets as may hereafter be acquired by us for Establishment of the Telecenters under the BOT Agreement, together with the benefits of all rights relating thereto (all such properties and assets herein to be collectively called the "Property under

¹ Insert value of USF Telecenter equipment

² Insert value of USF Network Telecenter equipment

Lien”) as security for the establishment of Telecenters in accordance with the BOT Agreement, or repayment by us of the USF Funding and other moneys payable under the BOT Agreement.

1.02 No further lien

The Property under Lien shall be kept and held always distinguishable and as USFCo’s exclusive property specially appropriated to the security and we shall not create any mortgage, charges, lien or encumbrance affecting the same or part with the Property under Lien except with the prior permission in writing of USFCo.

1.03 Right to inspect

We hereby permit USFCo, its agents, nominees and employees from time to time after giving reasonable notice to enter upon, during normal working hours, any premises wherein the Property under Lien or any part thereof may for the time being be and to view/inspect and value the same and take inventories thereof and shall render to USFCo, its agents, nominees and employees all facilities and reasonable assistance as may be required for any of the purposes aforesaid.

1.04 Free from distress

We shall punctually pay all rents, rates, taxes and other outgoing expenditures for the premises wherein the Property under Lien shall be stored and keep the same free from distress.

1.05 Insurance

During the validity of the BOT Agreement, we shall keep the Property under Lien insured in accordance with Schedule I of the BOT Agreement.

1.06 No charge

(a) We undertake that during the term of the BOT Agreement the listed machinery and equipment (as further defined in the BOT Agreement) shall not be removed, disposed of or impaired in any manner whatsoever, except for repair, maintenance or replacement in the ordinary course of business.

(b) We also undertake that this Lien also extends to all equipment deployed at USF Telecenters till these remain in our possession and have not been handed over or transferred to the USFCo.

1.07 Information

The USF Service Provider shall make and furnish to USFCo all statements and reports of the cost and market value of the Property under Lien and a full description thereof and produce such evidence in support thereof as USFCo may from time to time reasonably require.

ARTICLE TWO - REPRESENTATION AND INDEMNIFICATION

2.01 Right to enter

In the event of, we committing a breach of any of the terms and conditions of this letter or of the BOT Agreement, USFCo and its officers and agents shall be entitled without notice to us and at our risk and expense and if so required as attorneys for and in our name to enter and remain at any place where the Property under Lien shall be and to take possession or recover and receive the same and/or appoint any officer or officers of USFCo as receiver or receivers of the Property under Lien, confiscate the same, and/or sell by public auction or private contract or otherwise dispose off or deal with all or any part of the Property under Lien and to enforce, release, settle, compromise and deal with any of aforesaid without being bound to exercise any of these powers or being liable for any loss in the exercise thereof, except where such loss is caused by the negligence or misconduct of USFCo or its officers, agents or receivers and without prejudice of USFCo's other rights and remedies including the right of legal action against us and to apply the net proceeds of such sale in or towards the repayment of the USF Funding and any other moneys that have become due under the BOT Agreement and have not been paid by us and we hereby agree to accept USFCo's account of sales and realization, except in case of any error or omission, and to pay any shortfall or deficiency therein shown. Provided, however, that the powers hereunder shall always be exercised to the extent of the Property under Lien.

2.02 Clear Title

We hereby declares that all the Property under Lien is our absolute property, at our sole disposal and free from any prior charges or encumbrance and that we have not done or knowingly suffered or been party or privy to anything whereby we are in any way prevented from creating lien over Property under Lien in the manner aforesaid and that we have obtained and provided to you the unconditional no objection certificates of our secured creditors so as to enable USFCo to register the equipment lien with the relevant Company Registration Office of the Securities and Exchange Commission of Pakistan. We have further provided to you our Board Resolution approving this Lien and the execution and delivery of this letter by our authorized representative(s) and we declare that such representative(s) have been duly authorized, in terms of our Articles of Association and through our aforesaid Board Resolution, to affix our common seal unto this letter. We shall do and execute at our cost all such acts and things for further and more particularly ensuring that the rights and remedies regarding the Property under Lien or any part thereof, under this letter, remain fully enforceable for the benefit of USFCo, as may be required by USFCo, and for giving better effect to this letter, we authorize and irrevocably appoint USFCo and/or its officers as attorney or attorneys for and in our name to act on our behalf and to execute or do any acts or things which we ought to execute or do under this letter and generally to use our name in the exercise of the powers hereby conferred.

2.03 Indemnification

a) We hereby agree and undertake to comply with all provisions of the various laws, orders, regulations, rules and notifications, already promulgated or that may be promulgated hereafter by the Government or any other authority.

b) Nothing herein contained shall prejudice any of USFCo's rights or remedies in respect of any present or future security, guarantee, obligation or decree for our any indebtedness or liability.

c) We shall indemnify and keep USFCo safe, harmless and indemnified against all losses, damages, detriments, harms, claims, liabilities, demands, actions, proceedings, costs, charges and expenses that may reasonably be sustained by or be made against or incurred by USFCo or to which USFCo may become a party hereunder, provided the same have arisen solely and directly from and default or breach of our obligations under the BOT Agreement and this Letter.

2.04 Continued security

The security hereunder shall operate as continuing security for all our liabilities notwithstanding any partial performance that may be made from time to time and continue till we shall discharge our obligations under this letter and the BOT Agreement in accordance with their respective terms, whereupon this security shall stand discharged.

ARTICLE THREE - GENERAL

3.01 Remedies

Nothing herein contained shall extinguish, derogate from, curtail, prejudice, impair or otherwise affect all or any of USFCo's rights and remedies under the said BOT Agreement or that may otherwise be available to USFCo under any law in respect of the USF Funding or the BOT Agreement.

3.02 No Waiver

If USFCo does not enforce any of its rights hereunder in the event of breach or noncompliance by us with the terms and conditions herein contained, the inaction or omission of USFCo to take action shall not be treated as waiver or abandonment of any such rights.

3.03 Applicable Law and Territorial Jurisdiction

This Letter shall be governed by and construed in accordance with the laws of Pakistan and the Courts at Islamabad shall have exclusive jurisdiction in all matters under this letter.

USF SERVICE PROVIDER

Per:

[insert name and title]

SIGNED, SEALED AND DELIVERED
(in the presence of)

Witness (1):

[Full name, NIC & Signature]

Witness (2):

[Full name, NIC & Signature]

ANNEX "I" of Schedule G

(As per list attached and updated from time to time)

USF SERVICE PROVIDER

Per:

[insert name and title]

SIGNED, SEALED AND DELIVERED

(in the presence of)

Witness (1):

[Full name, NIC & Signature]

Witness (2):

[Full name, NIC & Signature]

Schedule H

Definitions

1. Definitions

In the BOT Agreement, unless something in the subject matter or context is inconsistent therewith:

“Act” means the Pakistan Telecommunication Act (Re-Organization) Act, 1996 (XVII of 1996) as may be amended, from time to time, and any successor legislation;

“Business Day” means a day other than a Saturday, Sunday or statutory holiday in Pakistan;

“Companies Ordinance” means the Companies Ordinance, 1984 as may be amended, from time to time, or any successor legislation;

“Constating Instruments” includes any certificate of incorporation, certificate of continuance, memorandum and articles of association, by-laws, rules, regulations, circulars, notifications or other instruments by which a body corporate is incorporated or continued under the Companies Ordinance or that governs or regulates the affairs of a body corporate;

“Control” of a Person that is not an individual means the ownership of at least 51% (fifty-one percent) of the voting interests in the subject Person; or the possession, directly or indirectly, of the power to direct or cause the direction of the management of that Person, whether through the ownership of shares, voting, securities, partnership or other ownership interests, agreement or otherwise;

“CPE” means customer premises equipment including modem or router;

“Effective Date” means the effective date of the BOT Agreement, as recorded on the first page hereof;

“Final Implementation Date” means the date identified in paragraph 3 of Schedule D;

“Force Majeure Certification” has the meaning ascribed thereto in Schedule K Section 1(c)(i);

“Force Majeure Event” has the meaning ascribed thereto in Schedule K Section 1(h);

“Force Majeure Notice” has the meaning ascribed thereto in Schedule K Section 1(a);

“GoP” means the Government of Pakistan;

“Indemnification Notice” has the meaning ascribed thereto in Section 08.01(b);

“Internet Services” means the services that the USF Telecenter Service Provider is obliged to provide under Section 2.03(a) and Schedule A;

“LAN” means local area network;

“License” means any telecommunications license granted by the PTA to the USF Telecenter Service Provider, prior to the Effective Date, which authorizes it to provide the USF Broadband Services;

“Optional Services” means services that the USF Telecenter Service Provider is authorized but not required to provide pursuant to this Agreement and any License;

“Parties” means USFCo and the USF Telecenter Service Provider, and **“Party”** means any one of them;

“Performance Bond” has the meaning ascribed thereto in Section 6.01 of BOT Agreement;

“Person” means any individual, firm, company, corporation, partnership, joint venture or other consortium, government or governmental entity;

“Project Implementation Milestones” means the milestones for the roll-out of the USF Telecenter project and related schedule for payment of the USF Funding, set out in Schedule D;

“Project Implementation Milestone Certification” has the meaning ascribed thereto in Schedule D;

“Project Implementation Milestone Notice” has the meaning ascribed thereto in Schedule D;

“Proposal” means the proposal submitted by the USF Telecenter Service Provider, in response to the RFA;

“PTA” means the Pakistan Telecommunication Authority, a statutory body corporate established under section 3 of the Act, and its predecessors and successors;

“Relationship Executive Committee” has the meaning ascribed thereto in Schedule M Section 1(d)(i);

“Relationship Liaison Committee” has the meaning ascribed thereto in Schedule M Section 1(c)(i);

“Relationship Manager” has the meaning ascribed thereto in Schedule M Section 1(b)(i);

“RFA” means the Request for Applications document issued by USFCo on [dd] [mm], 20[yy], including all annexes thereto, as amended or modified by USFCo;

“Report” means a Report required in accordance with Section 7.01 of BOT Agreement;

“Technical Amendment” has the meaning ascribed thereto in Schedule K Section 2(a);

“Technical Auditor” means the person appointed in accordance with Schedule J Section 1(a);

“Term” means the term of the Agreement identified in Section 10.01 of BOT Agreement;

“Telecenter” will be a Community E-Resource Center that will provide public with easy access to USF Broadband Services, and services offered by NADRA. Each Telecenter will be connected to internet through a 10 Mbps broadband, powered through commercial power and supported with renewable energy (Solar) , equipped with 20 computers, digital queue counter, multi-media and other essential network elements (printer/ scanner/ copier) in accordance with Schedule A &B of the BOT Agreement;

“USF Broadband Services” has the meaning ascribed thereto in Schedule A;

“USF Telecenter Services” means the ICTs services offered at Telecenters, in addition to the USF Broadband Services.

“USFCo” means the Universal Service Fund, a company setup under Section 42 of the Companies Ordinance 1984, established by the Government of Pakistan, and its successors;

“USF Contributor” means any Person, whose License includes USF Contribution requirements and is compliant with those requirements;

“USF Funding” means the funding to be paid by USFCo to the USF Telecenter Service Provider on the USF Telecenter Service Provider achieving the Project Implementation Milestones;

“USF Network” means the licensed telecommunication system consisting of the telecommunications network facilities to be deployed by the USF Telecenter Service Provider to provide USF Telecenter Services pursuant to the BOT Agreement;

“USF Rules” means the Universal Service Fund Rules, 2006 (as amended);

“USF Services and Financing Agreement” or **“Agreement”** or **“BOT Agreement”** means the main agreement, all its Schedules and all amendments made hereto by written agreement between the parties;

“USF Telecenter Equipment” means the equipment to be provided by USF Telecenter Service Provider in accordance with BOT Agreement and mentioned in Schedule B; and

“USF Telecenter Service Provider” or **“USF Service Provider”** means the Party, other than USFCo, identified on the first page of this Agreement (referred to as the “Contractor” in the USF Rules).

Schedule I

Insurance

1. Insurance

The Telecenter Service Provider shall maintain or cause to be maintained on behalf of itself and all subcontractors to whom the Telecenter Service Provider has subcontracted (in relation to the establishment and/or operation of the Telecenter) at all times during the Term of this BOT Agreement, in a form and with insurers acceptable to USFCo, the following types of insurance:

(a) **Commercial General Liability Insurance** – Commercial general liability insurance covering liability imposed by law or assumed under contract arising from bodily injury, death or property damage including loss of use, with minimum combined limits of not less than PKR 10,000,000/- [Rupees Ten Million only] per occurrence. Such policy or policies shall be on an occurrence basis and shall provide coverage for full legal defense costs, premises and operational liability, and blanket broad form contractual liability and property damage coverage (including malicious property damage). The policy or policies shall name USFCo as additional insured.

(b) **Property Insurance** – Property insurance covering property and assets used to establish and operate Telecenters on a blanket form basis for all risks of physical loss or damage, with minimum limits equal to the full replacement cost value of the property. The basis of loss settlement shall be replacement cost with like kind and quality.

2. General

(a) All insurance provided for in Section 1 shall be affected with valid and enforceable policies issued by insurance companies that are licensed to do business in Pakistan.

(b) All policies shall be endorsed to contain an agreement by the insurer that the coverage will not be cancelled or changed to the detriment of USFCo, without at least 30 days' prior written notice to USFCo.

(c) Within 30 days of the Effective Date, the Telecenter's Service Provider shall have the insurance specified herein in full force and effect and shall provide USFCo with certificates of insurance as evidence of such insurance in such form and scope acceptable to USFCo. Such proof of insurance shall be updated to maintain its accuracy, within 14 days of any change in coverage. The Telecenter's Service Provider shall notify USFCo promptly and in writing in the event of any termination, expiry, lapse or change in insurance coverage.

(d) The insurance requirements herein do not limit or modify any liability that would otherwise exist or create any liability that would otherwise not exist under this Agreement in the absence of such insurance requirements.

3 Changes in the Insurance Industry

The Parties agree that should any change in the insurance industry materially impact the Telecenter's Service Provider's ability to obtain the insurance and insurance coverage levels set forth in this Schedule I, the Parties will assess such impact and, if deemed necessary by the Parties, negotiate in good faith any amendments to this Schedule I to account for such insurance industry changes, provided however, that nothing herein shall require USFCo to approve of any such amendment.

Schedule J

Technical Auditor

1. Appointment of Technical Auditor

(a) USFCo shall appoint a “Technical Auditor” under this Agreement.

(b) The Technical Auditor may be an external consultant who shall be a person/firm/company of demonstrated telecommunications engineering expertise with special focus on OFC/Broadband technologies, renewable/solar energy solutions; additionally they should have experience of monitoring construction projects.

(c) Where the Technical Auditor is an external consultant, USFCo shall enter into an agreement (the “Technical Auditor Agreement”) with the Technical Auditor. The Technical Auditor Agreement shall:

(i) define the role of the Technical Auditor in accordance with this Agreement;

(ii) prescribe the methodology, tests and reporting structure to be used by the Technical Auditor in performing his or her role;

(iii) set out the fees to be payable, and expenses to be reimbursable, to the Technical Auditor; and

(iv) contain any other provisions that USFCo determines necessary to give effect to the appointment and for the performance of the functions of the Technical Auditor identified in this Agreement. Once executed, USFCo shall make a copy of the Technical Auditor Agreement available to the Telecenter’s Service Provider.

(d) USFCo shall be solely responsible for any fees to be payable, and expenses to be reimbursable, to the Technical Auditor.

(e) If the Technical Auditor resigns or otherwise ceases to perform the intended functions before the end of this Agreement, or if USFCo decides to replace the Technical Auditor at any time, USFCo shall appoint a replacement Technical Auditor who, for all purposes of this Agreement, shall from and after such appointment perform the functions of the Technical Auditor.

2. Role of Technical Auditor

The Technical Auditor shall perform the following functions, in accordance with this Agreement and the Technical Auditor Agreement:

(a) making a determination as to whether or not any of the USF Network Project Implementation Milestones identified in Schedule D have been met, which may include, but is not limited to, one or more of the following:

(i) making a determination as to whether or not the project implementation meets the specifications and requirements identified in Schedules A and B;

(ii) issuing a Project Implementation Milestone Certification to the Parties to indicate that a Project Implementation Milestone has been completed in accordance with Schedule D; and

(iii) issuing an indication in writing to the Parties that a Project Implementation Milestone has not been completed in accordance with Schedule D; and

(b) The technical auditor will provide certification at the following stages, by conducting onsite visits,

| Visit No. | Stage | Milestone |
|-----------|----------------------------------|-----------|
| 1 | Foundation / DPC | MS 1 |
| 2 | Roof pouring | MS 1 |
| 3 | Completion of Grey Structure | MS 1 |
| 4 | Electrical wiring / Plumbing | MS 2 |
| 5 | Interior (windows / paint) | MS 2 |
| 6 | Building completion and handover | MS 2 |
| 7 | Optic Fiber Deployment | MS 3 |
| 8 | Furniture & fixtures | MS 4 |
| 9 | Solar Power Implementation | MS 4 |
| 10 | System Integration & Readiness | MS 4 |
| 11 | Final Site Handover | MS 4 |

The number and frequency of visits are at the sole discretion of USFCo.

(c) making a determination as to whether or not a Force Majeure Event exists in accordance with Schedule K, which may include, but is not limited to, one or more of the following:

(i) issuing a Force Majeure Certification in accordance with Schedule K;

(ii) issuing an indication in writing to the Parties that a Force Majeure Event has not occurred in accordance with Schedule K; and

(iii) proposing a Technical Amendment made in accordance with Schedule K.

3. Cooperation with Technical Auditor

The Telecenter Service Provider shall co-operate with the Technical Auditor, in performing his functions pursuant to this Agreement and the Technical Auditor Agreement, including by:

- (a) providing access to all USF funded facilities and systems, including for equipment testing purposes; and
- (b) providing any information regarding the USF Network or the USF Broadband Services requested by the Technical Auditor, and related access to technical personnel of the Telecenter Service Provider.

Schedule K

Force Majeure

1. Force Majeure

(a) If and to the extent that a Party's performance of any of its obligations pursuant to this Agreement is prevented, hindered or delayed by reason of a Force Majeure Event and such non-performance, hindrance or delay could not have been prevented by reasonable foresight or precautions, and cannot reasonably be circumvented through the use of alternate sources, work-around plans or other means, then the non-performing, hindered or delayed Party may give written notice (a "Force Majeure Notice") to the other Party.

(b) A Force Majeure Notice shall contain reasonable particulars of the Force Majeure Event in question and the effect of such Force Majeure Event as it relates to the obligations of the non-performing, hindered or delayed Party hereunder.

(c) Within 10 Business Days of receipt of the Force Majeure Notice, the other Party shall either:

(i) certify in writing (a "Force Majeure Certification") to the non-performing, hindered or delayed Party that a Force Majeure Event has occurred; or

(ii) indicate in writing to the non-performing, hindered or delayed Party that a Force Majeure Event has not occurred, providing reasons for this conclusion.

(d) Where the other Party has issued a Force Majeure Certification in response to a Force Majeure Notice in accordance with Section 1(c), the Parties may agree to amend the BOT Agreement in such a way that adapts to the circumstances of the Force Majeure Event while providing similar value for money as the original Agreement and achieving the same objective.

(e) Where the other Party has not issued a Force Majeure Certification in response to a Force Majeure Notice in accordance with Section 1(c), the non-performing, hindered or delayed Party may give a copy of the Force Majeure Notice to the Technical Auditor, appointed under Schedule J, provided that it notifies the other Party in writing that it has elected to do so.

(f) Within 10 Business Days of receipt of the Force Majeure Notice, the Technical Auditor will either:

(i) issue a Force Majeure Certification indicating to the Parties that a Force Majeure Event has occurred and whether a Technical Amendment to the BOT Agreement is required in accordance with Section 2; or

(ii) indicate in writing to the Parties that a Force Majeure Event has not occurred, providing reasons for this conclusion.

(g) Where a Force Majeure Certification has been issued in response to the Force Majeure Notice of either Party, such non-performance, hindrance or delay, as applicable, of those obligations affected by the Force Majeure Event will not constitute a default hereunder by that Party for as long as such Force Majeure Event continues and such Party continues to use its reasonable commercial efforts to re-commence performance whenever and to whatever extent possible without delay, including through the use of alternate sources, workaround plans or other means.

(h) For the purpose of this Agreement, "Force Majeure Event" means any of the following events beyond the control of the Parties:

(i) With respect to the obligations of both parties:

(I) lightning, storms, earthquakes, landslides, floods, tsunamis, washouts and other Acts of God;

(II) strikes, lockouts or other industrial disturbances of the party;

(III) civil disturbances, sabotage, war, blockades, insurrections, terrorist actions, vandalism, riots, epidemics;

(IV) any law, order proclamation, regulation, ordinance, demand or requirement of any governmental authority;

(V) any other material event that could reasonably be considered to be force majeure by reason that it is beyond the control of the Party affected; and

(ii) With respect to the obligations of the USF Telecenter Service Provider alone, substantial or material fires, explosions, breakage of or other accidents to plant, machinery, equipment or other facilities of the Telecenter Service Provider; but does not include the inability of either Party to obtain funding or any other financial inability on the part of either Party.

2. Technical Amendments

(a) Where the Technical Auditor issues a Force Majeure Certification to the Parties in accordance with Section 1, indicating that a Force Majeure Event has prevented the establishment and operation of Telecenters as described in Schedule C or in accordance with the implementation and payment schedule described in Schedule D, the Technical Auditor may prepare proposed amendments to one or more of Schedules C, D, F and G, and submit the proposed amendments (a "Technical Amendment") in writing to the Parties.

(b) If the Technical Auditor submits a Technical Amendment in accordance with Section 2(a), then one or more of the Schedules to this Agreement may also be the subject of amendments to be proposed by the Technical Auditor, to the extent that, in the professional opinion of the Technical Auditor, such further amendments are required by the Technical Amendment.

(c) Notwithstanding any other provisions of this Schedule, any Technical Amendment must be prepared by the Technical Auditor in accordance with the following:

(i) the Technical Auditor shall consult with USFCo and the Telecenter Service Provider prior to submitting the Technical Amendment;

(ii) the Technical Amendment shall, in the professional opinion of the Technical Auditor, provide similar value for money as the original Schedule C and other Schedules to this Agreement, and achieve substantially the same universal service objectives; and

(iii) the Technical Amendment shall not increase the costs of implementing the Telecenter Project.

(d) Any dispute regarding a Technical Amendment submitted by the Technical Auditor shall be handled in accordance with Schedule M.

3. No Payment for Unperformed Services

(a) If the Telecenter Service Provider fails to establish Telecenters or operate it in accordance with the BOT Agreement due to a Force Majeure Event, any USF funding payments will be adjusted in a manner such that USFCo is not responsible for any payment for a Project Implementation Milestone that the Telecenter Service Provider fails to meet.

(b) Where a Project Implementation Milestone is only partially completed due to a Force Majeure Event for which a Force Majeure Certification has been issued, and the Force Majeure Event is likely to continue for a substantial period of time, the payment for such Project Implementation Milestone for the period of the Force Majeure Event will be adjusted on an equitable basis taking into account, among other things, the length of the resulting delay and the progress achieved towards the Project Implementation Milestone.

4. Duration of Force Majeure Event beyond Six Months

Notwithstanding anything to the contrary in this BOT Agreement, if a Force Majeure Event during which the Telecenter Service Provider is unable to complete one or more Project Implementation Milestones in accordance with this Agreement, lasts for more than six months, then:

(a) subject to section 3(b), USFCo will have no obligation whatsoever to pay part of the funding for the uncompleted work or any future work of the Telecenter Service Provider under this Agreement; and

(b) the USF Telecenter Service Provider may be deemed by USFCo to be in material breach of this Agreement in accordance with section 10.03 of BOT Agreement, at USFCo's sole discretion; however, USFCo shall not be entitled to exercise any of the remedies identified in Sections 4.01 and 4.02 of BOT Agreement in connection with the circumstances of the Force Majeure event.

Schedule L

Representatives and Warranties

1. Mutual Representations and Warranties

Each of the USF Telecenter Service Provider and the USFCo represents and warrants to the other that:

- (a) it is duly organized and validly existing under the laws of Pakistan;
- (b) that it has all right and authorization, and has obtained all consents necessary or desirable to execute, deliver and perform this BOT Agreement and (in the case of the USF Telecenter Service Provider) the lien pursuant to Section 6.02 of this BOT Agreement;
- (c) nothing in this Agreement, nor the performance of any obligations thereunder, will conflict with such party's Constatng Instruments, any law or any other person's rights; and
- (d) to the best of its knowledge, there are no pending suits threatened against such party that would affect the USF Broadband Services or the performance of obligations under this BOT Agreement.

2. Representations and Warranties of USF Telecenter Service Provider

The Telecenter Service Provider further represents and warrants to USFCo that:

- (a) unless the Telecenter Service Provider obtains USFCo's prior written approval, all equipment installed by the Telecenter Service Provider in Telecenter Project shall be new when first installed and shall comply with any Pakistani type-approval requirements and internationally recognized standards;
- (b) the Telecenters established shall at all times comply with all applicable Pakistani laws and regulations including, but not limited to, construction, telecommunications, environmental, import and export regulations;
- (c) all equipment installed by the Telecenter Service Provider in its Telecenter Project will be maintained by the Telecenter Service Provider in good working order, ordinary wear and tear excepted;
- (d) the Telecenters established and subsequently operated by the Telecenter Service Provider will meet or exceed the specifications identified in the Proposal;

(e) it has, and will have (either by itself, or in conjunction with its affiliates, or its subcontractors), the skills, qualifications, expertise and experience necessary to construct and operate the Telecenters in accordance with the BOT Agreement;

(f) all representations and warranties made in the Proposal as to facts materially related to the establishment of Telecenters including facts pertaining to the Telecenter Service Provider's corporate structure, organization, operations, general skills and capabilities relevant to the establishment and operation of Telecenters, remain true and correct and will be observed by the Telecenter Service Provider in all material respects;

(g) the Telecenter Service Provider is under no current obligation or restriction, nor will it knowingly assume any such obligation or restriction, that does or would in any way interfere or conflict with the operation of this Agreement; and

Schedule M

Dispute Resolution

1. Dispute Escalation Process

(a) The Parties shall act reasonably in interpreting the BOT Agreement and the Schedules. In the event of a dispute under the BOT Agreement, the Parties will first engage in the dispute escalation processes identified in this Section 1. The Parties also agree to use reasonable good faith efforts to resolve all disputes.

(b) Resolution by Relationship Managers

(i) Each of the Parties will appoint managers (each a "Relationship Manager") within 30 days of the Effective Date. Each Relationship Manager will be familiar with the BOT Agreement and related documentation. If a Party replaces or reassigns its Relationship Manager, that Party will immediately notify the other Party of the change.

(ii) Either Party may refer a dispute to the Relationship Managers by preparing a written notice describing the nature of the dispute and summarizing related information (the "Dispute Notice"). The Relationship Managers will meet within three Business Days of receipt of the Dispute Notice to review the information with the objective of resolving the dispute.

(c) Resolution by Relationship Liaison Committee

(i) A committee (the "Relationship Liaison Committee") will be formed by the Parties and shall consist of an equal number of representatives appointed by each of the Parties.

(ii) If the Relationship Managers are unable to resolve the dispute within ten Business Days of the receipt of the Dispute Notice, either Relationship Manager may refer the matter to the Relationship Liaison Committee by written notice to the other Relationship Managers. Within five Business Days of the Relationship Liaison Committee's receipt of such referral, the Relationship Liaison Committee shall meet with the objective of resolving the dispute. A representative of each of the Parties shall co-chair each meeting. Minutes of each meeting will be taken.

(iii) The Relationship Liaison Committee will have the discretion to form additional committees or subcommittees for any purpose it deems appropriate, with the ultimate objective of resolving the dispute.

(iv) The Relationship Liaison Committee or any additional committees or subcommittees formed by the Relationship Liaison Committee in relation to the dispute will, at either Party's reasonable request, meet as often as reasonably required with the objective of resolving the dispute. Minutes of all meetings will be taken.

(d) Resolution by Relationship Executive Committee

(i) A committee (the "Relationship Executive Committee") will be formed by the Parties and shall include USFCo's Chief Executive Officer and the USF TELECENTER Service Provider's _____. [*title of appropriate executive officer of winning bidder to be inserted*]

(ii) If the Relationship Liaison Committee is unable to resolve the dispute within fifteen Business Days of the receipt of the Dispute Notice, either Party may refer the matter to the Relationship Executive Committee by written notice to the other Party. Within five Business Days of the Relationship Executive Committee's receipt of such referral, USFCo's Chief Executive Officer will meet with the USF TELECENTER Service Provider's _____ with the object of resolving the dispute. Minutes of the meeting shall be taken.

(iii) If the Relationship Executive Committee is unable to resolve the dispute within fifteen Business Days of the receipt of the Dispute Notice, then either Party may:

(I) refer the dispute to the Appeal Committee in accordance with Section 2; or

(II) commence other legal proceedings in accordance with Section 3.

2. Referral to Appeal Committee

Any dispute that has not been resolved by application of the Disputes Escalation Process described in Section 1 may be referred to the Appeal Committee to be constituted pursuant to Rule 31 of the USF Rules.

3. Other Legal Proceedings

Any dispute that has not been resolved by application of the Disputes Escalation Process described in Section 1, or that is not pending before the Appeal Committee pursuant to Section 2, may become the subject of other legal proceedings commenced by either Party in accordance with applicable law, rules and procedures.

4. Dispute Resolution Costs

The Parties shall be responsible for their own dispute resolution costs, unless the appropriate forum orders otherwise.

5. Exemption from Dispute Resolution Processes

Notwithstanding anything to the contrary in this Agreement:

(a) Neither Party will be required to use the dispute escalation process described in Section 1 for disputes requiring injunctive relief or other urgent relief.

(b) The dispute resolution processes described in this Schedule M apply only to disputes arising under the BOT Agreement. They do not apply to disputes arising under any licence, the Act or any other regulatory matters, which shall be dealt with by PTA in accordance with the Act and applicable PTA regulations and procedures.

(c) Nothing in this Schedule M derogates from PTA's rights or powers under the Act. The provisions of Schedule M are subject to the Act and any rules/regulations made there under. For greater certainty, if and to the extent there are conflicts in the interpretation or application of any of the provisions of this Schedule M with the provisions of the Act or related rules/regulations, the Act and rules/regulations shall prevail.

Annex 7: Dispute Resolution Terms and Processes

(1) USF Co. and Applicant shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with participation in the RFA Process.

(2) Without affecting the right of USF Co to encash the bid bond at any time upon the occurrence of any of the conditions stated therein, neither party to the disagreement or dispute shall commence any appeal or other legal proceedings for at least twenty-eight (28) days after any unresolved disagreement or dispute has been formally notified to the Chief Executive Officer of USF Co. and a similarly senior officer of the Applicant. These senior officers shall engage in further discussions in an effort to resolve the disagreement or dispute within the 28 day period.

(3) If the parties have failed to resolve their disagreement or dispute using the processes described in paragraphs (1) and (2), then either party may give notice to the other party of its intention to take legal action in accordance with the laws of Pakistan.