



REQUEST FOR PROPOSAL (RFP)

FOR

Selection of Agency for conducting Third Party Audit for AP Fiber Grid Phase I Network

Ref. No.APSFL/NAF/501/2021, Dated 21/10/2021

Andhra Pradesh State FiberNet Limited

NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,

Vijayawada - 520013

Web address: www.apsfl.in
Email address: apsfl@ap.gov.in



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Disclaimer

The information contained in this Request for Proposal document ("RFP") or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the APSFL or any of its employees or advisers, is provided to Applicants on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the APSFL to the prospective Applicants or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the preparation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by APSFL. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RFP may not be appropriate for all persons, and it is not possible for APSFL, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Applicants is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. APSFL accepts no responsibility for the accuracy or otherwise for any interpretation of the law.

APSFL, its employees and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

APSFL also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused, arising from reliance of any Applicant upon the statements contained in this RFP. APSFL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

Issuance of this RFP does not imply that the APSFL is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the RFP, APSFL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations which may be required by the APSFL or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and APSFL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the selection process



Acronyms

APSFL	Andhra Pradesh State FiberNet Limited
TPA	Third Party Audit
APTS	Andhra Pradesh Technology Services Limited
CPE	Customer Premise Equipment
BG	Bank Guarantee
DD	Demand Draft
EMD	Earnest Money Deposit
GPON	Gigabit-capable Passive Optical Networks
GST	Goods and Services Tax
INR	Indian National Rupee
IPTV	Internet Protocol Television
ISP	Internet Service Provider
LCO	Local Cable Operator
LD	Liquidated Damages
LLP	Limited Liability Partnership
LoA	Letter of Acceptance
MSO	Multiple System Operator
MTTR	Mean Time To Repair/Replace
NOC	Network Operations Centre
OEM	Original Equipment Manufacturer
PBG	Performance Bank Guarantee
PoC	Proof of Concept
PoP	Point of Presence
PSU	Public Sector Unit
SD	Security Deposit
SLA	Service Level Agreement
SOP	Standard Operating Procedure
SPOC	Single Point of Contact
USB	Universal Serial Bus
VAT	Value Added Tax



Definitions

- "Agreement" means the Agreement to be signed between the successful bidder and APSFL including all attachments, appendices, all documents incorporated by reference thereto together with any subsequent modifications, the RFP, the bid offer, the acceptance and all related correspondences, clarifications, presentations.
- "Authority" refers to MD/Directors of APSFL or its nominated representatives
- "Authorized Representative" shall mean any person authorized by either of the parties.
- "Bidder" means any firm or group of firms (called consortium) represented by the Lead Bidderoffering the solution(s), service(s) and /or materials as required in the RFP. The word Bidder/ System Integrator/ Applicant when used in the pre-award period shall be synonymous with parties bidding for this RFP, and when used after award of the Contract shall mean the successful party with whom APSFL signs the agreement for rendering of services for implementation of this project.
- "Contract" is used synonymously with Agreement.
- "Law" shall mean any Act, notification, bye law, rules and regulations, directive, ordinance, order or instruction having the force of law enacted or issued by the Central Government and/ or Andhra Pradesh or regulatory authority or political subdivision of government agency.
- "LoA" means Letter of Acceptance, which shall constitute the intention of the department to place the Purchase Order with the successful bidder.
- "Party" means APSFL or Bidder, individually and "Parties" mean APSFL and Bidder, collectively.
- "Proposal / Bid" means the Pre-Qualification and Technical Proposals submitted along with the subsequent clarifications and undertakings, if any;
- "Request for Proposal (RFP)" means this document and its annexure etc., seeking a set of solution(s), services(s), materials and/or any combination of them.
- "Requirements" shall mean and include schedules, details, description, statement of technical data, performance characteristics and standards (Indian & International) as specified in RFP.
- "Service Level(s)" means the performance standards, which shall apply, to the solution design, implementation & services delivered by the Empanelled Agency.



1.1 Inviting Authority

Andhra Pradesh State FiberNet Limited (APSFL) invites sealed bids from the prospective bidders for selection of agency for conducting the audit for the Network. The bidders shall propose all the components as per the technical specifications mentioned in this RFP and selected bidder(s) should support APSFL in providing reliable service delivery. Selected bidder(s) should conduct the audit for the Passive Network Infrastructure for AP Fiber Grid Phase I Project.

1.2 Key Events and Dates

S.No.	Description	Details				
1.	Name of the Authority	Andhra Pradesh State FiberNet Limited				
2.	Name of the Assignment	Selection of Agency for conducting Third Party Audit for AP				
2.	Name of the Assignment	Fiber Grid Phase I Network				
3.	RFP Number	Ref. No. APSFL/NAF/501/2021, Dated 21/10/2021				
4.	RFP Publishing Date	21/10/2021				
5.	Last date & time for receiving queries/clarifications	25/10/2021at 5:00 PM				
	Last date and time for	05/11/2021 at 3:00 PM				
6.	submission of proposal	The proposal is to be submitted on www.apeprocurement.gov.in				
	(Proposal Due Date)	on e-procurement portal.				
		05/11/2021at 4:00 PM				
	Date, time and location of	Andhra Pradesh State Fibernet Limited				
7.	opening of pre-qualification cum	NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,				
/ .	technical bids on e-procurement	NH -65, Vijayawada - 520013				
	platform	Web address: www.apsfl.in				
		Email address: apsfl@ap.gov.in				
8.	Date and time of opening of financial bid	Shall intimate technically qualified agencies at a later date				
		INR 25,000/- (Rupees Twenty-Five Thousand Only) in the				
		form of Demand Draft issued by one of the Nationalized /				
	Bid Processing Fee	Scheduled Banks in India drawn in favour of Andhra Pradesh				
9.	(Non-refundable)	State FiberNet Ltd', payable at Vijayawada.				
		Original DD must be submitted in APSFL office at Vijayawada				
		before proposal due date.				
		INR 1,50,000 (Rupees Lakh Fifty Thousand only) shall be				
10.	Bid Security / EMD	paid online on e-procurement Platform				
10.	(Refundable)					
		3% of the Contract Value in the form of Bank Guarantee				
		issued by one of the Nationalized / Scheduled Commercial				
11.	Performance Bank Guarantee	Banks in India drawn in favour of Andhra Pradesh State				
1	Torronnance Bank Guarantee	FiberNet Ltd, payable at Vijayawada.				
		 Should be valid for contract period + additional 3 months 				
		 EMD of the successful bidder will be considered towards 				



		PBG and validity should be extended as per the contract duration.
12.	For any enquiries and clarifications, please contact:	Andhra Pradesh State FiberNet Limited NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station, Vijayawada - 520013 Web address: www.apsfl.in Email: apsfl@ap.gov.in
13.	Validity of the Proposal	Bid proposals shall remain valid for a period of 180 days from the Proposal due date.
14.	Method of Selection	Selection of Agency on least cost method (L1) & Reverse Auction

1.3 Procedure for Bid Submission

The Bidder shall submit their response through Bid submission process on e-Procurement platform at www.apeprocurement.gov.in by following the procedure given below:

The bidder would be required to register on the e-procurement platform www.apeprocurement.gov.in or https://tender.apeprocurement.gov.in and submit their bids online. Offline bids shall not be entertained by the RFP Inviting Authority for the RFPs published in e-Procurement platform.

The bidders shall submit their Pre-Qualification cum Technical bid and Price bid online in e-Procurement web site. The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their Pre-Qualification cum Technical bids and other certificates/documents with clear readability, in the e-Procurement web site. The bidder should sign along with company stamp (Lead bidder in case of Consortium) on all the statements, documents, certificates uploaded in the e-Procurement website, owning responsibility for their correctness/authenticity.

1.4 Registration with e-Procurement platform

For registration and online bid submission bidders may contact Helpdesk on www.apeprocurement.gov.in or https://tender.apeprocurement.gov.in

1.5 Digital Certificate Authentication

The bidder shall authenticate the bid with the agency's Digital Certificate for submitting the bid electronically on e-Procurement platform and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-Procurement platform.

For obtaining Digital Certificate, you may please contact:

Andhra Pradesh Technology Services Limited, Vijayawada www.apts.gov.in/(OR)

You may please contact any Registration Authorities of Certifying Authorities in India. The list of CAs is available in the link https://tender.apeprocurement.gov.in/DigitalCertificate/signature.html



1.6 Hard Copies

All bidders should submit the Original DD towards the bid processing fee at APSFL office, Vijayawada before proposal due date. All the bidders shall invariably upload the scanned copies of DD in e-Procurement system and this will be the primary requirement to consider the bid responsive.

- i. APSFL shall carry out the evaluation solely based on the uploaded certificates/documents, BG towards EMD in the e-Procurement system and open the price bids of the responsive bidders only.
- ii. APSFL will notify the bidders for submission of original hardcopies of the uploaded documents if required.
- iii. APSFL will not take any responsibility for any delay in receipt/non-receipt of original DD/BG towards Document Fee/ EMD before the stipulated time.

On receipt of documents, APSFL shall ensure the genuineness of the DD towards document fee, BG towards EMD and all other certificates/documents uploaded by the bidder in e-Procurement system in support of the qualification criteria before concluding the agreement.

S.No	Details for EMD					
1	Name of Beneficiary	Andhra Pradesh State Fibernet Ltd				
2	Name of Bank Andhra Bank					
	Bank Address	Andhra Bank, MainBranch,				
		RR Appa Rao street, Vijayawada,				
		Andhra Pradesh				
3	Bank Account No	060611100003794				
4	IFSC CODE	ANDB0000606				
5	MICR CODE	520011025				
6	BRANCH CODE	000606				

1.7 Deactivation of Bidders

Vide Ref GO Ms. No.174 – I&CAD dated 1-9-2008, if any successful bidder fails to submit the original hard copies of uploaded certificates/documents, BG towards EMD within stipulated time or if any variation is noticed between the uploaded documents and the hardcopies submitted by the bidder, the successful bidder will be suspended from participating in the RFPs on e-Procurement platform for a period of 3 years. The e-Procurement system would deactivate the user ID of such defaulting bidder based on the trigger/recommendation by the RFP Inviting Authority in the system. Besides this, APSFL shall invoke all processes of law including criminal prosecution of such defaulting bidder as an act of extreme deterrence to avoid delays in the RFP process for execution of the development schemes taken up by the government. Other conditions as per RFP document are applicable.

The bidder is requested to get a confirmed acknowledgement from the RFP Inviting Authority a proof of Hardcopies submission to avoid any discrepancy.



a) Payment of Transaction Fee:

It is mandatory for all the participant bidders from 1st January 2006 to electronically pay a prescribed non-refundable Transaction fee to M/s.APTS, the service provider through "Payment Gateway Service on E-Procurement platform". The Electronic Payment Gateway accepts all Master and Visa Credit Cards issued by any bank and Direct Debit facility/Net Banking to facilitate the transaction. This is in compliance as per G.O.Ms. 13 dated 07.05.2006.

b) Corpus Fund:

As per GO MS No.4, user departments shall collect 0.04% of ECV (estimated project cost) with a cap of Rs. 10,000 (Rupees ten thousand only) for all works with ECV up to Rs.50 Crores, and Rs. 25,000/- (Rupees twenty five thousand only) for works with ECV above Rs.50 Crores, from successful bidders on e-Procurement platform before entering into agreement / issue of purchase orders, towards e-procurement fund in favour of Managing Director, APTS. There shall not be any charge towards e-Procurement fund in case of works, goods and services with ECV less than and upto Rs. 10 lakhs

c) **RFP Document:**

The bidder is requested to download the RFP document and read all the terms and conditions mentioned in the RFP Document and seek clarification if any from the RFP Inviting Authority. Any offline bid submission clause in the RFP document could be neglected.

The bidder has to keep track of any changes by viewing the Addendum/Corrigenda issued by the RFP Inviting Authority from time-to-time in the e-Procurement platform. The Department calling for RFPs shall not be responsible for any claims/issues arising out of this.

d) Bid Submission Acknowledgement:

The bidder shall complete all the processes and steps required for Bid submission. The system will generate an acknowledgement with a unique bid submission number after completing all the prescribed steps and processes by the bidder. Users may also note that the bids for which an acknowledgement is not generated by the e-procurement system are treated as invalid or not saved in the system. Such invalid bids are not made available to the RFP Inviting Authority for processing the bids. The Government of AP is not responsible for incomplete bid submission by users.

- The bidders need to register on the electronic procurement market place of Government of Andhra Pradesh i.e., www.eprocurement.gov.in. On registration in the e-procurement market place they will be provided with a user ID and password by the system using which they can submit their bids on line.
- While registering on the e-procurement market place, the bidders need to scan and upload the required documents as per the RFP requirements on to their profile. The e-procurement market place provides an online self-service registration facility to all such Contractors who are already registered with respective participating departments for supply of specified goods and services.
- All the bidders shall invariably upload the scanned copies of DD/BG in e-Procurement system and this will be the primary requirement to consider the bid as responsive. The Department shall carry out the



technical bid evaluation solely based on the uploaded certificates/documents, BG towards EMD in the e-procurement system and open the price bids of the eligible and responsive bidders.

• The bidders shall furnish a declaration in online stating that the soft copies uploaded by them are genuine. Any incorrectness/deviation noticed will be viewed seriously and apart from cancelling the work duly forfeiting the EMD, criminal action will be initiated including suspension of business.

1. Introduction

Andhra Pradesh State FiberNet Limited (APSFL) has been incorporated under the Companies Act 2013 in October 2015, to undertake the works of AP Fiber Grid, its operations & maintenance and related business activities. It is a fully owned entity of the Government of AP under the control of Energy, Infrastructure & Investment (E, I&I) department. APSFL aims to provide high quality & affordable digital services to households, government departments and enterprises across the State.

Fiber Grid is one of the 5 Grids identified by the Government of Andhra Pradesh to accelerate socioeconomic growth of the State. Fiber Grid is primarily aimed at harnessing the power of information resource and enabling provision of qualitative and cost-effective IT, Communication (data, voice & video) and other related services to the citizens of A.P.

Vision of AP Fiber Grid is as follows:

"To establish a highly scalable network infrastructure, accessible on a non-discriminatory basis, to provide on demand, affordable and end-to-end broadband connectivity of 15 Mbps for all households and 100 mbps to 1 Gbpsor more for institutions &multi-dwelling units by 2018, to enable realization of the Vision of Digital Andhra Pradesh, in partnership with the Government of India and Private Sector." In line with the vision, a dual phased approach has been undertaken to deliver the project mandate in AP.

Phase I – Aerial Fiber Grid Network will create an aerial fiber network up-to Mandal level by leveraging assets of Electricity companies.

Phase II - Aerial Fiber network covering the entire State upto Gram Panchayats level.

Phase I of the Project (Aerial Fiber grid project), APSFL has established state-wide high speed optical fiber network infrastructure covering approximately 23,000 kms route across the 13 districts of Andhra Pradesh through 2449 PoPs being operated and controlled from Network Operations Centre (NOC) setup in Vishakhapatnam. Phase I project components include laying aerial optical Fiber across the State upto mandal level, so that the State, District, Zonal and Mandal's are connected with each other using ring topology as much as possible. In addition, the last mile connectivity is to be made available through a network of MSOs/LCOs.

APSFL has already procured the required CPE (customer premise equipment) boxes in order to deliver the Triple Play Services viz., IPTV, high-speed Broadband and Telecom. Online enrolment of MSOs/LCOs for business association with APSFL have been done and has already extended Triple Play Services to thousands of customers through the CPE boxes procured.

The entire Network has been established in the year of 2015-16. APSFL intends to conduct the audit for the passive infrastructure across 13 Districts to evaluate the total cost to be incurred for replacing the derogated or substandard elements.



2. Scope of Work

APSFL needs to conduct an audit to understand the health of its Passive infrastructure established as part of APSFL Phase I. Subsequently, APSFL needs to evaluate the total cost to be incurred for replacing the derogated or substandard elements, if any, as identified in the Audit. To achieve the abovementioned desired result, APSFL intends to hire an external audit agency

To verify the health condition of 24,000 KM of 24 core Aerial Optical Fiber Cable (OFC) network and its accessories laid in 13 Districts (STATE, ZONAL, MANDAL and SS/GP, EBG link wise) by deploying individual teams in every district within specified timelines as prescribed by APSFL.

District Name	24F core Cable Length in KMs	Length of ADSS Fibre Cable laid From POP to POP	ADSS Fibre Cable Length test reports available for	No of Sections
ANANTHAPUR	2672	2645.771	2647.971	230
CHITTOOR	2768	2417.2279	2411.264	312
East Godavari	1459	1316.703	1364.102	133
GUNTUR	1882	1751.027	1751.027	203
KADAPA	2233	2023.6783	2051.8	224
KRISHNA	1820	1162.873	1164.535	190
KURNOOL	2208	2192.699	2192.699	195
NELLORE	1950	1761.3751	1761.0971	211
PRAKASAM	2218	1904.16	1904.165	214
SRIKAKULAM	904	808.06	807.974	83
Visakhapatnam	1325	1325.000	1328.000	135
VIZIANAGARAM	850	804.263	802.579	76
WEST GODAVARI	1691	1588.718	1587.858	194
Grand Total in KMs	23980	21701.555	21775.071	2400

i. Key Broad areas are as identified below:

- Survey & Documentation by Capturing lat/long through GIS based inventory management tool for each District//Zonal/Mandal/GP as per Survey Guidelines.
- GIS based inventory management tool will be provided by APSFL
- Capturing existing aerial Cable Span, Pole Type, other ground conditions and update in GIS.
- Preparation of As-Build drawings and GIS based inventory management of the OFC roll out.
- Verification of EB Pole accessories used for each link/route.
- Verification and testing of OFC and its accessories like; Splice/Branch Joint Closures, FDMS/LIU
 Etc.



- Identification of Critical/Damaged sections and preparing action plan for re-routing, restoration/replacement along with better feasibility proposals.
- Testing of both Live and Spare fiber health condition Including ring/spur verification of each route/link of individual fiber with OTDR, LS-PM as per APSFL Spec for all 24 cores of the ADSS OFC deployed.
- Process and resources audit in every district including their FRT tools, Vehicle, Machinery, Infrastructure, Systems, Resources Etc.
- Identification of Network Convergence methods like Fast Reroute and Bidirectional failure detection along with suggested paths for deploying RFMS (Remote Fiber Monitoring System), OLP (Optical Line Protection) in different layers.

ii. Features of the Fiber Asset / Inventory Management System being provided

- Secured Web Based GIS enable application compatible with digital maps consisting of road map, high resolution satellite maps, terrain map, traffic map etc.
- It shall have capability of maintaining the Inventory of both Physical and Logical resources of the Network.
- System will have the capability to define entity (POP, Customer, ODF, Fiber, Chamber, Splice-Closure etc.) for certain activities (addition, modification & deletion) to specific user.
- System will have capability to locate entity using search option & using Latitude/Longitude.
- The System will have the capability to upload geo-tagging images/file as an attachment against a network element.
- System will have functionality to add/modify different losses against link budget calculation.
- Logical Inventory include logical attributes such as Interface configuration details, status, Routing Protocol details etc
- System will be capable to create ports with multi technology in card available in different slots of an Equipment.
- System will be capable to record the desired loops at different floor inside building. It has provision of adding all the cable loop length.
- The System will be capable to visualize the hierarchy of ISP network like building, floor, room, rack, equipment, slot, card, port etc.
- Application will provide reverse tracing capability from GP till exchange.
- System will have capability to perform manual splicing between cables, cable & ODF and viceversa.
- System will have Capability to find out end to end connected/spliced path against port/core of



ODF and Cable respectively.

- Capability to keep History of all changes done on respective entity
- Capability to import and export inventory details on demand
- Capability to show completely spliced path from source to destination over the map
- Capability to generate multiple kind of pre-configured reports and ad-hoc reports
- Identification of parameters between two or successive Network entity /nodes can be traced.
- Hierarchy wise access rights and controls to manage database updates and changes by authorized users.
- Inventory management system shall generate unique code for each asset

iii. Scope of work for manpower deployed at NOC

- a. Work order Management
- b. Planning and Execution
- c. Database Management
- d. Material Management
- e. Deviation approval and signoff
- f. Ensure Upload the report in System
- g. DPR report flash
- h. Weekly Work completion report signoff
- i. Out of Scope Work Approval
- j. Invoicing
- k. Work done vs Payment milestones.

iv. Scope of work at manpower deployment in field level at 13 Districts of AP

- Collection of Lat Long at each site
- Verification and validation of FDMS Count deployed in PoPs
- Type of Used Equipment, patch cords connected to FDMS
- Collecting OTDR Traces for all terminated fibers in both soft and hard formats
- LS-PM between POP's as per the provided documents.
- Identification of Fiber Cable Type Details
- Collecting photos of all equipment and accessories deployed in POP.
- Collection of Pole types, Lat-Longs, pole accessories details etc.,



- Distance between electricity poles along with Lat-Longs
- In-between Joint Closure counts and details
- Validation of installation of accessories over pole
- Collecting of photos of all accessories deployed in field.

v. Inspection and Testing

Fiber Optic cable link testing: Following types of tests, but not limited to are expected.

- a. Fiber continuity and link attenuation (Bi-directional) between FODP connectors at two ends for each fiber at 1310 and 1550nm by OTDR.
- b. Fiber continuity and link attenuation (Bi-directional) between FODP connectors at two ends for each fiber at 1310 and 1550nm by power meter & Laser source.
- c. Average fiber attenuation and average splice loss including FODP
- d. Proper termination and labelling and average splice loss in the link including FODP
- e. Data loss test and ensuring that the same is within the acceptable limits.
- f. Material condition & count for Pole accessories
- g. Material condition status for FDMS, joint enclosures, racks, UPS, batteries and other infra details etc.,

1. Testing and reporting formats shall be designed in collaboration with the Audit Agency at the time of inception

- 2. Minimum acceptance criteria for each of the equipment shall be defined by APSFL in collaboration with the audit agency at the time of inception
- 3. APSFL shall provide the required GIS software and share the route maps and details of the locations with the audit team. For initial estimation, it is to be noted that APSFL passive infrastructure is established across 13 districts of the state covering 600+ mandals and 2600+ substations.
- 4. All tools, hardware, software, licenses, manpower etc. (except licensed GIS Software) required for conducting the audit and reporting the same, shall be borne by the Audit Agency.

Project/ Process Metrics



• Project Definition – Following are the criteria of defining Project:

Basic link details:

Link Details			A End Node Details			B End Node Details				
S1 District	Ring Type	Link Name	Location of Node A	Node A Lat/Long	Node A Type/ make	NODE A IP	Location of Node B	Node B Lat/Long	Node B Type/ Make	NODE B IP

ADSS Optical Fiber Cable Details to be captured:

Actual Fiber Scope (KM)									
OFC Total Distance (KM) OFC (FDMS/Patch Chords (KM)) OFC (KM) OFC (KM) OFC (KM) OFC (KM)									

Mal	ke	APSFL	Any	Length of	Any core	LIVE	Through	Break	Present	Damaged
of		Own	other	Cable	mismatches	Fiber	fibers	fiber	Cable	Cable In
cab	le	laid	core	mismatched	in this link	Count	Count	count	Condition	KM
		Fiber	cable							
		in KM	used							
			in							
			link							

Fiber Termination points/ Accessories:

FDMS/LIU Description at both ends									
"A" End (FDMS or LIU) Available or Not	Type of Connector/Patch Chord	Spare Connector Available or Not	"B" End (FDMS or LIU) Available or Not	Type of Connector/Patch Chord	Spare Connector Available or Not				

OFC Splicing details:



Splicing/Joint Closures Description (No of Splice/Loop/Branch) Available in Each link								
No Of Total Joint Closures In the link	No Of Branch Joint Closures in the link	No of Joint Closures to be replaced in the link	No of T-Boxes or Substandard JC used In this link	Required Accessories in this Link	Is spare fiber need to Splice			

OFC Cable/ EB Pole Accessories

No of	No of	No of	No of	No of	No of	No of	No of	No of	Protecti	Terminati
Tensio	Wedg	Suspensi	Suspensi	Cable	Cable	JC with	JC	poles	ve Helix	ng Helix
n	e	on Lock	on	Clam	Clamp	Protecti	without	without	used in	used in
Clamp	Lock	Used in	Rubbers	ps in	S	on	Protecti	Accessori	this link	this link
used	Used	Link	in Link	Link	Rubbe	clamp	on clap	es		
in	in				rs in					
Link	Link				Link					

Identify the High Span lengths VS EB Pole lengths along withaccessories list.

span 0-65 Meters in the Link		65-80 ers in the	Span 80 Meters the Lin	in	Span 100- 120 Meter in the Lin	rs	150	n120- Meters ne Link	Span > Meters Link		Long Distar the Li	ice in
High Span Strech_1_Fr om Lat/Long	High Span Strech 1 To Lat/Lo	High Span Strech 2 From Lat/Lo	High Span Strech 2 To Lat/Lo	High Span Strech 3 From Lat/Lo		4 F	_	High Span Strech 4 To Lat/Lo	High Span Strech 5 From Lat/Lo	High Span Strech 5 From Lat/Lo	Tota 1 No of EB Pole s in Lin k	EB Line Catego ry

Identify the field conditions.

Link fallen in	Link fallen in	Link fallen in	Link followed	No.of river	No.of railway
paddy field in	forest area in	hill /agency	road side in	crossing in	crossing in
km	km	area in km	km	this link	this link



S.No.	Equipment Type and Characteristics	Minimum required Nos.
i)	OTDR	13
ii)	Optical Loss Test Set	26
iii)	Optical Fiber Splicing Machine (Fusion)	13
iv)	Optical Power Meters	26
v)	OFC Splicing Kits	13
vi)	Transportation Vehicles	13

Safety:

1.1 The Contractor shall be responsible for the safety of all activities on the Site.

2 TIME FOR COMPLETION

Time lines including

- 1) Resources allocation vs Approach Plan
- 2) Understanding the Methodology of auditing and providing training to field teams.
- 3) Meeting the mile stones of Project timelines vs project action plan Etc.
 - 1.2 The scheduled time period for completion of the works is "**Three (3)**" **months** from the date of entering into agreement with the Contractor. Keeping in view the implementation plan & timelines, the work should be programmed so as to achieve the milestones as mentioned therein.
 - 1.3 After signing the agreement, the Contractor shall submit a detailed work plan, implementation schedules to complete the works within 3 months from the date of signing of the agreement. The Contractor shall forthwith begin the work after signing agreement and shall regularly and continuously proceed with them.

Work program for achieving the milestones as per implementation plan & timelines is given below

S.No.	Project Deliverable/Milestone	Timelines (D + n) in Calendar Weeks
1	Team Mobilization & Providing necessary trainings.	D+ 1
2	Readiness of GIS based inventory tool and in line with its supporting applications like servers, GIS tools, user interface Etc.	D+ 2
3	Field Resource Mobilization & Sample Audits	D+ 3
4	Commissioning in the 'first'2 identified Districts (at least 95% PoPs) and providing Inception Report.	D+ 4



5	Commissioning in additional 5 identified Districts (at least 95% PoPs)	D+ 6
6	Commissioning in the remaining 6 Districts (atleast 95% PoPs)	D+ 8
7	Commissioning of all balance PoPs in the State	D+ 10
8	Completion of any left-overworks and Project Inception Report	D+ 12

D– Date of Agreement

- 1.4 The Contractor shall commence the works on site within the period specified under paras 1.1 to 1.2 above after receipt by him a written order to this effect from the Authority and shall proceed with the same without delay, except as may be expressly sanctioned or ordered by the Authority, or be wholly beyond the Contractor's control.
- 1.5 The Contractor shall bear all costs and charges for special or temporary way leases required by him in connection with access to the site. The Contractor shall also provide at his own cost any additional accommodation outside the site required by him for the purposes of the work.

3 Payment Terms

S.No.	Project Deliverable/Milestone	Payments will be released on the following basis
1	Team Mobilization & Providing necessary trainings.	3% of the Total Contract
2	Readiness of GIS based inventory tool and in line with its supporting applications like servers, GIS tools, user interface Etc.	3% of the Total Contract
3	Field Resource Mobilization & Sample Audits	4% of the Total Contract
4	Commissioning in the 'first'2 identified Districts (at least 95% PoPs) and providing Inception Report.	10% of the Total Contract
5	Commissioning in additional 5 identified Districts (at least 95% PoPs)	20% of the Total Contract
6	Commissioning in the remaining 6 Districts (atleast 95% PoPs)	20% of the Total Contract
7	Commissioning of all balance PoPs in the State	15% of the Total Contract
8	Completion of any left-overworks and Project Inception Report	25% of the Total Contract

Note:

a. All payments shall be released after certification of delivery, installation and acceptance testas per the Deliverables listed in this RFP, by APSFL or its Nominated



- Representative / Authority.
- b. All payments shall be made in Indian rupees only(INR).
- c. Payment shall be released against the invoices raised by supplier on providing all relevant documents timely, including reports duly signed and approved by APSFL / APSFL authorized agency / or its nominated representative and are complete in all respect and subsequent approval.
- d. Payment shall be subject to deductions of any amount for which the supplier is liable under the RFP conditions. Further, all payments shall be made subject to deduction of applicable taxes and other Government levies like TDS (Tax Deduction at Source) and etc., as per the current Income-Tax Act.
- e. All payments shall be released only after deducting the all-SLA Penalties as applicable.

4 Deliverables

The Payment shall be released only after the submission of the following Deliverables and on submission of original invoice, and certification from Authority as mentioned below.

S.No.	Project Deliverable/Milestone	Documents to be Submitted for release of payment
1	Team Mobilization & Providing necessary trainings.	Documents pertaining to No of Teams Deployed
2	Readiness of GIS based inventory tool and in line with its supporting applications like servers, GIS tools, user interface Etc.	Document pertaining to User id verification and validation of the GIS tool including test samples
3	Field Resource Mobilization & Sample Audits	Documents pertaining to audit of 10% of the total scope of work
4	Commissioning in the 'first'2 identified Districts (at least 95% PoPs) and providing Inception Report.	Test & Certifications and as defined in the RfP
5	Commissioning in additional 5 identified Districts (at least 95% PoPs)	Test & Certifications and as defined in the RfP
6	Commissioning in the remaining 6 Districts (atleast 95% PoPs)	Test & Certifications and as defined in the RfP
7	Commissioning of all balance PoPs in the State	Test & Certifications and as defined in the RfP
8	Completion of any left-overworks and Project Inception Report	Work Completion from the Competent Authority of APSFL

5 Penalty

The following penalties shall be imposed on the supplier if the supplier does not adhere to the timelines as mentioned in the RFP.



S.No.	Project Deliverable/Milestone	Penalty
1	Delay in Team Mobilization & Providing necessary trainings.	10% of the Project Milestone
2	Delay in Readiness of GIS based inventory tool and in line with its supporting applications like servers, GIS tools, user interface Etc.	10% of the Project Milestone
3	Delay in Field Resource Mobilization & Sample Audits	10% of the Project Milestone
4	Delay in Commissioning in the 'first'2 identified Districts (at least 95% PoPs) and providing Inception Report.	10% of the Project Milestone
5	Delay in Commissioning in additional 5 identified Districts (at least 95% PoPs)	10% of the Project Milestone
6	Delay in Commissioning in the remaining 6 Districts (atleast 95% PoPs)	10% of the Project Milestone
7	Delay in Commissioning of all balance PoPs in the State	10% of the Project Milestone
8	Delay in Completion of any left-overworks and Project Inception Report	10% of the Project Milestone

Note:

APSFL shall levy penalties at 10% of each milestone amount as tabulated in Payment terms of the RfP of undelivered output as per M1 – M8 for delay beyond the milestone timelines:

6 Conditions for No Penalties

Penalties shall not be levied on the Bidder in the following cases:

- a. There is a force majeure event effecting the SLA, which is beyond the control of the successful bidder. Force Majeure events shall be considered in line with the clause duly mentioned in the RFP
- b. The non-compliance to the SLA has been due to reasons beyond the control of the successful bidder

7 Delays and extension of time:

If at any time during the performance of the contract, the Contractor encounters condition impending timely performance of service, the Contractor shall forthwith notify to the Authority in writing the fact of 23 | P a g e



the delay, it's likely duration and its cause(s). Upon receipt of such notification, reasonable extension of time may be allowed by the Authority or by the officer competent at its discretion to sanction the extension, for unavoidable delays, such as may result from causes, which in the opinion of the Authority and are undoubtedly beyond the control of the contractor. Extension will not be given except in exceptional circumstances.

Whenever authorized alterations or additions made during the progress of the work are of such a nature in the opinion of the Authority as to justify an extension of time in consequence thereof, such extension will be granted in writing by the Authority when ordering such alterations or additions.

1. Implementation Program:

- 1.1 The Contractor shall furnish immediately after signing the agreement a program showing the sequence in which he proposed to carry out the work, daily progress expected to be achieved, also indicating date of Implementation, Testing and Commissioning. The schedule should be such that it is practicable to achieve completion of the whole work within the time limit fixed and in keeping with the milestone program specified in TIME LINE above and shall obtain the approval of the Authority. Further rate of the progress as in the program shall be kept up to date. In case it is subsequently found necessary to alter this program, the Contractor shall submit sufficiently in advance the revised program incorporating necessary modifications and get the same approved by the Authority. No revised program shall be operative without approval of the Authority.
- 1.2 The Authority shall have all times the right, without any way violating this contract, or forming grounds for any claim, to alter the order of progress of the works or any part thereof and the Contractor shall after receive such directions proceed in the order directed. The Contractor shall also report the progress to the Authority within 7 days of the Authority's direction to alter the order of progress of works.
- 1.3 The Contractor shall give written notice to the Authority whenever planning or progress of the works is likely to be delayed or disrupted unless any further drawings or order including a direction, instruction or approval is issued by the Authority within a reasonable time. The notice shall include details of the drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

2. Speed of Work:

- 2.1 The Contractor shall at all times maintain the progress of work to conform to the latest operative progress schedule approved by the Authority. The contractor should furnish progress report indicating the program and progress once in a fortnight indicating the stage reached in the design, all variances from the agreed schedule are to be promptly reported. The Authority may at any time in writing direct the contractor to slow down any part or whole of the work for any reason (which shall not be questioned) whatsoever, and the contractor shall comply with such orders of the Authority. The compliance of such orders shall not entitle the contractor to any claim of compensation. Such orders of the Authority for slowing down the work will however be duly taken into account while granting extension of time if asked by the contractor for which no extra payment will be entertained.
- 2.2 Delays in Commencement or progress or neglect of work shall lead to forfeiture of earnest money, Security deposit and withholding of amounts:



2.3 If, at any time, the Authority is of the opinion that the Contractor is delaying Commencement of the work or violating any of the provisions of the contractor is neglecting or delaying the progress of the work as defined by the tabular statement, he shall so advise the Contractor in writing and at the same time demand compliance in accordance with conditions of Tender notice. If the Contractor neglects to comply with such demand within seven days after receipt of such notice, it shall then or at any time thereafter, be lawful for the Authority without prejudice to other remedies available under the contract take suitable action in accordance with conditions of contract including forfeiture of security deposit, imposition of liquidated damages and/or terminate the contract in full or in part.

3. Suspension of works by the Contractor

- 3.1 If the Contractor suspends the works, without sanction of the Authority or in the opinion of the Authority neglect or fail to proceed with due diligence in the performance of his part of the Contract as laid down in the Schedule rate of progress, or if he continues to default or repeat such default, the Authority shall take appropriate penal action.
- 3.2 If the Contractor stops work for 07days and the Stoppage has not been authorized by the Authority may at its option terminate the Contract.
- 3.3 If the Contractor has delayed the completion of works the Authority may take such recourse as available under the contract.

4. Extension of the Intended Completion Date

- 4.1 The Authority may extend the Intended Completion Date if a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date.
- 4.2 The Authority shall decide whether and by how much to extend the Intended Completion Date within 21days of the Contractor asking the Authority concerned for a decision upon the effect of a Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

5. Delays Ordered

5.1 The Authority may instruct the Contractor to delay the start or progress of any activity within the Work.

6. Early Warning:

- 6.1 The Contractor is to warn the Authority at the earliest opportunity of specific likely future events or circumstances that may adversely affect the Execution of Works.
- 6.2 The Contractor shall cooperate with the Authority in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Authority.

7. Management Meetings:



7.1 The Authority may require the Contractor to attend management meetings from time-to-time. The business of a management meeting shall be to review the progress and installation related issues of the project and programme for remaining work and to deal with matters raised in accordance with the early warning procedure. Additionally, the Contractor shall also be required to attend any other meetings from time to time as advised by the Authority.

8. Guidelines for Quality, Inspection & Testing

A. Quality Control

- 1. It is imperative that the TPA / contractor is/are fully conversant with the general practices and shall be fully equipped to carry out the work in accordance with the Specifications. The TPA is expected and bound to ensure quality of works in accordance with Specifications laid down. The TPA shall engage adequate and experienced supervisors to ensure that work has been carried out as per Specifications and with due diligence and in a professional manner.
- 2. In addition to Acceptance Testing being carried out by TPA, all works at all times shall be open to inspection by the Authority. The TPA shall be bound, if called upon to do so, to offer the works for inspection without any extra payment. The presence of monitoring teams nominated by the Authority during construction shall not preclude separate acceptance testing teams to recheck adherence to all aspects as mentioned in the contract.
- 3. Based on condition, TPA will need to create its own site wise QA, quantity verification and testing plan.
- 4. TPA plans should indicate scheduled start and end date for each site.
- 5. The TPA shall communicate their plan to the Authority as per the respective sites under TPA. Any changes in the plan also have to be communicated to the Authority by TPA.
- 6. TPA will be responsible for checking whether the materials being supplied by Implementing Agency are of such quality standards as mentioned in the Engineering Instructions and Construction Specifications.
- 7. TPA will be responsible to witness and verify the OTDR testing performed by Contractor to ascertain the length of optical fiber used. Key parameters OTDR testing report should include are
 - a. Date (entered manually)
 - b. Location (entered manually)
 - c. Length of fiber (automatically generated)
 - d. No. of joints (automatically generated)
 - e. Average Loss (dB/Km) (automatically generated)

B. Inspection and Testing

1. The complete AP Fiber Grid Phase I Network shall be inspected and tested. The TPA shall furnish all manpower and materials for tests, including testing facilities, power and instrumentation. The costs shall be borne by the TPA and shall be deemed to be included in the contract price.



- 2. The entire cost of testing for factory & site acceptance, routine tests, production tests and other test shall be treated as included in the quoted unit price of materials, except for the expenses of the Authority representative.
- 3. Should any inspections or tests indicate that specific item does not meet Specification requirements; the appropriate tests shall be re-conducted, upgraded, or added by the TPA. After correction of a deficiency, all necessary retests shall be performed to verify the effectiveness of the corrective action.

C. Testing Methodology

1. Acceptance Tests

- a. TPA would be responsible to oversee the complete APSFL Network to ensure quality of work as well as quantity verification. All records and testing output conducted by Contractor has to be verified by TPA. TPA will have the responsibility of Quality Review of the work done by Contractor for all 100% sites. GIS co-ordinates of the entire OFC route at an interval of every 500 meters (including Equipment Site, Jointing / Splicing) shall be captured by Contractor and will be updated in the GIS tool deployed by the contractor for this project. This GIS tool need to be bought in the name of the Authority and will belong to Authority.
- b. The TPA shall be responsible to provide test/ measurement tools and testers for conducting various tests. It will be ensured by the APSFL SPOC that there is no compromise on the network attributes with specific reference to connectivity to District, Mandal and Substations.
- c. Scope of Acceptance Testing

It is essential to verify the integrity and the capability of the Network and its readiness for intended services as per formats given in test procedure. The purpose of acceptance and testing is to verify integrity of measurement and quality of work done.

2. Field Acceptance Test Schedule and Testing Procedure

- a. As per technical requirements, the Acceptance Test is required to be carried out for all 24 Fibers in each cable section, and the Authority Acceptance Test schedule is to be followed for proper testing of the Optical Fiber Cable network
- b. The Optical Fiber Cable sections shall be identified on ABDs attached with the Acceptance Test Report and in the GIS tool.
- c. Testing shall be done in each Optical Fiber Cable section in one direction only and for two wavelengths viz. 1310 nm and 1550 nm using power meter and source. OTDR traces would be obtained for each OF Cable sections to measure and record the splice loss wherever applicable.

3. Measurement & Inspection

- a. Measurement: The measurement books are to be prepared by TPA PoP-wise and are to be certified by APSFL. One hard bound copy (duly signed on each page by APSFL and PMA) and soft copies (scanned) in three CDs will be handed over by PMA to the Authority every day.
- b. Method of recording of complete nomenclature of items, as given in the agreement need to be



reproduced in the measurement sheet for recording the measurement along with corresponding item code as provided, shall be used.

c. The measurements of various items of work shall be taken and recorded in the measurements sheet. The measurements shall be taken and recorded by TPA which will be countersigned by the TPA. TPA shall be directly responsible for supervision of work, shall be responsible for accuracy of 100% of measurements. All the support in terms of tools, availability of manpower at sites and all other assistance etc shall be provided by the contractor. The Authority, without any prejudice, reserves the right to carry out any kind of inspection of the works being carried out by PMA and Contractor at any time to ascertain its quantity and quality.

4. Method of Measurement

The measurement of the work shall be done activity-wise as and when the item of work is ready for measurement. The methods of measurement of various items are enumerated as under:

a. Measurement of length of cable

The length of cables laid on poles shall be measured by use of PON OTDR. The length should be cross-verified with the marking of lengths on the cables. The lengths shall be recorded in sheet provided in the measurement book.

b. Measurement of other items

The measurement/ numerical details of other items shall be recorded in the sheets provided for respective items viz.

- Termination of Cable in equipment room
- The number of joints.
- Record splice loss details for each joint.
- **c.** The TPA & APSFL SPOC shall sign all the measurement recorded in the measurement sheet/book. This will be considered as an acceptance by the PMA of measurements recorded in the MB by Contractor.
- **d.** Measurement of the work of cable for calculation of services portion will be taken equal to the length cable on pole (as measured in the Roadometer) and not the total length of the cable laid through pole.

OFC Testing & Certification Formats:

Test Format 1: Physical Inspection of ADSS OFC & Accessories

	AP	SFL
atwork	Andhra Pradesh	State FiberNet Ltd.

S. No.	Name of Items	Quantities (or Length) Installed / Used (Verified as per Physical Inspection)	Observations	Remarks
1	24 Core Optical Fiber Cable		Accessories: Length: Sag:	
2	FDMS		Routing & Tagging of Fibers	
3	FDB		Routing & Tagging of Fibers	
4	Any other items			

Test Format 2: Report for Splice loss on an ADSS Fiber Cable Section

Section Identity/No.	<u>;</u>	
Section Length	: K	ms
Splice No.	<u> </u>	

Tube Colour	Fiber Colour	Fiber Number	Splice Loss (dB)		
			1310 nm	1550 nm	
		1			
		2			
		3			
		4			
		ТО			
		21			
		22			
		23			
		24			

Name, Signature & Seal of the Authority Official	(Accepted / Rejected)
Date:	

Name, Signature & Seal of PMA Official

Date:

Remarks, if any:

Note: Splice Loss Measurement using OTDR

- 1. The fiber under test is connected to the OTDR which directly displays the splice loss after suitably adjusting the markers. The observations shall be recorded for both the windows i.e. 1310 nm and 1550 nm.
- 2. For the splice(s) within the ADSS Fiber Cable section (in cases where the ADSS Fiber Cable section is more than 2 Kms in length) the splice loss shall be measured for all the 24 fibers. The splice no. shall be counted from POP side towards the nearest POPs. The test results shall be recorded in the format given in Form 3 of the Formats for the Test Report.



Test Format 3: Attenuation Test for ADSS Fiber Cable Section in the POP using Power Meter (for each fiber)

Section Identity/No :_____ Kms
Section Length :_____ Kms
Transmit Power (PTx):_____ dB

	Testing at 1310 nm			Testing at 1550 nm			
Fiber No.	Level at Rec. Loss (in dB) Attenuation per KM (dB/Km)		Level at Rec. End Loss (in dB)		Attenuation per KM (dB/Km)		
	(PRx)	(A=PTx-PRx)	(A/section length)	(PRx)	(A=PTx-PRx)	(A/section length)	
1							
2							
TO							
23							
24							

Name, Signature & Seal of the Authority Official

(Accepted / Rejected)

Date:

Name, Signature & Seal of PMA Official Date: Remarks, if any:

Note:

- a. Carry out total section attenuation loss as mentioned in table above.
- b. All the cables should meet the standard for both the wavelength i.e.1310 nm and 1550 nm as per specification given above i.e. less than 0.43 dB/Km for 1310 nm and 0.30 dB/km. for1550 nm.
- c. Connect standard optical source with 1310 nm and 1550 nm at particular level (say P1 dBm.) at one end of the fiber. Measure with power meter the power at the other End of the fiber (say P2 dBm.)

Thus, attenuation of the fiber = (P1 - P2) dB.

- d. Specifications
 - i. At 1310 nm

Total Link Loss \leq 0.36 dB/km x Section Length + (0.05 dB/Splice) x (No. of Splices) + 0.5 dB x No. of Connectors + splitter loss

ii. At 1550 nm

Total Link Loss \leq 0.21dB/km x Section Length + (0.05 dB/Splice) x (No. of Splices) + 0.5 dB x No. of Connectors

- e. All the 24 Fibers of the ADSS Fiber Cable shall be tested with the pigtail spliced to each fiber one by one for taking the test readings as per the table above.
- f. Attenuation test shall also be taken with OTDR at 1550nm and 1310nm and printout for each fiber at each window shall be obtained.

Preparation of OTDR Traces Report

- a. This method uses an optical time-domain reflectometer (OTDR). Unlike a Power Meter, the OTDR can identify and locate the position of each component in the network. The OTDR will reveal splice loss, connector loss and reflectance, and the total end to end loss.
- b. For End-to-End measurements including joint enclosures must be carried out to document the



- characterization of the joint loss and the total link loss. The OTDR measurement must be conducted upstream (i.e., from the OLT to POP).
- c. Carry out OTDR measurements and take traces taken on all wavelengths (1310 nm / 1550 nm). Soft copy of this report needs to made available for updating in Test reports

Electronics & Network Equipment testing & certification

The TPA will work in-line with the agreed execution schedule during the installation of Electronics & Network Equipment at the field level. The TPA needs to test and certify each location where electronics and network equipment is installed for its operations and acceptance.

Note: Necessary testing equipment required to meet standards compliance will be provided by the contractor. After completion of the testing for each site TPA need to submit the report in prescribed format to the Authority. TPA will use the equipment to validate the reports submitted by the contractor. Any additional tool need to be arranged by TPA at no additional cost to the Authority.

Electronics & Network Equipment Testing & Certification Format

Test Format 4: Field Acceptance Test for POI	•			
Name of District:				
Name of Mandal:				
PoP Name:				
Latitude & Longitude:				
Test Requirements: 133	10 nm	1550 nm		
Cable Attenuation per km (dB)				
Total Physical Cable Length (km)				
Splice Loss Mean Value (dB)				
Total Number of Splices				
Maximum Connectors Loss (dB)				
Total Number of Connectors				
Total Section Loss (dB)				
Test Period: From	om POP	to POP:	_ Kms	
Name, Signature & Seal of the Authority Official Date: Name, Date:		(Accepted / Rejected) ne, Signature & Seal of PMA Official e:		



Remarks, if any:

2.1.1. NOC & Point of Presence (PoP) Testing & Certification

TPA will work in-line with the agreed execution schedule during the set-up, installation and commissioning of Network Operations Centre and Points of Presence. The TPA needs to test and certify commissioning the each PoP and the centralized NOC including other components as mentioned in contractor tender document and other components.

Note: For this verification / certification if any specific tool is required the same shall be arranged by PMA at no additional cost to the Authority.

NOC & PoP Testing & Certification Format

Test Format 5: End to End Testing of Route from PoP to PoP

- 1. The End-to-End testing from POP to POP shall be carried out using Power meter/source and with OTDR after splicing Optical Fiber Cable.
- 2. The average attenuation (dB/Km) for cable shall be recorded in the given format:

a.	Tested Length	:	 Km
b.	Total loss on the length	:	 dB
c.	Average Attenuation per Km.	:	 dB/Km
d.	Fiber length used	:	 Km
e.	Net loss for Fiber at FDMS	:	dB

- 3. End to end Testing shall be done in one direction only for the two wavelengths i.e. 1310 nm & 1550 nm from POP to POP side using Power meter and source. The Fiber connected to each port shall also be tested using the OTDR and the traces obtained shall be recorded for future reference.
- 4. After carrying out this test, the respective POP shall be detected in the NMS by the central NOC team of the Authority and shown as active at the NOC. The Authority shall publish the list of mandals and substations in each district which have gone active.

Test Format 6: End to End Testing of Route from PoP to OLT

- 1. The End to End testing of the ADSS Fiber Cable route from the POP to OLT shall be done by measuring the power received at each POP location using the power meter and source. Thus total attenuation would be recorded.
- 2. The attenuation shall be tested from POP to each FDB at POP in one direction only for two wavelengths 1310 nm and 1550 nm.
- 3. The tests shall be carried on the fiber connected to each of utilized ports.
- 4. The test results shall be recorded in separate sheet for each port.
- 5. Specifications: The total attenuation from POP to POP at each location should be well within the available power budget for GPON equipment which is 28 dB. The maximum value should be about 25 dB. If the budget crosses then mention those records and inform to authority
- 6. The fiber connected to each port shall also be tested using the OTDR and the traces obtained shall be recorded for future reference.

3. KEY PERFORMANCE MEASUREMENT



- a. Unless specified by APSFL to the contrary, TPA shall deliver the resources, perform the services and carry out the scope of work in accordance with the terms of the Scope of Work, the Service Specifications as laid down in RFP,
- b. If the scheduled requirements, service specification includes more than one document, then unless the APSFL specifies to the contrary, the later in time shall prevail over a document of earlier date to the extent of any inconsistency.
- c. The APSFL reserves the right to amend any of the terms and conditions in relation to the Service Specifications and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfilment of the Schedule of Requirements, in mutual agreement with TPA.

4. COMMENCEMENT AND PROGRESS

- a. TPA shall, subject to the fulfilment of the condition's precedent above, commence the Performance of its obligations in a manner as per the Scope of Work and as defined by APSFL.
- b. The TPA shall proceed to carry out the activities / services diligently and in accordance with the stipulations regarding time, manner, mode, and method of execution contained in this RFP and as defined by APSFL.
- c. TPA shall be responsible for and shall ensure that all activities/services are performed in accordance with the Contract, Scope of Work and Service Specifications and that TPA's Team complies with such Specifications and all other standards, terms and other stipulations/conditions set out hereunder.
- d. TPA shall perform the activities/services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used in the industry and shall observe sound management, engineering and security practices. TPA shall always act, in respect of any matter relating to this
- e. TPA, as faithful advisors to the APSFL and shall, at all times, support and safeguard the APSFL's legitimate interests in any dealings with Third parties.

5. STANDARDS OF PERFORMANCE

TPA shall perform the Services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and best practices used in the industry and with Telecom standards recognized by international professional bodies and shall observe sound management, engineering and security practices. It shall employ appropriate advanced technology and engineering practices and safe and effective equipment, machinery, material and methods. TPA shall always act, in respect of any matter relating to the Contract, as faithful advisors to the APSFL and shall, at all times, support and safeguard the APSFL's legitimate interests in any dealings with Third Parties

6. APPROVALS AND REQUIRED CONSENTS

a. The APSFL shall extend necessary support to TPA to obtain, maintain and observe all relevant and customary regulatory and governmental licenses, clearances and applicable approvals (hereinafter the "Approvals") necessary for TPA to provide the Services. The costs of such Approvals shall be borne by APSFL. Both parties shall give each other all co - operation and information reasonably.



b. The APSFL shall also provide necessary support to TPA in obtaining the Approvals. In the event that any Approval is not obtained, TPA and the APSFL shall co-operate with each other in achieving a reasonable alternative arrangement as soon as reasonably practicable for the APSFL, to continue to process its work with as minimal interruption to its business operations as is commercially reasonable until such Approval is obtained, provided that TPA shall not be relieved of its obligations to provide the Services and to achieve the Service Levels until the Approvals are obtained if and to the extent that TPA 's obligations are dependent upon such Approvals.

7. TPA'S OBLIGATIONS

- a. TPA's obligations shall include all the activities as specified by the APSFL in the Scope of Work and other sections of the Tender and Contract and changes thereof to enable APSFL to meet the objectives and operational requirements.
- b. APSFL reserves the right to interview the personnel proposed that shall be deployed as part of the TPA team. If found unsuitable, the APSFL may reject the deployment of the personnel. But ultimate responsibility of the deliverables shall lie with TPA.
- c. APSFL reserves the right to demand changes in personnel which shall be communicated to TPA. TPA with the prior approval of the APSFL may make additions to the project team. TPA shall provide the APSFL with the resume of Key Personnel and provide such other information as the APSFL may reasonably require. The APSFL also reserves the right to interview the personnel and reject, if found unsuitable. In case of change in its team members, for any reason whatsoever, TPA Shall also ensure that the exiting members are replaced with at least equally qualified and professionally competent members.
- d. TPA should submit profiles of those resources who shall be deployed on the project. Any change of resource should be approved by the APSFL and compensated with equivalent or better resource. The APSFL may interview the resources suggested by TPA before their deployment on board. It does not apply in case of change requested by the APSFL.
- e. In case of change in its team members, TPA shall ensure a reasonable amount of time overlap in activities to ensure proper knowledge transfer and handover/takeover of documents and other relevant materials between the outgoing and the new member.
- f. TPA shall ensure that TPA's Team is competent, professional and possesses the requisite qualifications and experience appropriate to the task they are required to perform under this Contract. TPA shall ensure that the services are performed through the efforts of TPA's Team, in accordance with the terms hereof and to the satisfaction of the APSFL. Nothing in this Contract relieves TPA from its liabilities or obligations under this Contract to provide the Services in accordance with the APSFL's directions and requirements and as stated in this Contract and the Bid to the extent accepted by the APSFL and TPA shall be liable for any non-performance, non-compliance, breach or other loss and damage resulting either directly or indirectly by or on account of its Team.
- g. TPA shall be liable for any damage to the property of APSFL, Govt of AP, Govt of India, or any other agency resulting either directly or indirectly by or on account of its Team.
- h. TPA's representative(s) shall have all the powers requisite for the execution of scope of work and performance of services under this contract. TPA's representative(s) shall liaise with the APSFL's representative for the proper coordination and timely completion of the works and on any other matters pertaining to the works.



i. Access to Sites

- a. Sites would include NOC, APSFL Mandal and GP POPs
- b. The APSFL's representative upon receipt of request shall give to TPA access to as much of the Sites as may be necessary to enable TPA to commence and proceed with the works in accordance with the program of work. Any reasonable proposal of TPA for access to Site to proceed with the work in accordance with the program of work shall be considered for approval and shall not be unreasonably withheld by the APSFL. Such requests shall be made to the APSFL's representative in writing at least 7 days prior to start of the work.
- j. TPA shall co-ordinate with the APSFL and stakeholders before commencement of work at any the area. The work should start post approval from APSFL
- k. Formats for all above mentioned reports and their mechanism shall be discussed and finalized along with project plan. The APSFL on agreement between both parties may change the formats, periodicity and mechanism for such reports.
- Periodic meetings shall be held between the representatives of the APSFL and TPA once in every 15 days, or any shorter periods as deemed necessary by APSFL, during the implementation phase to discuss the progress of implementation. After the implementation phase is over, the meeting shall be held as an ongoing basis, as desired by APSFL, to review & evaluate the performance of the TPA.
- m. TPA shall ensure that the relevant stakeholders involved in the execution of work are part of such meetings.
- n. All the goods, services and manpower to be provided/deployed by TPA under the RfP and the manner and speed of execution and maintenance of the work and services are to be conducted in a manner to the satisfaction of APSFL's representative.
- o. The APSFL reserves the right to inspect and monitor/assess the progress/performance of the work/services at any time during the Contract. The APSFL may demand and upon such demand being made, TPA shall provide documents, data or any other information which the APSFL may require, to enable it to assess the progress/performance of the work/service.
- p. At any time during the course of the Contract, the APSFL shall also have the right to conduct, either itself or through another agency as it may deem fit, an audit to monitor the performance by TPA of its obligations/functions in accordance with the standards committed to or required by the APSFL and TPA undertakes to cooperate with and provide to the APSFL/any other agency appointed by the APSFL, all Documents and other details as may be required by them for this purpose. Such audit shall not include TPA's books of accounts.
- q. Should the rate of progress of the works or any part of them at any time fall behind the stipulated time for completion or is found to be too slow to ensure completion of the works by the stipulated time, or is in deviation to Tender requirements/standards, the APSFL's representative shall so notify TPA in writing.
- r. TPA shall reply to the written notice giving details of the measures it proposes to take to expedite the progress to complete the works by the prescribed time or to ensure compliance with RFP requirements. TPA shall not be entitled to any additional payment for taking such steps. If at any time it should appear to the APSFL or APSFL's representative that the actual progress of work does not conform to the approved plan TPA shall produce at the request of the APSFL's representative a revised plan showing the modification to the approved plan necessary to ensure completion of the



works within the time for completion or steps initiated to ensure compliance to the stipulated requirements. The submission seeking approval by the APSFL or APSFL's representative of such plan shall not relieve TPA of any of their duties or responsibilities under the Contract until the plan is explicitly approved by APSFL.

- s. In case during execution of works, the progress falls behind schedule or does not meet the Timelines, TPA shall deploy extra manpower/resources to make up the progress or to meet the RFP requirements. Plan for deployment of extra man power/resources shall be submitted to the APSFL for its review and approval. All time and cost effect in this respect shall be borne by TPA within the contract value.
- t. If TPA's work plans necessitate a disruption/shutdown in APSFL's operation, the plan shall be mutually discussed and developed to keep such disruption/shutdown to the barest unavoidable minimum. Any time and cost arising due to failure of TPA to develop/adhere such a work plan shall be to his account.
- u. Adherence to the safety procedures, rules, regulations and restrictions
 - a. TPA's Team shall comply with the provision of all laws including labor laws, rules, regulations and notifications issued there under from time to time. All safety and labor laws enforced by statutory agencies and by APSFL shall be applicable in the performance and TPA's Team shall abide by these laws.
 - b. Access to the Server Room, NOC shall be strictly restricted. No access to any person except the essential members of TPA's Team who are authorized by the APSFL and are genuinely required for execution of work or for carrying out management/maintenance shall be allowed entry. TPA shall maintain a log of all activities carried out by each of its team personnel.
 - c. No access to any staff of TPA, except the essential staff who has genuine work-related need, should be given.
 - d. All such access should be logged in a loss free manner for permanent record of the staff to avoid misrepresentations or mistakes.
- v. TPA shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. TPA's Team shall adhere to all security requirement/regulations of the APSFL during the execution of the work. APSFL 's employee also shall comply with safety procedures/policy.
- w. TPA shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.

8. RESOURCE DEPLOYMENT

- a. TPA shall deploy their resources in consultation with the APSFL
- b. TPA will designate one senior official to coordinate with the corporate office of APSFL.



- c. In case TPA does not have their office in districts where APSFL network is getting deployed, one senior level personnel should be stationed in those districts for day-to-day coordination activities between APSFL appointed consultants and TPA
- d. The TPA shall carry out all necessary activities during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations
- e. TPA will deploy its resources on all sites as required by the scope of work
- f. Adequate training, required to carry out the activities mentioned in the scope of work above, shall be provided by TPA to all deployed resources
- g. All resources deployed at GP and Block/Mandal level should have an Android Based Smart Phone with Internet Connection, which can have access to APSFL project management tool or any other tool specified by APSFL, as the case may be
- h. All resources deployed at the Block/Mandal, District and State level should have a laptop with internet connection Boarding, lodging, transportation and all other expenses of the deployed resources are to be borne by TPA
- i. TPA shall have their own office space and basic infrastructure, including stationery and other consumables, in the close proximity of APSFL.
- j. APSFL shall be at liberty to object to and demand the TPA to remove from the works any person who in the opinion of APSFL misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by APSFL to be undesirable. Such person shall not be employed again at works site without the written permission of APSFL and the persons so removed shall be replaced with in a week's time by competent substitutes.

9. APSFL'S OBLIGATIONS

- a. APSFL or its nominated representative shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to TPA.
- b. APSFL shall ensure that timely approval is provided to TPA as and when required, which may include approval of project plans, implementation methodology, design documents, specifications, or any other document necessary in fulfilment of this contract.
- c. The APSFL's representative shall interface with TPA, to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract. APSFL shall provide adequate cooperation in providing details, coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the APSFL is proper and necessary.
- d. APSFL may provide on TPA's request, particulars/information/ or documentation that may be required by TPA for proper planning and execution of work and for providing services covered under this contract and for which TPA may have to coordinate with respective vendors.
- e. APSFL may at any time, by a written order given to the TPA, make changes to the Scope of the work at no additional cost.



Roles and Responsibility

The roles and responsibilities of the key stakeholders during the execution of work is detailed in the Responsibility Matrix below.

Legend

Primary	Entity with primary responsibility for an activity is expected to drive the activity and ensure successful completion		
Secondary	Entity with secondary responsibility for an activity is expected to provide support to the primary owner		

Project Stage: Planning

Activities	The Authority	Contractor	PMA	
Approvals and Autl	norizations			
Securing Right Of Way (ROW) permissions through State Electricity MOU agreements	Primary			
Securing permissions for access to POPs locations the State level agreements	Primary			
Information Sh	aring			
Designating a TPA Nodal officer for each District			Primary	
Designate one senior TPA official to coordinate with the corporate office of the Authority			Primary	
Publishing acceptance, testing and sign off procedures			Primary	
Publishing of templates, checklists, data submission formats			Primary	
Project Management Setup				
Commissioning of Project Management Tool			Primary	
Publishing procedures, guidelines, checklists and report formats			Primary	

Project Stage: Verification

Activities	The Authority	Contractor	PMA
Site Access and	Verification	n	
Coordination with local authorities for access to site locations (District, Mandal and, Substation sites etc.)		Primary	Secondary
Site level coordination and verification of availability at site		Primary	Secondary
Resolution of discrepancies with respect to readiness of sites for equipment installation.		Primary	Secondary
Verification of GIS data uploaded by Contractor in the GIS tool			Primary
Provisioning			



ovisioning of testing tools (PON OTDR, adometer, Power meter etc.) for field Primary reptance testing and end-to-end testing			
OFC and Netw	vork Testing	5	
Conducting tests as per Field Acceptance Test Procedures for OFC and Network Testing		Primary	
Provisioning of equipment for photography		Primary	
Take site images at designated locations and images of the testing procedures carried out		Primary	
Verification of material supplied by Contractor as per Engineering guidelines		Secondary	Primary
Verification of Field Acceptance Test Reports			Primary
Regular update of project progress on project management tool as well as sharing with relevant officials as per laid down procedures		Primary (for Contractor Deliverables)	Primary (for PMA Deliverables)
Communicate updated schedule to all stakeholders			Primary
Invoice and	Payment		•
Submission of Contractor invoices with all relevant test reports		Primary	
Verification of Contractor work and approval of invoices and relevant test reports submitted by Contractor		Secondary	Primary
Final Verification of document submitted by TPA and certification by APSFL	Primary		Secondary
Prepare weekly Progress Report for work done in the work package and submit to the Authority		Primary	Secondary



Guidelines for testing of ADSS Aerial Optical Fiber Cable & Accessories

1. Scope

This document is intended to provide guidelines for selection of appropriate methodology for aerial installation of ADSS optical Fiber Cable on Existing Electrical Poles of 440/220/132/33/11 KV Lines and LT lines as per the route map and network design.

a. Manual Installation Method

Manual installation method technique is similar to stationary drum method, except that in this case the cable is uncoiled from the drum and placed on the ground in the shape of 8.

The pulling operation is same as in stationary drum method. The hardware requirement and pulling equipment also remains same.

For pulling in both directions, two loops of shape of 8 can be made and each can be pulled in separate directions. Loops of size 4 to 5m x 1.5m should be sufficient in most cases.

2. Installation of Accessories

a. Pole Clamp

Prior to fixing any temporary supports/stringing blocks or permanent cable suspension / termination assemblies, it is necessary to fix pole clamps. Appropriate type of pole clamps will be required depending on the shape of the pole. The two halves shall be opened and fixed at the specified height using tightening bolts.

b. Terminating (or Dead End) Assembly

Termination assemblies are required at dead ends locations where:

- i. cable needs to be terminated at the end facility
- ii. loops are to be kept for future maintenance activities

For double sided termination assembly 2 sets would be required.

To fix a termination Assembly following accessories are required:

- i. Protective Helix on the cable,
- ii. Terminating Helix with a thimble,
- iii. Clevis Thimble,
- iv. Spiral Vibration Damper

c. Suspension Assembly

ADSS optical fiber cable shall be supported on all intermediate poles between two terminating poles using the pole clamp and a suspension assembly set.

To fix a suspension Assembly following accessories are required:

- i. Protective Helix on the cable,
- ii. Suspension Helix,
- iii. Clevis Thimble,
- iv. Spiral Vibration Dampers



d. Installing Cable Loop / Storage / Joint Closure

Cable loops are to be provided for future maintenance purposes at regular spacing. A fixture is required to be installed. Excess cable is then wound & kept on support. The fixture provides a means to ensure proper bend radius is maintained. Separate clamp is required for installation of Joint Closures.

e. Supporting Jumper Cable Clamp

Jumper cable hanging between a pair of Termination Assemblies installed at locations where there is sharp change in direction need to be supported with a special twisted link. To support jumper cable, Use already installed pole clamp.

f. Cable Tensioning

After the required length of cable has been placed, the cable shall be properly tensioned before it is permanently secured into suspension assemblies.

The temporary dead end should be installed 4 to 5 m from the pole so that after complete tension is applied, appropriate permanent termination assembly set can be installed while the cable is in tension. The chain hoist will also need to be tied to the pole directly using a sling and not onto the pole clamp.

Once the cable sections are under the required tension and the sag is within limits (i.e. less than 1% of span), the "free" end of the cable used for tensioning is fitted with termination assembly set and terminated. Once the load is transferred on to permanent termination end, the temporary arrangement shall be removed.

g. Machinery / Equipment / Tools

- i. Ropes and light weight ladder for installation of termination/suspension assemblies, clamps etc.
- ii. Temporary supports, dynamometer, chain hoists, temporary dead ends, steel cables, etc. required during cable laying and/or cable pulling and cable tensioning operations as applicable will have to be arranged by the Contractor.
- iii. Van with portable splicing machines and OTDR, power meter, cable preparation kits, etc. for splicing and testing of installed ADSS Optical Fiber Cable.
- iv. Other tools and tackles shall include wrenches, spanners, screw drivers, hammer, ropes etc.
- v. All safety equipment such as safety belts, insulating and cotton gloves and hard hats, fluorescent vests etc. as required



3. General Instructions to Bidder

3.1 Earnest Money Deposit(EMD)

- a. Bidders shall submit an EMD as per the Key Events & Dates along with their Bids.
- b. The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest onit.
- c. The bid / proposal submitted without EMD, mentioned above, will be summarily rejected.
- d. The EMD may beforfeited:
 - i. If a bidder withdraws its bid during the period of bidvalidity.
 - ii. If the successful bidder fails to sign the contract and submit Performance Bank Guarantee within the stipulated period.
 - iii. In case, the documents submitted, or the information furnished by the bidder are found to be not genuine/false.
 - w. In case the bidder does not tender for the work, after submission of Tender fees or EMD.

32 RFP Amendment

APSFL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Document by amendment. All the amendments made in the document would be published in the website www.apsfl.in and on the e-procurement platform. APSFL shall not be responsible if the Bidders do not get the individual intimates of such amendments. All such amendments shall be binding on all the Bidders. The Bidders are also advised to visit the aforementioned website on regular basis for checking any updates. APSFL also reserves the rights to amend the dates mentioned in this RFP for Bid process.

3.3 Cost of Bidding

The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/ presentations, preparation of proposal, in providing any additional information required by APSFL to facilitate the evaluation process, and in negotiating a definitive Service Agreement and all such activities related to the Bid process. This RFP does not commit APSFL to award a Contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award of Contract for implementation of Project.

3.4 Site Visit

The bidder may visit and examine sites at a time to be agreed with APSFL, and obtain all information at their own responsibility that may be necessary for preparing the Bid Document. The costs of visiting the site(s) shall be at Bidder's own expense.



3.5 Language

The proposal and all correspondence and documents shall be written in English. In case of accompanying literature or brochures etc., being in a language other than English, a certified translation should accompany the documents as a part of the RFP. All proposals and accompanying documentation will become the property of APSFL.

3.6 Bid Prices

- i. The Bidder shall indicate the price in the prescribed forma tonly.
- ii. The Bidder shall prepare the Bid based on details provided in the RFP. It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by APSFL. The Bidder shall carry out all the tasks in accordance with the requirement of the RFP and due diligence and it shall be the responsibility of the Bidder to fully meet all requirements of RFP.
- iii. Prices shall be quoted in Indian Rupees (INR), shall be exclusive of Goods and Service Tax (GST).

3.7 Bidder Representative

All documents of the bid may be signed by a nominated Competent Authority. All Certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, be signed by the competent Authority.

3.8 Bid Validity

The proposals shall be valid for a period of 180 days from the date of submission of Bids. On completion of the validity period, unless the Bidder withdraws proposal in writing, it will be deemed to be valid until such time that the Bidder formally (in writing) withdraws proposal. If required, beyond 180 days, the Bidder may be asked to extend the bid validity, on its consent.

3.9 Documents comprising the Bids

The bids prepared by the Bidder shall comprise of the following documents:

Documents to be uploaded as PQ Bid (To be uploaded only in "PQ Bid Folder" in the e-procurement platform)

All the below mentioned documents have to uploaded in the "PQ" bid folder of the e-procurement platform. If the following documents are not found in the "PQ" bid folder, the bid shall be considered as non-responsive and may be rejected.

- I. Annexure A Application Form
- II. Annexure B Profile of Bidder/ Partners



- III. Annexure C Declaration of Acceptance of Terms and Conditions in the RFP
- IV. Annexure D Undertaking on SoW Compliance and Unconditional Acceptance
- V. Annexure E Pre-Qualification Compliance Documents
- VI. Annexure F Financial Turnover and Net worth of the Bidder
- VII. Annexure G Format for Past Experience of the Bidder
- VIII. Annexure H Declaration regarding Clean Track Record
 - IX. Annexure I Power of Attorney
 - X. Annexure J Board Resolution
 - XI. Annexure K Document Verification Certificate
- XII. Annexure L Earnest Money Deposit (EMD) Format (only if bidder opts to submit in form of Bank Guarantee (BG), instead of direct online payment through e-procurement portal)
- XIII. Copy of DD of Bid processing fees (only if bidder opts to pay as Demand Draft (DD), instead of direct online payment through e-procurement portal)

Documents to be uploaded as Commercial Bid (To be uploaded only in "Commercial Bid Folder" in the e-procurement platform)

All the below mentioned documents have to uploaded in the "Commercial" bid folder of the e-procurement platform. If the following documents are not found in the "Commercial" bid folder, the bid shall be considered as non-responsive and may be rejected.

- XIV. Annexure M Commercial Proposal Submission Form
- XV. Annexure N Commercial Bid Cost Components

3.10 Modification and Withdrawal

No proposal may be modified / withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period specified by the Bidder on the proposal form. In case the Bidder wishes to withdraw the Bid after the date of opening of the bids, the EMD of the Bidder shall beforfeited.

3.11 Opening of Bids

The Pre-Qualification Bids will be opened on the e-procurement platform on the date and time as specified in the RFP schedule.

3.12 Evaluation of Bids

- a. The Bids of only those Bidders, whose Bid Processing Fee and EMD are inorder, only, will be accepted.
- b. Bidders need to fulfill all the Pre-qualification conditions mentioned in the RFP. The technical committee will examine the Bids to determine whether they are complete, whether the Bid format conforms to the RFP requirements, whether documents have been properly signed, and whether the Bids are generally inorder.



c. Bids of Bidders whose Pre-qualification proposal does not meet the set criteria shall be rejected forthwith.

3.13 Bids Not Considered for Evaluation

Bids shall be summarily rejected due to incomplete documentation or late receipt.

3.14 Pre-Qualification

The pre-qualification evaluation shall be done as mentioned in this RFP.

3.15 Award Criteria

The Authority will open the Price Bids of the bidders who have met the conditions as per the Pre-Qualification Criteria in this RFP. This will be further taken up for Reverse Auction (as mentioned in Section 7.3) to finalize the L1 bidder.

3.16 Rectification of Errors

Biddersareadvisedtoexerciseadequatecareinquotingtheprices. No excuse for corrections in the quoted price will be entertained after the proposals are opened. Errors in proposals will be corrected as per the unit ratesquoted.

3.17 Contacting APSFL

AnyeffortbyaBiddertoinfluencetheTechnicalEvaluationandTenderApprovalCommittee in its decision on Bid evaluation, bid comparison or contract award may result in disqualification of the Bidder's Bid and also forfeiture of Bidsecurity.

3.18 APSFL's right to vary Scope of Work

APSFL may at any time, by a written order given to the Bidder, make changes to the Scope of the work at no additional cost.

3.19 APSFL's Right to Accept /Reject

APSFL reserves the right to accept or reject any proposal, and to annul the bid process and reject all proposals at any time prior toaward of work, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for APSFL'saction.



3.20 Signing of Agreement

The signing of agreement for the project is as follows:

3.21 Signing of Agreement

APSFL notifies the successful Bidder that its proposal has been accepted and APSFL shall enter into an Agreement with the successful Bidder as per the Master Service Agreement prescribed in this RFP. The signing of agreement will constitute the formation of the Agreement.

3.22 Discharge of Bid Security (EMD)

Upon the successful Bidder's furnishing of Performance Security, APSFL will promptly return the EMD to each unsuccessful Bidder EMD within 30 days. The Bid security (EMD) of successful Bidder will be released, on receipt of the Performance Bank Guarantee.

3.23 Expenses for the Agreement

The incidental expenses of execution of Agreement shall be borne by the successful Bidder.

3.24 Failure to abide by the Agreement

Failure of the successful Bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event APSFL may forfeit the EMD/Performance Bank Guarantee. The contract may be awarded to the next lowest bidder, or however deemed appropriate by the Authority.

3.25 Performance Security

- a. The successful Bidder shall have to submit a Performance Security within 15 days from the date of issuance of Letter of Award (LoA). Extension of time for submission of beyond 15 days and up to 25 days from the date of issue of LoA may be given by APSFL, who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 15 days, i.e. from 26th day after the date of issue of LoA. In case the Bidder fails to submit the requisite Performance Security even after 60 days from the date of issue of LoA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against the contract. The failed Bidder shall be debarred from participating in re-tender for that work.
- b. The Performance Security shall be submitted by the successful Bidder after the LoA has been issued, but before signing of the contract agreement. The agreement should normally be signed within 15 days after the issue of LoA and the Performance Security shall also be submitted within this time limit. This Performance Security shall be initially valid up to the stipulated date of completion plus



60days beyond that. In case, the time limit for completion of work gets extended, the contractor shall get the validity of Performance Security extended to cover such extended time for completion of work plus 60 days.

- c. The value of Performance Security to be submitted by the Bidder will not change for variation up to 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Security amounting to 5% (fiver percent) for the excess value over the original contract value shall be deposited by the Bidder.
- d. The Performance Security shall be released after the physical completion of the work based on the 'completion certificate' issued by the competent authority stating that the Bidder has completed the work in all respects satisfactorily. The security deposit shall, however, be released only after the expiry of the defect liability period and after passing the final bill on 'No Claim Certificate' from the contractor.
- e. Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Security be enchased. The balance work shall be got done independently without risk and cost of the failed Bidder; the failed Bidder shall be debarred from participating in the tender for executing the balance work. If the failed Bidder is a JV or a partnership firm, then every member/ partner of such a firm shall be debarred from participating in the tender for the balance work in his/ her individual capacity or as a partner of any other JV/ partnership firm.
- f. The Bank Guarantee should be from a Nationalized/Scheduled Commercial Bank acceptable to APSFL, in the format prescribed in Annexure P in section of this RFP, payable on demand, for the due performance and fulfillment of the Agreement by the Bidder.
- g. All incidental charges whatsoever such as premium, commission etc., with respect to the Performance Security shall be borne by the Bidder. The Performance Security shall be valid for 60 days post completion of the Payment terms as per RFP. However, no interest shall be payable on Performance Bank Guarantee.

3.26 Rejection Criteria

- a. The proposal of a Bidder is liable to be disqualified in the following cases or incase bidder fails to meet the bidding requirements as indicated in this RFP:
 - i. Proposal not submitted in accordance with the procedure and formats prescribed in this document.
 - ii. During validity of proposal, or its extended period after last date and time for submission of Bids, if any, the Bidder increases the quoted prices.
 - iii. The Bidder proposing a "Conditional-Proposal".
 - iv. Proposal is received in incomplete form.
 - v. Proposal is not accompanied by all the requisite documents.
 - vi. Information submitted in Qualification proposal is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the Agreement (no matter at what stage) or during the tenure of Agreement including the extension period if any.
 - vii. Bidder tries to influence the proposal evaluation process by unlawful means at any point of time during the Bid process.



- viii. In case any Bidder submits multiple proposals or if common interests are found in two or more Bidders, the Bids are likely to be disqualified.
- ix. Bidder fails to deposit the Performance Security prior to signing of the Agreement or fails to enter into an Agreement within 60 days of the date of issuance of LoA or within such extended period, as may be specified by APSFL.
- b. Bidders may specifically note that while evaluating the proposals, if it comes to APSFL's knowledge expressly or implied, that some Bidders may have colluded in any manner whatsoever or otherwise joined to form an alliance resulting in delaying the processing of proposal then the Bidders so involved are liable to be disqualified for this contract as well as for a further period of three years from participation in any of the RFPs floated by APSFL and their EMD shall be forfeited
- c. Prevention of Collusion of Vendor: with a view to prevent collusion or the formation into a ring by vendor / Bidder, the following are issued;
 - i. Tender Schedules shall be issued till a date prior to the last date of submission of tenders.
 - ii. Once a vendor / Bidder buys a tender schedule he shall not be permitted to return the schedule after buying a tender schedule / document, if a vendor does not tender for the work, his EMD shall be forfeited (Cash or Bank Guarantee or Both).
- d. APSFL will reject a proposal for award if it determines that the Bidder recommended for award, or any of its personnel, or its agents or, Agencies and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the Contract.

3.27 Termination of Contract

Following clauses shall be applicable, in case of termination of contract:

4.26.1 Termination for default

APSFL may without prejudice to any other remedy for breach of contract, by written notice of default with a notice period of 30 days, sent to the successful bidder, terminate the contract in whole or part

- i. If the successful bidder fails to deliver any or all of the goods and services within the time period(s) specified in the Contract or fails to supply the items as per the Delivery schedule or within any extension thereof granted by APSFL; or
- ii. If the successful bidder fails to perform any of the obligation(s) under the contract; or
- iii. If the successful bidder, in the judgment of APSFL, has engaged in fraudulent and corrupt practices in competing for or in executing the Contract.

In the event APSFL terminates the Contract in whole or in part, APSFL may procure, upon terms and in such manner as it deems appropriate, the goods and services similar to those and delivered and the successful bidder shall be liable to APSFL for any additional costs for such similar goods. However, the successful bidder shall continue the performance of the contract to the extent not terminated.

4.26.2 Termination for Insolvency

APSFL may at any time terminate the Contract by giving written notice with a notice period of 30 days, sent to the successful bidder, if the successful bidder becomes bankrupt or otherwise insolvent. In this event, the termination will be without compensation to the successful bidder, provided that such



termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to APSFL.

4.26.3 Termination for Convenience

APSFL may, by written notice, with a notice period of 30 days sent to the successful bidder, may terminate the Contract, in completely or in part, at any time for its convenience. The notice of termination shall specify that termination is for APSFL's convenience, the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective. On termination, the successful bidder is entitled for compensation to the extent of work done till the date of termination.

3.28 Execution of Work Order

The successful bidder should nominate and intimate APSFL, a manager as Single Point of Contact (SPoC), who should be responsible for effective delivery of material at that location mentioned by APSFL, complying with all the terms and conditions. The successful bidder should ensure that the Manager fully familiarizes with the RFP Conditions, Scope of Work and deliverables.

329 Inspection/Checking/Testing (Sole Decision of Bid Inviting Authority):

In order to ensure that goods are supplied strictly as per the specifications contained in the Purchase order / Mentioned in the RFP, all incoming materials need to be inspected. Inspection may be carried out at supplier's work.

Even in case of pre-dispatch inspection is carried out, final inspection has to be done at stores to ensure that right materials have been dispatched and there are no damages during the process of transportation. In order to ensure proper quality checks, Quality Assurance Plan (QAP) shall be deployed for high value materials and critical components. Requirement of Material Analysis Report, Performance Test, IEC Certification and submission of relevant certificates of the component/material inspected, Guarantee / Warrantee certificates. Inspection at suppliers' works may be carried out by APSFL's Designated Personnel / Operations Manager or by hiring the services of third party. Supplier's may also be advised to provide their In-House Inspection report.

All materials/equipment/Supporting accessories to be supplied against this RFP's (Purchase Oder / Letter of Award) shall be subject to inspection/Checking/testing by the APSFL's Designated Personnel / Operations (In-Line) Manager or if any APSFL's Authorized representative at all stages and Places i.e before, during and after the manufacture. All these tests shall be carried out in the presence of the APSFL's Authorized representative or Designated Personeel only. Supplier shall notifyAPSFL for the Inspection of material/equipment/supporting accessories, within 10 days from the date of issue of LoA / Purchase order in writing.

330 Liquidated Damages (LD)

a. Liquidated Damages will be levied as per the penalty and payment schedule subject to a maximum of 5 % of the total value of the contract for non-fulfilment of delivery schedule.
 Any delay due to the Force Majeure conditions or delay not due to the successful bidder will be excluded from the delivery schedule.



- b. In the event of failure by the successful bidder to fulfil the delivery conditions, Tender Inviting Authority at its discretion may initiate any of the action(s) as given below:
 - i. Extension of time may be permitted to complete the work.
 - ii. Additional resources will be requested for speeding up the work.
 - iii. Liquidated Damages will be levied.
 - iv. Contract with the successful bidder may be terminated as per the Termination clause.
 - v. Any other action as may be deemed fit by Tender Inviting Authority in the best interest of the department.

331 Force Majeure

Neither Tender Inviting Authority nor the successful bidder shall be liable to the other for any delay or failure in the performance of their respective obligations except causes or contingencies beyond their reasonable control due to Force Majeure conditions such as:

- a. Any act of God such as lighting, earthquake, landslide, etc. or other events of natural disaster of rate severity. Meteorites or objects falling from aircraft or other aerial devices, travelling at high speeds
- b. Fire or explosion, chemical or radioactive contamination or ionizing radiation
- c. Pandemic or Epidemic or plague, Act of war (Whether declared or undeclared), threat of war, invasion, armed conflict or act of foreign enemy, unexpected call up of armed forces, blockade, embargo, revolution, riot, religious strife, bombs or civil commotion, sabotage, and terrorism.

3.32 Arbitration

In case of any dispute, the matter will be referred to a Sole Arbitrator to be appointed by APSFL in accordance with the "Arbitration and Conciliation act 1996" and any amendments thereafter the arbitration shall be held in Andhra Pradesh, India and in English..

333 Extension of time in Contracts

Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses.

Extension due to modification

If any modifications have been ordered which in the opinion of APSFL have materially increased the magnitude of the work, then such extension of contracted date of completion may be granted as shall appear to APSFL to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date may be considered necessary as soon as the clause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.

Note: All General Conditions of Contract (GCC) and Special Conditions of Contract (SCC) as per Supply, Government of Andhra Pradesh are applicable for this RFP.



4. Pre-Qualification Criteria

The bidder should satisfy the following Pre-qualification criteria to be eligible for further evaluation under this RFP. The bidder should enclose documentary evidence for fulfilling the Eligibility in the Pre-qualification Bid. If a bidder fails to enclose the documentary proof for eligibility, their bid is liable to be rejected. The prospective bidders must satisfy the following eligibility criteria for submission of their bids and provide supporting documents as proof of eligibility.

S. No	Eligibility Criteria	Documents Required
1	The Bidder should be a company registered in India under the Companies Act, 1956 / 2013, as amended from time to time, and should be in operation for at least the last 5 years as on the date of bid submission.	a) Copy of valid Certificate of Incorporation from Registrar of Companies b) Copy of Corporate Identification Number (CIN) e) Copy of PAN f) Copy of GST registration
2	The average annual turnover of the Bidder in the last three audited financial years i.e. 2018-19, 2019-20 2020-21, including current Financial Year, should be at least INR 2.5 Crores. The turnover of Parent Company shall not be considered.	Certificate from the Statutory Auditor of the Company mentioning year-wise annual turnover in last 3 audited financial years i.e. 2018-19, 2019-20 and 2020-21 including current financial year. Or Copy of audited profit and loss statement showing the turnover for financial years i.e., 2018-19, 2019-20 and 2020-21 including current financial year.
3	Average Net Worth of the Bidder, for the financial years, i.e. financial years i.e. 2018-19, 2019-20 2020-21, including current Financial Year, should have positive net worth as per the audited financial results.	Certificate from Statutory Auditor clearly stating the Net worth of the Bidder, as mentioned in the RfP for financial years i.e. 2018-19, 2019-20 2020-21, including current Financial Year
4	The Bidder should have at least 100 full time qualified personnel, out of which at least 50 should be Graduate Engineers, on its payroll in India having technical / managerial capability as on the date of submission.	Certificate from Human Resources of the Bidder along with list of employees along with their qualification, eligible under this clause
5	The bidder should have at least the indicated number of professionals having minimum experience of 03 years in the following areas:	Self-Declaration by the bidder indicating number of professionals having minimum experience of 03 years in the following areas:



	(a) Optical Fibre Cable (OFC) laying and/or	(a) Optical Fibre Cable (OFC) laying
	testing - 30 employees	and/or testing - 30 employees
	(b) Transmission Equipment Installation and	(b) Transmission Equipment Installation
	testing - 15 employees	and testing – 15 employees
	(c) Network Operations Centre and NMS	(c) Network Operations Centre and NMS
	implementation - 15 Employees	implementation - 15 Employees
	(d) Network Design -10 Employees	(d) Network Design -10 Employees
6	The Bidder should have valid ISO 9001:	Copy of valid certificate.
	2000 certificate or equivalent	
7	Bidder should have experience in	Copy of Work Order(s) / Contract(s) and
	laying/Monitoring of at least 1000 Km	correspondingly the Completion
	(Route Length) of Underground or	Certificate(s) for each work.
	Overhead OFC / Underground or Overhead	For on-going work, Performance
	electrical cables / signalling cables / PIJF	Certificate(s) have to be submitted for the
	cables / Telecommunication cables in India	specifying the portion which has been
		completed.
8	Bidder should not have been blacklisted by	Bidder should submit an undertaking, as
	any central or state Govt. department or PSU	mentioned in the RFP, that it has not been
	on the date of bid submission	blacklisted/debarred by any Govt.
		department or any PSU in India as on bid
		submission date.
8	All documents in the proposed bid, shall be	For Pvt. Ltd. firms, a Board Resolution, as
	signed by an authorized signatory, in whose	mentioned in Annexure-J, in Section
	name the Power of Attorney/ Board	7.1 of the RFP to be submitted.
	Resolution, should be duly issued.	For others, the Power of Attorney, as
		mentioned in the RFP to be submitted.
9	Bidder to Share the Document Verification	Certificate, on INR 100/- non-Judicial
	Certificate	Stamp Paper and duly notarized and
		Stamp, to be enclosed along with the bid
		documents in the RFP.

NOTE 1:

- a. Only the bids of those Bidders, who submit the prescribed Bid-processing fee and EMD, shall be considered for evaluation. The bids not accompanied with a valid Bid-processing fee and EMD as part of the proposal shall be summarily rejected.
- b. The Commercial bids of **only** those bidders, who meet the Pre-Qualification criteria, shall be opened.
- c. Bidders are required to provide the aforementioned information as per the formats provided along with the required supporting documents for each of the criteria mentioned above.

Post Tender Discussions at any cost and at any form will not be entertained.

Proposals without necessary supporting documents or without meeting the prescribed qualification criteria will be treated as non-responsive and will not be considered for further evaluation.

Note 1:



- a. Only the bids of those Bidders, who submit the prescribed Bid-processing fee and EMD, shall be considered for evaluation. The bids not accompanied with a valid Bid-processing fee and EMD as part of the proposal shall be summarily rejected.
- b. The Commercial bids of <u>only</u>those bidders, who meet the Pre-Qualification criteria, shall be opened.
- c. Bidders are required to provide the aforementioned information as per the formats provided along with the required supporting documents for each of the criteria mentioned above.

Proposals without necessary supporting documents or without meeting the prescribed qualification criteria will be treated as non-responsive and will not be considered for further evaluation.

4.1. Commercial Evaluation Criteria

- a. Financial bids submitted of only those bidders, who are qualified as per pre-qualification criteria shall be opened and are eligible for further evaluation.
- b. All the Pre-qualification qualified bidders shall be notified to participate in Commercial Bid opening process.
- c. Bidders quoting unrealistic cost shall be rejected straightaway by APSFL. Any bid found to have unsatisfactory response in the eligibility criteria as mentioned shall be rejected and shall not be considered for further evaluation.
- d. The commercial Bids for the Pre-Qualification qualified bidders shall be reviewed to determine whether the Commercial Bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at purchaser's discretion.
- e. Commercial Bids that are not as per the provided format in section 6.2shall be liable for rejection. In case of computation error in commercial forms, the Technical/Evaluation Committee's decision in this regard shall be final and binding on all.

4.2. Reverse Auction

- a. APSFL will schedule the reverse auction on the website of eProcurement.
- b. Only the qualified and whose financial bids are complying to the RFP requirements only will be permitted to participate in the reverse auction.
- c. The date and time will be intimated to the qualified bidders.
- d. Reverse auction will be conducted on the total price of the respective schedule, quoted by the bidder for the indicated quantities in the cost sheet.
- e. The amount quoted in the Bid will be considered for overall evaluation to arrive 'L1' bidder.
- f. The 'opening price' i.e. start price for Reverse Auction will be the L1 price quoted.
- g. The reverse auction will be conducted for the entire schedule. The bidder's screen will have provision for decrement of prices. In the bidder's screen the total price of his bid and the total lead price at that instance will also be displayed.
- h. For the purpose of Reverse Auction, the minimum bid decrement will be Rs. 10,00,000/- (Rupees Ten lakhs only)
- i. The Bidders can modify the total price of the bid based on the minimum bid decrement or the multiples thereof, to displace a standing lowest bid and become "L1", and this will continue as an iterative process.



- j. The reverse auction shall be conducted for 3 Hours. If any bidder submits a bid in the last 15 min of the auction closing time, the auction time will be automatically increased by 15 minutes. All bidders are required to submit their online bids during this period.
- k. After the completion of the online reverse auction, the Closing Price (Final L1 Price) and the successful bidder shall be finalized. The bidder has to submit the breakup of the revised cost (post reverse auction) as per commercial bid format of RFP within 2 working days after completion date of the reverse auction to the Email address: apsfl@ap.gov.in.
- 1. In case the bidder fails to submit the breakup of the cost quoted in the reverse auction, the quote shall stand cancelled and the EMD of the bidder will be forfeited.

4.3. Selection Process of Bidder

Evaluation of bids shall be done on Least Cost/Lowest Cost (L1) criteria as per the quotes submitted in reverse auction



5. Annexure

5.1 Annexure A–Cover Letter

(To be submitted by Bidder on Original Letterhead)

To [Date]

The Managing Director,
Andhra Pradesh State FiberNet Limited,
3rd Floor, NTR Administrative Block,
Pandit Nehru Bus Station,NH – 65, Vijayawada – 520013

Subject: RFP for -----

Ref: APSFL-----

Dear Sir,

With reference to your RFP Document dated I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal.

- 1. All information provided in the Proposal and in the Appendices, is true and correct and all documents accompanying such Proposal are true copies of their respective originals.
- 2. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
- 3. I/We acknowledge the right of the Authority to reject our Proposal without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
- 4. I/We to the best of our knowledge certify that in the last three years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
- 5. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the vendor, without incurring any liability to the Bidders
- 6. I/We to the best of our knowledge certify that, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- 7. I/We to the best of our knowledge further certify that, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
- 8. I/We agree and understand that the Proposal is subject to the provisions of the RFP document. In no case, shall I/We have any claim or right of whatsoever nature if our Proposal is not opened or rejected.
- 9. I/We agree to keep this offer valid for 180 days from the Proposal Due Date specified in the RFP.
- 10. I/We agree and undertake to abide by all the terms and conditions of the RFP Document. In witness thereof, I/We submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,



(Signature, name and designation of the authorized signatory)

(Name and seal of the firm)

5.2 Annexure B – Bidder Profile

To be submitted by Bidderon original letterhead. In case of Bidder bidding by forming a Consortium, Lead Bidder to submit the details of each member firm of Consortium.

#	Particulars	Details
1.	Name of the Company	
2.	Year of incorporation	
3.	Nature of the Company (Registered Company)	
4.	Registered Office Address	
	Office Telephone Number	
	Fax Number	
5.	Contact Person	
	Name	
	Telephone Number	
	Email Address	
6.	Local presence at Andhra Pradesh	
	Office Address	
	Office Telephone Number	
	Fax Number	
7.	Contact Person(in Andhra Pradesh)	
	Name	
	Telephone Number	
	Email Address	
8.	Registration Details	
	Permanent Account Number (PAN)	
	VAT Registration Number	
	CST Registration Number	
	Service Tax Registration Number	
	GST Number	
9.	Banker's Name, Address and Account Number	

Witness:	SUPPLIER:	
Signature	 Signature	
		-
Name	 Name	
A 11	Daniamatiam	-
Address	 Designation	
	Company Sea	_ [
Date	 Date	
		-



53 Annexure C- Declaration of Acceptance of RFP Terms & Conditions

(To be submitted by Bidder on original letterhead)	
To,	[Date]
The Managing Director,	
Andhra Pradesh State FiberNet Limited,	
3rd Floor, NTR Administrative Block,	
Pandit Nehru Bus Station,NH – 65, Vijayawada – 5200	013
Subject: RFP for	. -
Sir,	
It is to certify that the RFP document – RFP No understood and all the sections and clauses a UNEQUIVOCALLY. There is no deviation from the confirm that the solution proposed by us will meet the proposed by the propose	re COMPLIED UNCONDITIONALLY AND terms & conditions of the RFP.We also hereby
Yours faithfully,	
(Signature, name and designation of the authorized sign	natory)
(Name and seal of the firm)	



55 Annexure D – Undertaking on SoW Compliance and Unconditional Acceptance

То		
Managing Director		
Andhra Pradesh State FiberNet Ltd.		
3rd Floor, NTR Administrative Block	k, Pandit Nehru Bus Station	n, NH-65,
Vijayawada – 520001, Andhra Prade	sh,	
India.		
Subject: Undertaking on SoW CompleRFP No		Acceptance with reference to
We, M/s	, based at	hereby confirm our compliance to
) of the above referenced RFP. By way of
this compliance undertaking, we conservices outlined in the SoW, as per the	=	e capability and experience to perform the the RFP.
We confirm our unconditional accepthe Terms and Conditions and Scope		of providing services in accordance with
For M/s		
Authorized Signatory (duly s	signed and stamped)	
Name		
Designation		
Designation		



5.6 Annexure E – Pre-Qualification Compliance Documents

The bidder should attach following checklist for compliance with important criterion along with the bid to be submitted:

S. No.	Item	Complied	Remarks
5.110.	Ttem	(Yes/ No)	Kemarks
1.	Bid Processing Fee		
2.	EMD		
3.	Application Form		
4.	All pages of bid are numbered, signed by authorized signatory and bids are sealed properly		
5.	Proof of authorized signatory (Power of Attorney/ Board Resolution)		
6.	Profile of the Bidder		
7.	Financial Turnover and Net worth of the Bidder		
8.	Previous experience of supply/ installation/ maintenance of Underground Optical Fiber works in the last three financial years as on bid submission date.		
9.	Self-Declaration Certificate (Certificate to be enclosed in the bid duly signed by the authorized signatory on its letterhead) regarding blacklisting by any central or state Govt. department or PSU on the date of bid submission.		
10.	Undertaking for Unconditional Acceptance of Terms and Conditions of the RFP		
11.	Self - Declaration letter as OEM		



5.7 Annexure F – Financial Turnover and Net worth of the Bidder

(To be submitted by Bidder)

Annual Turnover of the Bidder

Criteria	Sub Criteria	FY	Total Financials
	Turnover from business	FY 2017-18	
Financial Capability	activities	FY 2018-19	
		FY 2019-20	
		FY 2020-21	
	Measured as paid-up capital	FY 2017-18	
NT / / T	plus free reserves	FY 2018-19	
Net worth		FY 2019-20	
		FY 2020-21	

Documentary Proof Required:

- Statutory Auditor / CA Certificate clearly specifying the turnover for the specified years.
- Audited P&L and Balance Sheets



58 Annexure G – Format for Past Experience of the Bidder

Please provide citations as per the Qualification / Technical criteria in the format provided below. The relevant documentary proofs need to be attached.

Project Title			
(Attach separate sheet fo	or each Project)		
Name of Client		Address	
Type of Client		Order Valueof	
(Govt./PSU/Others)		theProject (in	
		Crores)	
Duration of the		Start Date	
Assignment		(month/year):	
		End Date	
		(month/year):	
Referrals (Client side):	Name		
Provide one referral	Designation		
only	Contact Number		
	E mail Id		
Brief Description of			
the Project			

Documentary Proof Required:

Copy of Work orders



59 Annexure H – Declaration regarding Clean Track Record

To,	[Date]
Managing Direc	tor
Andhra Pradesh	State FiberNet Limited
NTR Administra	ative Block, 3rd Floor, Pandit Nehru Bus Station,
NH -65, Vijayav	vada – 520001
Sub:	
Ref:	
Sir,	
any State Gover any other Quasi	clare that my company has not been debarred / black listed as on Bid submission date by nment, Central Government, Central & State Govt. Undertakings / Organizations and by Government bodies / Organizations, and any other major Enterprise / Organizations in isfactory past performance, corrupt, fraudulent or any other unethical business practices.
Yours faithfully,	
(Signature, name	e and designation of the authorized signatory)
(Name and seal	of the firm)
Note:	
 Submissi may lead to disq 	on of this Annexure is mandatory along with the bid. Failure to submit this Annexure ualification.



5.10 Annexure I – Power of Attorney

Sample form of Power of Attorney for signing the Application & Bid

(On INR 100.00 Non judicial Stamp Paper and duly notarized and Stamp)

KNOW ALL MEN BY THESE PRESENTS,

name of the firm and address of the
opoint and authorize Mr. / Ms. (name), of and presently residing at oyed with us and holding the position of l attorney (hereinafter referred to as the
s, deeds and things as are necessary or
our application for qualification and
(the
mited to signing and submission of all
n pre-applications and other conferences ng us in all matters before the APSFL, ment and undertakings consequent to all matters in connection with or relating ard thereof to us and/or till the entering
y and confirm all acts, deeds and things in exercise of the powers conferred by by our said Attorney in exercise of the e been done by us.
and will continue to be valid binding ceases to be in the employment of the nis power of attorney will supersede any on. In case this Power of Attorney is
Mr./Ms.
any has set his hands with company seal and at



1.	2
	<i>)</i> .
4.	4.

Accepted (Authorised Signatory of the company)

(Signature in Duplicate, Name, Title and Address of the Attorney)

Witnesses:

1. (Notarized)

2.

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favor of the person executing this Power of Attorney for the delegation of power here-under on behalf of the Bidder.
- In case the Application is signed by an authorized signatory / Partner, a certified copy in the regard should be enclosed in lieu of the Power of Attorney.



5.11 Annexure J – Board Resolution

Board Resolution (Suggested format)

(To be printed on organization letter head)

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD
OF DIRECTORS of (Company Name) HELD ON (Date)
(Address)
RESOLVED THAT the company has decided to authorize, Mr. / Ms to sign and submit all the necessary
applications, annexure, and other documents to be submitted by the company in connection with RFP
binding on the company, until the same is withdrawn by giving written notice thereof.
Specimen Signatures of Authorised Signatory:
(Signature)
RESOLVED FURTHER THAT, a copy of the above resolution duly certified as true by designated director/ authorised signatory of the company be furnished to APSFL as may be required from time to time in connection with the above matter.
For the Organization,
(Seal & Signature)
Name:
Designation:
Note:



5.12 Annexure K – Document Verification Certificate

FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS

(On INR 100.00 Non judicial Stamp Paper and duly notarized and stamped)

I(Name and designation)** appointed as the attorney/authorized signatory of the
tenderer (including its constituents), M/s (hereinafter called the tenderer) for the
purpose of RFP foras per the tender No, dated:
of APSFL, do hereby solemnly affirm and state on the behalf of the tenderer including its
constituents as under:
1. I/We the tenderer(s) am/are signing this document after carefully reading the contents.
2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in
confirmation thereof.
3. I/We hereby declare that I/we have downloaded the tender documents from APSFL website
http://apsfl.in/tenders/ or AP procurement website www.apeprocurement.gov.in. I/we have verified
the content of the document from the website and there is no addition, no deletion or no alteration to
the content of the tender document. In case of any discrepancy noticed at any stage i.e., evaluation of
tenders, execution of work or final payment of the contract, the master copy available with the
APSFL shall be final and binding upon me/us. 4. I/we declare and certify that I/we have not made any misleading or false representation in the forms,
statements and attachments in proof of the qualification requirements.
5. I/We also understand that my/our offer will be evaluated based on the documents/credentials
submitted along with the offer and same shall be binding upon me/us.
6. I/We declare that the information and documents submitted along with the tender by me/us are
correct and I/we are fully responsible for the correctness of the information and documents,
submitted by us.
7. I/We understand that if the certificates regarding eligibility criteria submitted by us are found to be
forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to
forfeiture of the tender EMD besides banning of business for a period of up to five years. Further,
I/we (insert name of the tenderer) **and all my/our constituents understand that my/our offer shall be summarily rejected.
8. I/We also understand that if the certificates submitted by us are found to be false/forged or incorrect
at any time after the award of the contract, it will lead to termination of the contract, along with
forfeiture of EMD and Performance guarantee besides any other action provided in the contract
including banning of business for a period of up to five years.
SEAL AND SIGNATURE OF THE TENDERER
Place:
Dated:
Note:



5.13 Annexure L – Earnest Money Deposit (EMD) Format

(To be executed in Rs.100/- Stamp Paper)

To,	
The Managing Director,	
Andhra Pradesh State FiberNet I	Limited,
3rd Floor, NTR Administrative l	Block,
Pandit Nehru Bus Station,	
NH – 65, Vijayawada – 520013	
Bank Guarantee No:	
Amount of Guarantee:	
Guarantee covers from:	
Last date for lodgement of claim	ı:
(hereinafter referred to as "Administrative Block, 3rd Fl (hereinafter referred to as "Ben as per the rec (hereinafter referred to as "Bir Pradesh State FiberNet Limite liability of the Bank under this the guarantee shall remain in written demand or claim by the ANDWHEREAS it has been with a Bank Guarantee by a Schold submission. ANDWHEREAS we have agree THEREFORE, we (Bankers as behalf of the Bidder for Rs. /-written demand without any de Rs. /- (Rupees Only) as a	emur, cavil or argument, any sum or sums within the limit of aforesaid, without your needing to prove or show grounds or reasons for cified therein. We will pay the guaranteed amount notwithstanding any
This Guarantee is valid unt Place:	il
Date:	Signature and seal of Guarantors (Bank)



5.14 Commercial Forms

Annexure N – Commercial Proposal Submission Form

Dated	1:
То	
The Managing Director,	
Andhra Pradesh State FiberNet Limited,	
3rd Floor, NTR Administrative Block,	
Pandit Nehru Bus Station, NH- 65,	
Vijayawada – 520013	
Subject: ""	
Reference: RFP No:	
We, the undersigned SUPPLIER, having read and examined in detail all the RFP in respect" do hereby propose to provide services as specified in the RFP number	of "

1. PRICE AND VALIDITY

- a. All the prices mentioned in our Bid are in accordance with the terms & conditions as specified in the RFP. The validity of bid is 180 days from the date of opening of the RFP.
- b. We are an Indian Firm and do hereby confirm that our prices excludes all taxes. However, all the taxes are quoted separately under relevant sections and shall be applicable as per actuals.
- 2. We have studied the laws relating to Indian Income Tax Department and hereby declare that all income tax, surcharge on Income Tax, Professional and any other Corporate Tax, withholding tax as applicable under the law, shall be paid by us.

3. EARNEST MONEY DEPOSIT (EMD)

We have enclosed an EMD for a sum of Rs. /- (In Words - Rupees $_$ Only). This EMD is liable to be forfeited in accordance with the provisions of the Section II - General Instructions to Bidders.

4. TENDER PRICING

We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in RFP.



5. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Bid, we agree to furnish the same in time to your satisfaction.

6. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in Scope of Work. These prices are indicated in Bid Submission Formats attached with our Financial Bid as part of the Bid Response

7. CONTRACT PERFORMANCE GUARANTEEBOND

We hereby declare that in case the Contract is awarded to us, we shall submit the Bank Guarantee for Contract performance in the prescribed format given in RFP.

We hereby declare that our Bid is made in good faith, without collusion or fraud and the information contained in the Bid is true and correct to the best of our knowledge and belief. We understand that our Bid is binding on us and that you are not bound to accept a Bid you receive.

We confirm that no deviations are attached here with this financial offer. Thanking you,

Name ----- Name -----

Date ----- Date-----

----- Designation-----

Address

Company Seal -----



Annexure O – Commercial Bid Cost Components

S.NO	Item Description	UOM	Quantity	Unit Price In Rs.	Total Price In Rs.
1	Audit for passive infrastructure for AP Fiber Grid Phase I Projet	Kms	24,000		
Total					
Total (in Words)					

^{*}Exclusive of Taxes

- Supply to designated locations /central warehouse within AP as informed by APSFL.
- Unit Rate shall include all duties, levies, insurance, transport and other charges excluding Taxes.
- The rate quoted will be valid throughout the contract period and subject to vary on contract period.
- If there is a discrepancy between words and figures, the amount in words shall prevail.
- The volume may be increased more than the prescribed quantities based on mutual consent.

APSFL reserves the right to:

- 1. Negotiate with the Bidder whose offer is the lowest (L1) for further reduction of prices.
- 2. Ask other bidders to match the price of L1 to declare them as the shortlisted bidders.
- 3. Modify, reduce or increase the quantity requirements to an extent of the tendered quantity
- 4. Change the list of delivery locations from time to time based upon the requirement of the purchase.
- 5. If delivery performance of the Bidder is not as per the Schedule, then APSFL reserves the right to take action against them including cancelling the complete order, forfeiting the Bank Guarantee and blacklisting.
- 6. APSFL reserves its right to withhold any amount for the deficiency in the service aspect of the ordered items supplied.



5.15 Other Forms and Formats

8 Annexure O – Performance Bank Guarantee Format

(To be submitted by the successful bidder on Rs.100/- stamp paper)

In consideration of APSFL ("Authority"), having agreed to accept from
"successful bidder", a
Performance Bank Guarantee as maybe modified from time to time wherever
necessary under the terms and conditions of the Agreement entered into by the said
successful bidder in respect of work for "Name of Work", Dated:under
APSFL for the due fulfilment of the terms and conditions of the said Agreement
under APSFL, on production of a Bank Guarantee for Rs(Rupeesonly),we
"Bank" branch, hereby undertake the guarantee to pay
immediately to APSFL, on demand in writing by APSFL, an amount of Rs.
(Rupees)
without any reservation and recourse against any loss or damage caused to or
suffered by APSFL by reason of any breach by the successful bidder of any of the
terms and conditions of the said agreement under the said Authority.
We Bank, further agree
that the guarantee hereby contained shall remain in full force and effect during the
period that will be taken for the performance of the said Agreement under the
APSFL and that it shall be in enforcement until all the dues of APSFL under or by
virtue of the said Agreement under the APSFL have been fully paid and their claims
satisfied or discharged or until the said Authority certifies that the terms and
conditions of the said Agreement under the APSFL have been fully and properly
carried out by the successful bidder and accordingly discharges the guarantee
subject. This bank guarantee is valid until (date) and
APSFL shall have no rights under this guarantee after (date).
We Bank, lastly undertake not to
revoke this guarantee during its currency except with the previous consent of the
APSFL in writing.
Dated day of 2021.
Place:
Date: Signature and seal of Guarantors (Bank)



9 Annexure P-Draft Contract Format

THIS AGREEMENT made the day of20XX
BETWEEN
The APSFL (hereinafter referred to as "the Purchaser") which expression shall
unless repugnant to the context or meaning thereof mean and be deemed to include
its authorized agents, representatives and permitted assigns of the First Part.
AND
The Party (hereinafter referred to as "the SUPPLIER") which
expression shall unless repugnant to the context or meaning thereof mean and be
deemed to include their successors and permitted assigns having its registered
office at of the Second Part.
WHEREAS
The Purchaser had invited Bids vide their Tender (hereinafter referred to as
"RFP") for "Name of Work".
The SUPPLIER had submitted its proposal dated (hereinafter referred to
as the 'Rid') for the provision of such services in accordance with its proposal as set

- (a) The SUPPLIER had submitted its proposal dated ______ (hereinafter referred to as the 'Bid') for the provision of such services in accordance with its proposal as set out in its Bid and in accordance with the terms &conditions of the RFP and this Contract.
- (b) The Purchaser has agreed to select the SUPPLIER for the provision of such services and the SUPPLIER has agreed to provide services as are represented in the RFP, including the terms & conditions of this Contract, the Schedules and Annexure attached hereto and in accordance with the terms & conditions of the RFP and in terms of the discussions, negotiations and clarifications in relation to the implementation of the scope of work
- (c) In consideration of the foregoing and the mutual covenants and promises contained herein and other good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the parties intending to be bound legally.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- (d) In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of the Contract referred to.
- (e) The following documents shall be deemed to form and be read and construed as part of this Agreement viz:
 - i. the Scope of Work
 - ii. the General Conditions of the Contract



- iii. Copy of RFP, financial proposal as submitted by the SUPPLIER and as amended pursuant to the post bid negotiations
- iv. Format of bank guarantee for Performance Security.
- v. the Service Level Agreement (SLA)
- vi. the Purchaser's Notification of Award.
- (f) In consideration of the payments to be made by the Purchaser to the SUPPLIER as hereinafter mentioned, the SUPPLIER hereby covenants with the Purchaser to provide the Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- (g) The Purchaser hereby covenants to pay the SUPPLIER in consideration of the provision of the Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written

Signed, Sealed and Delivered by the said		(For the Purchaser
in the presence of:	(WITNESS)	
Signed, Sealed and Delivered by the said		(For the
Ridder) in the presence of:	(WITNESS	0