



REQUEST FOR PROPOSAL (RFP)

FOR

LEASING OF DARK FIBERS OF OPGW LAID ON CERTAIN SECTIONS OF APTRANSCO EHT LINKS IN ANDHRA PRADESH

Ref. No.APSFL/OPGW/2021-22, Dated 14/10/2021

Andhra Pradesh State FiberNet Limited

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

Vijayawada - 520013

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SCOPE OF WORK		
NOTICE INVITING TENDER (NIT)		
1.	Department Name	ANDHRA PRADESH STATE FIBERNET LIMITED
2.	Bid Notice No.	APSFL/OPGW/2021-22, Dated:14.10.2021
3.	Bid Subject	Leasing of Dark Fibers of OPGW laid on certain section of APTRANSCO EHT Links in Andhra Pradesh
4.	Period of Lease	<p>Minimum lease rate Rs.12,543/- per fiber pair per Km per annum excluding 10% maintenance charges and exclusive of GST in First year.</p> <p>A minimum of 5% escalation in leased rates in subsequent years will be charged by APSFL.</p> <p>The maintenance charge for OPGW cable is 10% of Contract value that is Rs.1254/- per fiber pair per km per annum</p> <ol style="list-style-type: none"> 1. Lease of fiber shall be done for minimum of 1000Kms only 2. Lease shall be done for a period of 15 years on annual lease basis. 3. After 15 years, the bidder can renew on annual basis as per mutually agreed terms and conditions for further period of 5 years.
5.	Form of Contract	Single package
6.	Bid Type	Open and two-part Bidding
7.	Bid Category	LEASING OF DARK FIBERS
8.	Bid Processing fee (Non-Refundable)	Rs.50,000/- in the form of DD payable to Andhra Pradesh State FiberNet Limited. The Bid processing fee shall be submitted at APSFL Corporate office, Vijayawada before the Bid submission date
9.	EMD (Refundable)	Rs. 1,50,000/- should be submitted in the form of BG in the name of Andhra Pradesh State FiberNet Limited or can be paid online on AP e-procurement platform
10	PBG	3% Bank Guarantee/ FDR on the contract value should be submitted in favour of Andhra Pradesh State FiberNet Limited
11	Tender Publishing Date	14/10/2021
12	Last Day for Pre-bid queries	21/10/2021
13	Last Date for submission of Bids	29/10/2021 till 3:00PM on AP e-procurement platform
14	Opening of Technical Bids	29/10/2021 at 4:00PM on AP e-procurement platform
15	Opening of Financial Bids	Will be intimated to bidder at later point of time
16	Contact Details	Mr. Ramesh Naik Sr. Manager, APSFL 9121101451

1. INTRODUCTION:

The APSFL is holder of Infrastructure Provider Category -1 IP-1 license from the DoT (Department of Telecommunication).

2. BACKGROUND

Overview of OPGW connected Communication Network of APSFL

APSFL has an extensive Optical fiber network spreading over 14941 kM in the existing Transmission Grid network consisting of EHV links of 400kV, 220kV, 132kV levels and their corresponding sub-stations all over Andhra Pradesh state. APSFL got 24 fibers in the deployed OPGW network. Out of this, 8(4*2) fibers are in use for real time telemetry/ ERP purpose of APTRANSCO, 6(3*2) fibers are in use for APSFL own network. Remaining up to 10(5*2) fibers of OPGW network have been proposed for leasing out along the route length of over 14941 km. In line with the National Telecom Policy, APTRANSCO has authorized APSFL to initiate this spare fiber leasing business by leasing out up to 5 fiber pairs (Ten fibers) of the existing Optical Fibers Communication (OFC) network. Communication Network diagram showing the stations of communication network of APSFL's Optical fibers proposed for leasing is enclosed in Annexure-I.

Section wise details are placed under the head 'Technical details of the OPGW connected Grid sub-stations and Transmission links'. Not in use and are readily available for use by the party to whom spare fibers are required.

However, APSFL reserves its right to use the above spare fibers in case such need arises.

In such case, APSFL may use leased out spare fibers subject to the mutual consent.

- iii) The APSFL/Vijayawada invites bids on e-procurement platform in two parts from the interested parties to quote their highest leasing price per fiber pair for **15 years of lease for minimum 1000kms of OPGW cable for a Minimum of one (1) fiber pair (Two fibers) and Maximum up to 5 (Ten fibers) pairs** in the sections of the offered spare fibers on commercial (as passive infrastructure) basis. Applicants shall ensure that they meet the Eligibility Criteria as defined at Para (1) of Volume II, given below
- iv) The OPGW cable laid on EHT links in all the 13 districts as follows with an approximate length of OPGW:

Sl. No.	Name of the District	Total No. of KM of Links	No. of Links (*)
1	Srikakulam	418	12
2	Vizianagaram	551	15
3	Visakhapatnam	1691.75	44
4	East Godavari	994	36
5	West Godavari	1252.97	34
6	Krishna	799	24
7	Guntur	956	28
8	Prakasam	1216	29
9	Nellore	1037.78	20
10	Chittoor	1076.5	33
11	Kadapa	1379	39
12	Kurnool	1277	29
13	Anantapuram	1429	37

*Note: The above links may vary based on enhancements of the network

The actual length of the dark fiber will be recorded as per the measurement of dark fiber with OTDR. These OTDR readings will be considered for arranging final length of the dark fiber. The Optical Fibers, complies of ITU-G-652 grade. Leasing-in of Optical Dark Fibers on Optical Fiber Ground Wire (OPGW) construction is in tune with the industry standard.

- v) The testing standards for the fibers on OPGW and the related activities are given below:
 - a) After end-to-end (Substation A to Substation B) connectivity on dark fibers, bi-directional span testing will be done.
 - b) Fiber loss measurements at 1310 nm/1550 nm will be measured using an industry accepted laser source and power meter. End to end testing will be done on leased dark fibers.
 - c) Losses on fiber shall be maintained as per the norms given in SLAs.
 - d) All OPGW cables have joint enclosure boxes for every 3 km length and maximum of 5 Km length based on field conditions.
- w) The actual co-location charges towards space and power in the substation where sub-lease holder keeps their active equipment, has to be totally paid to APSFL with 5% year on year escalation for subsequent 15 years. The minimum co-location charges to be paid in the first year is Rs.2,65,000 (exclusive of taxes) per location per annum

VOLUME – II

BID

3. Eligibility Criteria for Lease holder:

i) The Bidders / Firms should be

- a. Reputed Telecom operators, Telecom infrastructure providers having experience in Telecom Network Operations and having a valid license from the competent authority for the right of use of optical fibers on lease.

Priority shall be given to Telecom service providers having experience in Telecom Network operations, however, firms with IP-1 registration issued by DOT, Govt. of India shall be considered as eligible bidder.

- b. The bidder should possess the valid registration.
- c. Are not blacklisted or debarred or suspended by the Government for whatever the reason, prohibiting them not to continue in the contracting business.

ii) FINANCIAL

The bidders are required to furnish the following documents (commercial & technical) to assess the capacity and capability of the bidder.

- a. Certificate of incorporation
- b. GST registration certificate
- c. CA Audited balance sheet and profit & loss account for last 3 financial years including current FY i.e., starting from 2018-19, 2019-20, 2020-21 & 2021-22.
- d. Copy of PAN
- e. The bidder must be an Internet Service Provider/Unified Licensee with (ISP) or NLD Authorisation/ Mobile Network provider/ Telecom operator/ other Company having own telecom network and possess a valid Telecom License/permission/clearance from the concerned Licensing Authority i.e., Dept of Telecom, Govt. of India for the intended telecom business envisaged by utilizing APSFL dark fibers. Bidder has to submit document in support of the same.
- f. The bidder has to furnish the documents in support of experience in providing telecom services or having telecom network for its own use.

If any bidder does not fulfil the above (i), (ii) conditions, his/their BID will be disqualified.

2. **Schedule of Requirements:**

The schedule of requirement is given in the SECTION - I

3. **Procedure for bid submission**

- i) The Bids should be in the prescribed form, which can be obtained from e-procurement platform from the date of electronic publication up to the time and date indicated in the Bid notice. The intending bidders would be required to enroll themselves on the e-procurement market-place tender.apcprocurement.gov.in. Those contractors who register themselves in the e-procurement market place can download the Bid schedules free of cost. The bidder shall authenticate the bid with his digital signature certificate (DSC) for submitting the bid electronically on e-procurement platform **and the bids not authenticated by Digital Signature Certificate (DSC) of the bidder**

will not be accepted on the e-procurement platform following the is to be contacted.

In case of consortium, the lead Partner has to enroll on the e -procurement market place.

- ii) Intending bidders can contact office of the APSFL for any clarification / information on any working day during working hours.
- iii) The bidders who are desirous of participating in e - procurement shall submit their technical bids price- bids etc., in the standard formats prescribed in the Bid documents. The bidders should invariably upload, all the documents mentioned in the Check List, in the e-procurement in support of their eligibility and qualifying requirements. The bidder should load scanned copies of all relevant certificates. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness / authenticity.
- iv) Technical bid evaluation of the bidders would be done on the basis of certificates/ documents furnished by the bidder against the qualification criteria as per Clause 3 (i) and (ii).
- v) The Bidders shall invariably upload the scanned copy of EMD. The Bidder shall furnish the original of the same either personally or through courier or by post within the stipulated time specified by the APSFL Corporate Office, Vijayawada.
- vi) The bidder shall invariably furnish the following securities / payments before entering into agreement either personally or through courier or by post and the receipt of the same with in the stipulated time shall be responsibility of the bidder. Department will not take any responsibility for any delay or non-receipt.
 - a) The Original PBG.
 - b) The bidder shall furnish original of all documents / certificates / statements uploaded by him whenever asked by the APSFL.
 - c) The bidder shall furnish their company brochures, technical write-ups and printed materials if any.

4. General Terms and Conditions:

- i) Bids are invited on the e-procurement platform for the above-mentioned scope, from the firms eligible.
- ii) EMD only in the form of BG payable at Vijayawada, issued from any Nationalized/Scheduled Bank, Vijayawada to be valid for a period of 180 days. Scanned copy of BG/FDR towards EMD shall be uploaded with the bid's originals must be submitted by successful bidder to APSFL through registered post / courier / in person before placing order.
- iii) Bid Processing Fee: Bidder shall submit a bid processing fee in the form of DD for an amount of Rs.50,000/- (Non-Refundable).
- iv) The bidder is subject to be disqualified, if he is found to have mislead or furnished false information in the Forms / Statements / Certificates submitted in proof of qualification requirements and any record of abandoning of work, not fulfilling contractual obligations in earlier contracts, inordinate delays in completion of works, litigation history, financial failures or participating in the previous Bidding for the same work and quoting unreasonably low price.
- v) Even while execution of the contract, if it is found that the bidder had produced false/fake certificates of experience, he will be black listed and the contract will be terminated and his Bid security will be forfeited and contract will be carried out through other agency at his cost and risk.

- vi) **a. Transaction fee:** The participating bidders have to pay transaction fee of 0.03% on Quoted value with a cap of Rs 10000/- (Rupees ten thousand only) for all tenders with Quoted value up to Rs. 50 Crores plus GST @ 18%, and Rs.25000/-(Rupees Twenty Five thousand only) plus GST @ 18% for tenders with Contract Value/Quoted value above Rs.50.00 crores on line payment gateway with any master/visa credit card issued by any Bank and through Net Banking facility (direct debit) with AXIS/ICICI or HDFC Banks at the time of bid submission. Submission is mandatory as per GO Ms. No.13. Payment of transaction fee through DD will not be accepted".
- b. Corpus Fund:** The successful bidder shall pay an amount equivalent to 0.04% of Quoted value with a cap of Rs. 10,000 (Rupees ten thousand only) for all tenders with Quoted value up to Rs. 50 Crores and Rs.25000/- (Rupees Twenty-Five thousand only) for tenders with Quoted value above Rs.50.00 crores on e-Procurement platform before entering into agreement/issue of purchase orders, towards e-Procurement fund in favour of Managing Director, APTS, Vijayawada through the agreement authority.
- vii) In case of discrepancy with Bid conditions in the Bid document and NIT, the condition in the Bid document prevails.
- viii) **Note:**
 - a. Any other condition regarding receipt of Bids in conventional method appearing in the Bid documents may please be treated as not applicable.
 - b. The bidder is to upload the information on e-procurement platform. Improper uploading documents/certificates (i.e., not possible to download) shall not be taken into consideration.
 - c. The firm should upload the documents duly signing each and every paper.

5. INSTRUCTIONS TO BIDDERS

APSFL invites bids on e-platform in two parts for the leasing of the dark fibers indicated in the "Schedule of Requirements" during the period, for which dates and time specified in the Notice Inviting Tender (NIT), and will be opened by (him) or his nominee at the Office on the date and time mentioned in the NIT.

- i) The intending Bidders required to enroll themselves on the 'e'-procurement market place at www.tender.apecurement.gov.in
- ii) The Bids should be in the prescribed available on e-procurement platform that can be downloaded free of cost from the website www.tender.apecurement.gov.in
- iii) The dates stipulated in the Bid notice i.e., NIT are firm and under any circumstances they will not be relaxed unless officially changed.
- iv) The Bidder should upload scanned copies as specified in checklist and all enclosures required for the schedules and Appendices. Bidders should produce the original of Bid Security and all other documents for verification if asked by the Competent Authority within 3 (Three) days.
- v) The successful Bidder is expected to lease the Dark Fibers for a minimum period of Fifteen (15) years as specified in the NIT/ Schedule of Requirement.

6. Bidders / Firms ineligible to Bid

- i) A retired officer of the Govt. of AP or Govt. of India executing software resource services is disqualified from Bidding for a period of two years from the date of retirement without the prior permission of the Government.
- ii) The Bidder who has employed any retired officer as mentioned above shall be considered as an ineligible Bidder.
- iii) The Bidder himself or any of his employee is found to be Gazetted Officer who retired from Government Service and had not obtained permission from the Government for accepting the Firm's employment within a period of 2 years from the date of his retirement.
- iv) The Bidder or any of his employees is found at any time after award of contract, to be such a person who had not obtained the permission of the Government as aforesaid before submission of the Bid or engagement in the Firm's service.

Note:

- vi) The companies which are blacklisted by any other utility and whose promotor's firms or companies were already blacklisted/debarred by any other utility, No work/contract/order will be awarded/placed to companies which are blacklisted by any other utility and whose promoter's firms of companies were already black listed/debarred by any other utility. Bidders have to furnish a declaration/under taking in this regard along with the bid. Bids without this declaration are liable for rejection.

7. Mandatory Requirements of the Bidders

- i) The Bidder shall furnish the following particulars and supported documentary evidence shall be uploaded: Attested copies of documents relating to the Registration of the firm, , GST Registration, Latest Income Tax Clearance certificate / Latest IT return and PAN number from IT Department etc.
- ii) **Technical Expertise:** To respond to this criterion, submit the required experience details in form of experience certificate Format - 3 as a part of the document to be submitted.

A search may be undertaken to verify that an applicant is a bona-fide registered company or business. Applicants may be required to provide evidence of the legal entity by providing a copy of an official document such as:

1. Company/Firm registration
 2. Any registration document viz. GST, Work license for execution of the works under the scope.
- iii) The Bidders should full fill all the qualifying requirements of the technical bid for opening of the price bid.
 - iv) Even though the Bidders meet the above qualification requirements, they are liable to be disqualified / debarred / suspended / blacklisted if they have:
 - a) Furnished false / fabricated particulars in the forms, statements and/annexures submitted in proof of the qualification requirements and/or,
 - b) Not turned up for entering into agreement, when called upon within the time specified in the Letter of Acceptance (LOA).
 - c) Litigation history or financial failures etc.,

- d) Participated in the previous bidding for the same work and had quoted unreasonably low price.
- e) A history of criminal record in which the Bidder is involved if any.
- f) History of litigation with Govt. during the last 5 years in which the Bidder is involved.
- g) Bidders should specifically indicate whether their firm has been banned/blacklisted/debarred by any Govt. department/undertaking or any power utility for non-performance/malpractice or due to any reason. Bids of bidders who are banned/black-listed/debarred will be treated as non-responsive

h) **One Bid per Bidder**

Each Bidder shall submit only one Bid. If a Bidder submits more than one Bid will cause dis-qualification of all the Bids submitted by the Bidder.

i) **Cost of Bidding**

The Bidder shall bear all costs associated with the preparation and submission of the Bid and the Bid inviting authority will in no case be responsible and liable for those costs.

8. Clarification of Bidding Documents

Clarification of Bidding Documents: A prospective Bidder requiring any clarification of the bidding documents may notify the APSFL in writing or by e-mail at the APSFL's address. The APSFL will respond in writing / email to any request for clarification of the bidding documents, which it receives not later than fifteen (15) days prior to the deadline for the submission of bids. Written copies of APSFL's response (including an explanation of the query but without identifying the source of enquiry) will be put on e-procurement platform.

9. Amendment to Bidding Documents

- i) At any time prior to the deadline for submission of bids, the APSFL, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the bidding documents through an amendment.
- ii) All such amendments also would be made available on the e-procurement platform/ website of APSFL and such amendments will be binding to all the prospective Bidders.
- iii) In order to allow prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the APSFL, at its discretion, may extend the deadline for submission of the bids.

10. PREPARATION OF BIDS

i) **Language of Bid**

The bid prepared by the Bidder including all correspondence and documents relating to the bid exchanged by the Bidder and the APSFL, will be in English.

ii) **Cost Associated with Bidding**

The Bidder will bear all costs associated with the preparation and submission of its bid, and the APSFL, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

- iii) Bidders have to pay a transaction fee @ 0.03% of Quoted value with a cap of Rs.10,000/- for all leased links with Quoted value up to Rs.50.00 Crore and Rs.25,000/- for all the leased links with Quoted value above Rs.50.00 Crore, at the time of bid submission electronically.
- iv) Transaction Fee & other charges shall be paid by either through Credit Card or Debit Card.
- v) Bidders have to pay 'GST' as levied by Government of India on transaction fee, electronic payment gateway charges.
- vi) Successful bidders shall pay 0.04% of Quoted value to APTS towards e-procurement fund. Bidders shall obtain digital certificates from APTS.

11. Documents Constituting the Bid

- i) The Bid comprises the following.
 - (a) Technical Bid
 - (b) Price Bid
- ii) Mandatory requirements and supporting documents [to be uploaded by the Bidder]
 - Documentary evidence establishing the bidder's eligibility as per Volume-II, clause -3 (i) & (ii). The Bidder should submit the technical and commercial bids in complete form without any deviations on e-procurement platform.

12. Bid Prices

- i) The prices quoted shall be FIRM.
- ii) **Variable** prices & Price Variation is not applicable.

13. Taxes

- i) A bidder will be entirely responsible for quoting the correct taxes, license fees, etc., he/Firm has to incur until completion of the contract. For the purpose of evaluation, the bidder should clearly indicate the IGST (in case of local Firm's applicable CGST+SGST) and any other taxes and levies payable in the respective columns provided in the Commercial form on e-procurement platform. Failure to furnish the details as prescribed in the price schedule will be loaded as indicated in the evaluation criteria.
- ii). If the rates of statutory levies assumed by the Bidder are less than the actual rates prevailing at the time of bidding, the APSFL will not be responsible for such errors. If the rates of statutory levies assumed by the Bidder are later proved to be higher than the actual/ correct rates prevailing at the time of bidding, the difference will be passed on to the credit of the APSFL.

14. Statutory Variations

Any variation up or down in statutory levy or new levies introduced after **Tender calling date** under this specification will be to the account of APSFL provided that in cases where contract period is not adhered to by the Firm and there are upward variation/ revision after the agreed contract period, the Firm will bear the impact of such levies and if there is downward variation / revision the APSFL will be given credit to that extent.

Any statutory levies (example GST or any other levies if introduced) shall be paid to the Government.

Prices to be quoted and paid in Indian Rupees Only.

15. Quantity to quote

Bidders are free to choose their route and bid accordingly. However, Bidder should note that the overall route kms **should not be less than 1000 km** in all respect otherwise the bid will be outrightly rejected.

16. EMD

- i) The bidder shall furnish EMD, as mentioned in Volume – I (NIT). The bidders may furnish a scanned copy of B.G./FDR as per the proforma attached should invariably uploaded along with the bids.
- ii) Existing permanent bid security and existing exemptions for bid security have been withdrawn hence will not be accepted.
- iii) **Submission of EMD by way of NEFT/RTGS money transfer, cheque, DD, cash, money order, call deposit, existing permanent bid security and existing exemptions for bid security will not be accepted and will be considered as disqualification.**
- iv) **Requests for exemption from payment of EMD will not be entertained in any case.**
- v) **Any bid without EMD will be rejected by the APSFL.**
- vi) The successful bidder's bid security in original shall be furnished, before issuing LOA and the same will be discharged after the award of contract.
- vii) **The Bid Security may be forfeited if a Bidder:**
 - A. Withdraws its bid or alters its prices during the period of bid validity specified by the Bidder, or
 - B. Does not accept the correction of errors pursuant to Clause No.24 (ii) or
 - C. In the case of a successful Bidder, if the Bidder fails to sign the contract in accordance with Clause No.4 of Contract section in Volume-III.
- viii) Bids without Bid Security will be rejected and bidder will run the risk of being banned.
- i) Bids will remain valid for the period of 180 days from the date of bid opening prescribed by the APSFL. A bid valid for a shorter period will be rejected.
- ii) In exceptional circumstances, the APSFL may solicit the Bidder's consent to an extension of the period of validity. The request and the responses there to will be made in writing (or by e-mail). The Bid Security Bank Guarantee provided under Sl. No 10 of NIT shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security.

17. Performance Security

The successful Bidder shall have to submit a Performance Security within 30 days from the date of issuance of Letter of Award (LoA). Extension of time for submission of beyond 30 days and up to 60 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 30 days, i.e. from 31st 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.

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 60 days 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.

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% (five percent) for the excess value over the original contract value shall be deposited by the Bidder.

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.

Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Security be encashed. 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.

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 contract period as per RFP. However, no interest shall be payable on Performance Bank Guarantee.

18. Tax Clearance Certificates

Copies of Income Tax and Turnover Tax certificates for the latest 3 years period from the appropriate authority will invariably be enclosed to the bid. In the case of proprietary or partnership firm, it is necessary to produce the certificate/ certificates for the proprietor or proprietors and for each of the partners as the case may be. If the Bidder has already produced the certificate during the calendar year in which the bid is made, it will be sufficient, if particulars are given.

19. Price bid

- a) The rates should be quoted in the attached Format-1 in volume-II of sample forms. The rates are to be quoted for fiber pair per km per Annum basis. **The offer shall be compared on the basis of total revenue to the APSFL.** The rates quoted shall be in Indian currency only.

Quotations in any other currency shall be rejected. The column 'Total' should also be correctly filled in.

- b) The prices quoted and other conditions specified in the Tender have to be considered as firm for acceptance for a period of 15 years from the date of agreement. Offers with lesser validity are liable to be rejected.
- c) Successful Bidders finally selected will be invited to enter into agreement to this effect.
Leasing of fibers shall be through a Lease Agreement to be signed between the Party, hereinafter referred to as Lessee and APSFL.

20. SUBMISSION OF BIDS

i) Procedure for Submission of Bids

- a) Bids should be in the prescribed form, which can be obtained from 'e-procurement' platform from
the date of electronic publication up to the time and date indicated in the Bid notice. The intending bidders would be required to enroll themselves on the 'e-procurement' market-place
those bidders who register themselves in the 'e-procurement' market place can download the Bid specification and the Bid schedules. The bidder shall authenticate the bid with his 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.
- b) Intending bidders can contact office of the APSFL, Vijayawada for any clarification/ information on any working day during working hours.
- c) The bidders who are desirous of participating in "e-procurement" shall submit their technical bids, price bids etc., in the standard formats prescribed in the Bid documents, displayed at "e" market place. The bidders should invariably upload the all the documents, showing the check list, in the "e" market place in support of their Technical bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/ authenticity.
- d) **If any bidder uploads the Bid without paying EMD, he will be blacklisted. Similarly, if any of the certificates, documents etc., furnished by the Bidder are found to be false/fabricated/bogus, the Bidder will be blacklisted and bid security will be forfeited.**
- e) Telegraphic quotations and quotations by fax will not be entertained under any circumstances. Clarification, amplifications, and / or any other correspondence from the Bidder subsequent to the opening of bid will not be entertained.

The Bidders are advised to ensure that their bids are uploaded in complete shape at the first instance itself.

ii) Deadline for Submission of Bids

The APSFL may, at its discretion, extend the deadline for the submission of bids by amending the bidding documents in which case all rights and obligations of the APSFL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

iii) Modification and Withdrawal of Bids

- a) No bid may be modified after the deadline for submission of bids.
- b) No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified. Withdrawal of a bid during this interval may result in the forfeiture of its Bid Security.

21. COMMERCIAL FORM: -

The bidder shall complete the commercial form appropriately on e-procurement platform. Further, the **bidders are requested to quote the Basic Price including 10% maintenance charges** in ‘‘Basic Price’’ column and **the quantity arrived as per step1 in page No. 23. shall be entered** in ‘‘Offered Quantity’’ column and GST shall be entered in Supplier Cost Component, for the district bidder wants to quote.

22. OPENING AND EVALUATION OF BIDS

i) Opening of Bids by the APSFL

- a) APSFL will open such Bid where in the Technical and Financial requirements are found to be adequate as per qualification criteria mentioned at 1(i) and (ii), those Price Bids will only be opened.
- b) If the Technical & Financial requirements are found to be inadequate, the ‘Price Bid’ of such unqualified Bidders will not be opened.

23. CLARIFICATION OF BIDS

- i) During evaluation of the bids, the APSFL may, at its discretion, ask the Bidder for a clarification of its Bid. The request for clarification and the response will be in writing, and no change in the prices or substance of the bid will be sought, offered, or permitted.
- ii) ‘‘No clarifications shall be asked/ entertained regarding Qualification Requirements of the Bidder. Tenders shall be evaluated with uploaded documents only in the e-procurement website’’.

24. Preliminary Examination

- i) The APSFL will examine the bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- ii) The APSFL may waive any minor informality, nonconformity, or irregularity in bid which does not constitute leasing terms and conditions a deviation, provided such waiver doesn't prejudice or affect the relative ranking of any Bidder.
- iii) Prior to the detailed evaluation, the APSFL will determine the substantial responsiveness of each bid to the bidding documents. For the purpose of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without leasing terms and conditions deviations.
Deviations from or objections or reservations to critical provisions, such as those concerning Bid Security, and Taxes and Duties will be deemed to be a leasing terms and conditions deviation. The APSFL's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- iv) If a bid is not substantially responsive, it will be rejected by the APSFL and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

25. Evaluation and Comparison of Bids

(i) Evaluation Procedure

Evaluation will be done in two stages

Stage-1: The documents submitted by all prospective bidders will be scrutinized and check for the eligibility as per the qualifying requirements.

Stage-2: Price bids will be opened in this stage for the bidders who are qualified in stage-1 as per the eligibility/qualification requirements.

NOTE: The Bidders are requested to upload the break-up details of the links, district wise, bidder wants to quote, as per Format-2 without fail.

The above work will be awarded to the bidder(s) who quotes the highest amount all prospective bidders.

The offer shall be compared on the basis of total revenue to the APSFL.

- i) The APSFL will evaluate and compare the Technical & Financial Turnover (Part-I), which have been determined to be substantially responsive. In case the Technical & Financial requirements are found to be adequate such bids will be made qualified. Price Bids of the qualified bidders will only be opened subsequently.
- ii) The APSFL's evaluation of a bid will take into consideration one or more of the following factors
 - a) All the bids, which are opened and considered for evaluation, will be checked for qualification requirements in respect of technical and commercial aspects. Such of the bids, which do not meet the qualification requirements, will not be evaluated further. The bid is to be checked for its conformity to the technical specification. If it does not meet the technical specification, the Bid will not be evaluated further.
 - b) The main criteria is maximum revenue generation to APSFL.
 - c) The bid will be rejected for the following reasons:
 - A. Not in the prescribed form
 - B. Insufficient Bid Security or no Proof of Bid Security
 - C. The bidder is a vendor/Firm who is banned from further business transactions and the period of ban is still in force.
 - c) Further, the APSFL will enquire from the bidder in writing for any clarification of the bid. The response of the bidder should also be in writing. However, no change in the prices or substance of the bid will be sought, offered or permitted.
 - d) Bids will be examined for completeness and for any computational errors.
 - e) Arithmetical errors will be rectified on the following basis.
 - A. Where there is a discrepancy between the one pair fiber price and total price for all fibers quoted, the one pair fiber price will prevail and the total price for number of fiber pairs quoted will be corrected accordingly.
 - B. Where there is a discrepancy between words and figures, the amount in figures will prevail.
 - C. If there is a discrepancy between the soft copy and the hard copy, the soft copy will prevail.
 - D. Failure on the part of the bidder to agree to the above corrections will result in rejection of his offer and forfeiture of his Bid Security.

- f) It will be ensured that the required sureties have been furnished and that the documents have been properly signed.
- g) The APSFL's evaluation of a bid shall take into consideration one or more of the following factors
 - A. Deviations in payment schedule from that specified in the general terms and conditions of the contract and technical deviations.
 - B. Other specific criteria indicated in the Bidding documents.
 - C. The Price quoted in e-procurement portal will only be evaluated.
 - D. However, APSFL has the discretion to select the bidder based on the number of leased links (quantity) quoted and based on the highest revenue generated to APSFL.
 - E. Incase, work has already been awarded on nomination basis, the highest bid awarded to the bidder shall be matched w.e.f. date of issue of award.
 - F. At any cost, quoted amount should not be less than the estimated amount

For the purpose of evaluation net cost will be arrived by adding all elements to the Basic Price (excludes maintenance charges) , 10% Annual Maintenance Charges and GST as applicable from time to time.

- h) In addition, any variation up or down in taxes / new levies introduced subsequent to bid opening and before award will be considered.
- i) The following criteria will be adopted for taxes:
 - A) It is the responsibility of the bidder to quote all taxes correctly without leaving any column unfilled. Where taxes are not applicable the bidder should enter "NA". If no tax is leviable the same may be entered as "NIL". If any column is left blank or filled vaguely like "as applicable", the same will be loaded with the maximum of the other eligible Bids.
 - B) Where there is an exemption of GST, the documentary evidence to that effect will be enclosed by the Firm.
- j) The bidders for fiber leasing shall invariably possess the TIN No. and PAN No. and the same should be furnished for the bids above Rs.5.00 lakhs.
- k) Prior to the detailed evaluation, the responsiveness of each bid will be determined. A substantially responsive bid is one that conforms all the terms and conditions of the bidding documents without deviations. For this purpose, superscription, qualification requirement, bid security, validity, payment term, price schedule, taxes and duties will be deemed to be the critical provisions and deviations in any one of these items will be deemed to be a Bid deviation.
- l) The APSFL will waive any minor informality, non-conformity or irregularity in the bid which does not constitute a leasing of fiber deviation, provided such waiver does not affect the relative ranking of any bidder. The APSFL will clearly indicate in the bid specification the methodology for evaluation of bids.
 - A. Bid price, which will include all,
 - B. Deviations in payment schedule from that specified in the general terms and conditions of the contract.
 - C. Other specific criteria indicated in the Bid Specification.
- m) Any statutory variations of taxes and new levies imposed after opening of the bid and before award of the contract will be taken into consideration.
- n) Selection of bidder among the highest & equally quoted tenderers will be in the following order:

- i) The bidder whose overall quoted prices is highest will be selected.
- ii) In case the above is also same the tenderer whose annual turnover is more will be preferred.
- iii) In case the above two conditions also similar the successful bidder will be decided based on the total revenue generated to APSFL.
- iv) The above work shall be awarded to bidder who quotes the highest amount among all prospective bidders. The offer shall be compared on the basis of total revenue to the APSFL with a condition that offered price shall not be less than Rs. 12,543/- (excluding 10% maintenance charges) + 10% AMC (i.e. Rs.1,254/- estimated value)+ GST per pair per km per annum for the first year of the contract.
- v) In case if more than one bidder quoted equal price for same fiber pair / fiber pairs in OPGW line then it will be decided based on the highest quantity (no of KM in the state) offered by the Bidder with a condition that offered price shall not be less than Rs.12,543/- per fiber pair per km per annum for the first year of the contract.

In case if more than one Bidder quoted price for same fiber pair / fiber pairs in OPGW line, it is the sole discretion of APSFL to award the work / Contract to the bidder; mere becoming of H1 (Highest quoted) bidder does not automatically entitle any rights to the bidder for award of contract. The APSFL reserves the right to reject any bid / bids on account of past performance in the earlier awarded works at any stage of evaluation of the bids.

26. CONTACTING THE APSFL.

- i) From the time of the bid opening till the time of contract awarding, if any Bidder wishes to contact the APSFL on any matter related to the bid, it should be done so in writing.
- ii) Any effort by a Bidder to influence the APSFL on its decisions for bid evaluation, bid comparison, or contract award will result in rejection of the Bidder's bid.

27. AWARD OF CONTRACT:

The APSFL will award the contract to the successful Bidder(s) whose bid has been found Technically qualified as per the Tender conditions and whose bid price is highest quoted one.

However, it is not binding on APSFL to accept the Highest quoted or any other Bid(s). APSFL reserves the right to select the Bidder(s).

28. APSFL's Right to vary Quantities at the time of Award

The APSFL reserves the right at the time of contract award, to increase or decrease the quantity of dark fibers originally specified in the Annexure -1 as per the provisions available with APSFL.

29. APSFL's Right to Accept Any Bid and to Reject Any or All Bid

The APSFL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to awarding of contract, without thereby incurring any liability to the affected Bidder or Bidders.

Any additional length of fiber pairs as and when required by the awarded party shall be provided by APSFL, subject to availability based upon the highest rates finalized for that section in present contract till three years from the date of contract execution.

30. NOTIFICATION OF AWARD

- i) Prior to the expiration of the period of bid validity, the APSFL will notify the Successful Bidder in writing through a registered letter or by an e-mail, that the bid has been accepted.
- ii) This letter (hereinafter and in the Conditions of Contract called “Letter of Acceptance”) will indicate the sum of the amount to be paid to APSFL by the bidder in consideration of the contract, Contractor as prescribed by the Contract (hereinafter and in the Contract called the “Contract Amount”).
- iii) The notification of award will constitute the formation of the Contract.
- iv) Upon the successful Bidder's furnishing all the original documents the APSFL enters into contract with successful Bidder/ Bidders.
- v) The successful Bidder will have to predefine the Bank Account details after receipt of Letter of Acceptance (LOA) and before entering into contract for electronic transfer of the payment.
- vi) EMD will be refunded to all the unsuccessful bidders. For, the successful bidder, EMD shall be refunded on submission of the 3% PBG of the awarded contract value.
- vii) The declaration form is to be given in the Format -8 regarding relatives working in any of the Power utilities of Andhra Pradesh.

31. Payment Terms and Conditions

- i) The amount shall be paid by successful bidder on annual basis in advance for every leasing year within 20 days from the date of issue of invoice by APSFL. However, the penalties are computed on monthly basis. The penalty if any, as per the penalty clause imposed to bidder by APSFL
- ii) All the payments should be through electronic mode of payment /RTGS/NEFT to APSFL.
- iii) For belated payment, interest @maximum MCLR (Marginal cost of funds-based lending rate) of State bank of India per annum proportional to the actual number of days of delay from due date will be charged extra.
- d) The charges mentioned in this offer are exclusive of GST.
- e) This agreement will valid for 15(Fifteen) years.
- f) The amount is to be paid by bidder through NEFT/RTGS to following account.

Name of the Account: Andhra Pradesh State FiberNet Limited

Name of the Bank: Union Bank of India

Branch Name &Address: Main Branch, RR Apparao Street, Vijayawada, Andhra Pradesh

Current A/c. No.: 060611100003785

IFS Code: UBIN0806064

MICR Code: 520026016

32. General Term & Conditions

- The bidder shall have the option to install, operate and maintain its equipment at Colocation(s) premises as per the scope subject to Colocation charges. However, space availability for Colocation for bidder shall be the based on the feasibility report of APTRANSCO. APTRANSCO shall arrange necessary power supply to the equipment installed by the bidder.
- Tapping of fibers will be at the APTRANSCO substation locations through the FODP (Fiber Optic Distribution Panel) at communication rooms attached to APTRANSCO substations. External cables shall be taken outside APTRANSCO premises through the route and medium specified by APTRANSCO. All the cable entries shall be sealed against intrusion of pests. All additional works will be at the cost of bidder.
- The last mile connectivity i.e APTRANSCO OPGW tapping point (FODP) to bidder location is not in the scope of APTRANSCO but it is under the scope of the bidder.

- Breakdowns in the last mile connectivity or at the equipment termination points will not be in the scope of APTRANSCO.
- The preventive and emergency maintenance of leased Dark Fibers shall be carried out by APTRANSCO. For carrying out such works, both APTRANSCO and APSFL shall extend reasonable help to the bidder.
- APTRANSCO shall be entitled to a maximum of 4 hours of Planned Outages with maximum four (4) Maintenance Windows per year, thus totalling 16 hours of outages per year. Such downtime shall not be treated as part of downtime for Service Level calculations. APTRANSCO shall give minimum 48-hour notice in case of any such planned outages.
- The Parties agree that the obligations on APTRANSCO under this RfP shall become effective only from the day the routes and time period of the Optical Fiber that bidder shall take have been mutually agreed & till the time it is used for the purpose.
-
- The operation and maintenance of OPGW Cable shall be under the APTRANSCO scope. APTRANSCO shall grant access to the bidder to enter into APTRANSCO substation premises for installation, testing, Operation and Maintenance (O&M) activities of their equipment.
- APSFL reserves the right to deny lease of fiber to bidder for any reason including non-availability of fiber, any techno commercial and legal constraints.
- All the fibers used shall comply with G.652, and the overall loss including the splicing loss shall be as per the following specification:
 - Max attenuation @ 1550nm: $0.23\text{db/km} + 0.05\text{db} * \text{Planned Splice} + 0.5\text{db} * \text{connector}$.
 - ii. Max attenuation @ 1310nm: $0.35\text{db/km} + 0.05\text{db} * \text{Planned Splice} + 0.5\text{db} * \text{connector}$
 - iii. As averaged over 100 km of Optical Fiber.
- There shall be restricted entry to APTRANSCO premises. Identity cards for two of the personnel of the bidders shall be issued for the maintenance of their equipment. However, during construction of the room and installation of their equipment, temporary passes shall be issued by APTRANSCO.
- On completion of Lease Period, the bidder shall withdraw all installations and hand over the site in clear condition within 90 business days from completion of Lease period.
- The bidder shall obtain no dues certificate from APTRANSCO on completion of Lease period, which shall not be withheld by APTRANSCO. In case no dues certificate is not issued within 60 business days from completion of Lease Period by APTRANSCO, it shall be deemed that bidder has no dues against APTRANSCO and shall be absolved of any liability against APTRANSCO.
- APTRANSCO will provide alternate dark fibers at the same tapping points only. The bidder should ensure sufficient power budget (at least 5 dB margin) in the terminal equipment as there is a chance of increase/decrease in fiber lengths.
- The lease agreement between APSFL & bidder shall be subject to the rules and regulation of Govt. of Andhra Pradesh / any other regulator from time to time. All statutory approvals are to be obtained by the bidder at their cost.
- Any license fees, Taxes, Duties in respect of user services of the leased facility to the Govt. of India / Govt. of Andhra Pradesh /any other regulator (“Statutory Duties”) should borne by the bidder. The bidder should agree and acknowledge that they shall be responsible for their Statutory Duties.

- The bidder at any point of time during tenure of agreement shall not assign sublet / transfer its rights to any other third person or entity without prior approval / permission of APSFL,
- APTRANSCO shall not be liable to pay any compensation to bidder in case of communication breakdown due to shutdown / breakdown of power lines.
- In case the APTRANSCO, due to load growth and other reasons re-design/re-engineer/re-route of its transmission lines entailing re-designing/re-engineering/re-routing of the optical fiber cables on APTRANSCO's transmission lines, then the APTRANSCO shall provide an alternate route/optic fiber for bidder, solely at its own cost only for OPGW portion excluding last mile connectivity. APTRANSCO shall give sufficient advance intimation to the bidder and shall ensure smooth changeover so that non- availability of leased OPGW links is avoided. The change over time should not be treated as non-availability time as long as agreed planned maintenance.

33. Maintenance Levels Committed:

APTRANSCO shall endeavor to maintain the dark fiber on the above said network provided by APTRANSCO to sub-lease holder 99.0% of availability for OPGW, on monthly basis, with the exception of Force Majeure, Planned Outages and MTTR clauses.

- a) The uptime percentages will be calculated up to two decimal points, e.g. 99.99%.
- b) The downtime will be calculated in Hours, rounded up to the two decimal points
- c) The Penalty will be applicable only to individual links separately. Thus, if the availability of only particular A – B link goes below 99 %, the penalty will be imposed only for this link.
- d) The monetary value of the penalty on monthly basis shall be computed by taking / evaluating the compounded down time on a pro-rata basis from the monthly service fee.

34. Calculation of % Uptime

a. The link availability in terms of % uptime is calculated as below and then rounded up to two decimal points:

% Uptime =

$$\frac{((\text{no.of days in a month} * 24 \text{ hours} * 60 \text{ min.}) - \text{link down time(in mts)}) * 100}{(\text{No.of days in a month} * 24 \text{ hours} * 60 \text{ min.})}$$

35. Maximum Time to Respond/ Mean Time to Resolve (MTTR)

Network Component	Maximum Time to Respond	Mean Time to Resolve
APTRANSCO Dark Fiber Network	30 Minutes	6 hours

If the problem is resolved within the MTTR (6 hours) in a section, the MTTR will not be considered as outage time. If the outage is beyond 6 hours in a month in a particular section, the interruption time beyond 6 hours will be treated as outage time in that section for a month.

36. IMPOSITION OF PENALTY

The amount of monthly penalty, if any, shall be deducted from the annual invoices by the bidder while making payments to APSFL.

Maximum monthly Penalty to be levied shall not exceed 70% of the Monthly lease charges for a particular link.

As payment term is Annual in advance, APSFL will allow the bidder to adjust applicable SLA credit against subsequent year annual advance payment

37. TERMINATION RIGHTS

In the following events the dark fibers leased to bidder shall be liable to get disconnected / disabled by APTRANSCO. APSFL is the authorized person to issue disconnection notice.

- a. The bidder transfers its rights to any other entity without prior intimation/approval of APTRANSCO, except allowed assignment.
- b. The bidder sublets assets to any agency, whomsoever without the permission of APTRANSCO.
- c. The bidder damages APTRANSCO's system owing to malfunctioning/improper use/non-standard construction of the leased OFC and connected system of the lease holder.
- d. The bidder uses the leased dark fibers for any illegal and unlawful activity.
- e. Rules and regulations implemented by Government of India/Government of Andhra Pradesh /any regulation from time to time demands so
- f. When the Grid condition so warrants.
- g. The bidder has engaged in corrupt or fraudulent practices.

38. Breach of contract:

If there is a breach of contract by any party and the breaching party fails to rectify the breach within 15 days on request of the other party, the agreement stands terminated to the extent of the breaching party, without prejudice to any other rights available to the non-breaching Party under this Agreement/ the said Agreement or law, but shall survive and be binding on the other parties.

39. FORCE MAJEURE

Force Majeure Event” means an event which is beyond the reasonable control of the Party liable to effect performance and shall include but not be limited to an act of God, war, civil disturbance, requisitioning, change in laws or regulations, governmental or parliamentary restrictions, prohibitions or enactment’s of any kind, import or export regulations, exchange control regulations, breakdown of machinery, fire, under water cable cuts or accident, ship wrecks, non-availability of vessels or transport, drought, fire, flood, lightning, Tower collapses, epidemic or quarantine restriction, earthquake, severe storm, landslide or other natural event, freight embargo, trawler or anchor damage, damage caused by other marine activity such as fishing, marine research or marine development, or interruptions caused by construction activity of a third party, or act or omission of transporters.

Notwithstanding anything herein to the contrary, neither Party shall be liable for any delay or failure in performance of any part of this Agreement, to the extent such delay or failure is attributable to a Force Majeure Event. If either Party becomes aware of a Force Majeure Event which give rise to or which are likely to give rise to failure or delay on its part in performing its obligations in this Agreement, it shall, as soon as reasonably feasible, notify the other and shall inform the other of the period during which it is estimated that such failure or delay shall continue.

In the event of the occurrence of a case of Force Majeure Event continuing beyond a period of 30 business days. bidder shall have right to terminate the Agreement and APSFL shall refund payment on pro rata basis for the term not utilised by lease holder from date of such termination.

40. INCONSISTENCY WITH LAW

This contract is subject to statutory regulations in force & if any provision of this contract is inconsistent with such regulation, the agreement shall be modified accordingly. Such inconsistency is inclusive of any directions given by regulatory body/Government of India in present & in future. If any provision of this contract shall be held invalid, the remaining provisions hereof shall continue to be binding upon the Parties.

41. SYSTEM PROTECTION & SAFETY

Each party is responsible for the safe operation of its system & shall take all reasonable and necessary steps in its operation and implementation of this contract & to ensure that its respective equipment and network does not endanger the safety or health of employees or contractor, agents or customer of other party, damage, interfere with or cause any deterioration in the operation of the other parties' network

42. NOTICES

All notices required to be given under this contract shall be in writing and shall be addressed at the address indicated below or at such address as such party may indicate from time to time.

For APSFL:

Managing Director

III floor, NTR administrative block

Pandit Nehru bus station

Vijayawada-520001

43. ARBITRATION

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.

44. DISPUTE SETTLEMENT

If the disputes are not resolved by arbitrations then, As per provisions of Telecom Regulatory Authority of India Act, 1997 as amended from time to time, all and any disputes between the bidder and APSFL in respect of the subject matter of this contract shall be settled in Telecom Disputes Settlement and Appellate Tribunal or in such other judicial authority competent to settle such disputes

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

45. FORMATS

SECTION - I SCHEDULE OF REQUIREMENTS

SI. NO.	DESCRIPTION OF THE CONTRACT	CONTRACT PERIOD	AVAILABILITY OF OPGW DARK FIBERS
	LEASING OF DARK FIBRES OF OPGW LAID ON EHT LINKS OF APSFL IN ALL 13 DISTRICTS	15 YEARS	AS PER ANNEXURE-I

Note:

1. Prices shall be quoted on firm basis
2. Price per Fiber pair per kM per annum shall not be less than Rs.12,543/- basic price plus 10% AMC (Rs.1,254) plus GST extra as applicable from time to time.
3. Bidder shall quote for total length of a link.
4. The Bidder must upload the break-up details, given in format-2, of the quoted link, in PDF form on e- procurement without fail. The Bid without the breakup details will not be considered/evaluated.
8. Conditional discounts are not accepted.
9. Rental charges shall be paid by the Bidder, for installation of Terminal Equipment in the sub-station premises on yearly basis, as per.
10. Evaluation of the Bid will be done as per clause no.24 of Volume-II.
11. Responsibility for correctness of the information submitted in online bid lies with bidder. If any information furnished in the bid is proved to be false at a later date, the bid will not only be rejected but the bidder will be BLACKLISTED.

Sd/-
Managing Director

FORMAT-1: BID FORM

Dt./XX/2021

To
APSFL

Dear Sir,

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we the undersigned, offer for Leasing of OPGW Dark Fibers available on EHT lines of APSFL IN ALL 13 DISTRICT OF ANDHRA PRADESH. in conformity with the said bidding documents for the sum quoted by us or such other sums as may be ascertained in accordance with the schedule of prices attached herewith and made part of this Bid.

We undertake that if our Bid is accepted, to Lease the Dark Fibers, in accordance with the completion period specified in “Schedule of Requirement” i.e., for 15 years.

If our Bid is accepted, we will submit the Performance Bank Guarantee/Contract Performance Guarantee as per specification for the due performance of the contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid up to 180 days (for the Bid validity period) specified in clause No.18 of VOLUME- II and it will remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, will constitute a binding contract between us.

We understand that you are not bound to accept the Highest or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements as per Volume-II of the bidding document.

Dated:

Signature

FORMAT-2**CALCULATION SHEET FOR ARRIVING AT THE REQUIRED QUANTITY
AND AVERAGE PRICE****Details of the Route:**

Sl. No .	Name of the Link (As per Annexure-I) (a)	No. of km*(No. of Fiber Pairs Bidder wants to Quote. (b)	Lease Rate (for First year) per fiber pair per km per Annum (Rs.) (c)	10% Annual maintenance Charge (d)	Total Rs.= No. of Km* No of Fiber Pairs* Rate (c+d)
	TOTAL (Rs.)					
	Applicable GST(Rs.)					
	Grand Total (Rs.)					

(*) No. of km for any link should not be reduced.

For and on behalf of Bidder company
M/s.....

NOTE: Bidder shall upload the break-up details, in PDF form, and these details shall be uploaded in commercial (form) stage so that it could be viewed only after opening Price Bid. But not in PQ stage.

(*) The prospective Bidder shall quote for total length (km) of any link as per the Annexure-I

Rental charges, for installation of Terminal Equipment in the sub-station premises on **yearly basis**, for an amount of Rs.2,65,000/- per location (exclusive of GST) shall be paid by bidder.

Very Important Note to Bidders**DIFFERENCE IN e-PROCUREMENT LUMP SUM AMOUNT AND TOTAL OF
THE SCHEDULES:**

- Where there is a discrepancy between the total lumpsum rate quoted in the e-procurement platform web page and the total of the schedule submitted, the total lumpsum rate quoted in the e-procurement platform will govern for deciding highest quoted Bidder.
- After evaluating the schedules of H1 by taking into consideration the words and figures and multiplication and totalling mistakes.
- If the amount arrived is higher than the e-procurement lumpsum amount, the highest amount shall be taken for award of contract.
- If the amount arrived is less than the e-procurement lumpsum amount, the e-procurement lumpsum amount shall be taken for award of contract.

FORMAT -3
DECLARATION REGARDING CLEAN TRACK RECORD

To

APSFL,

Vijayawada-520 00.

Sir,

I/We hereby declare that my company has not been debarred / black listed as on Bid submission date by any State Government, Central Government, Central & State Govt. Undertakings / Organizations and by any other Government bodies / Organizations, and any other major Enterprise / Organizations in India for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices.

Yours faithfully,

[Signature of the Bidder]

Printed Name:

Designation:

Seal:

Date:

Business Address:

FORMAT-4

To
The
APSFL,
VIJAYAWADA-520004

Dear Sir,

Sub: Leasing of Spare Dark Fibers of OPGW installed in APSFL system-
General particulars of applicant-submission-reg.

1.0 Having examined the document for **Leasing of Spare Dark Fibers of OPGW installed in APSFL system**, I the undersigned, submit herewith the following information / data / documents:

A. Application format:

1	Name of the firm	
2	Full Address	
3	Telephone No. E-Mail	
4	Contact Person and Mobile No. E-Mail	
5	Purpose of leasing	
6	Copy of Internet Service License/Unified License (ISP or NLD Authorisation)Telecom License/permission/Clearance from the concerned licensing Authority i.e, Dept.of Telecom, Govt. of India up-loaded?	
7	Area/Circle where Telecom service is currently being provided by party	
8	Certificate in support of Experience up-loaded?	

For and on behalf of Bidder Company
M/s.....

FORMAT -5
EMD FORM

Whereas. (Hereinafter called "the Bidder") has submitted its Bid dated (date of submission of bid) for the providing.(name and /or description of the dark fiber leased links) (hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE.(name of bank) having our registered office

at.(address of bank) (hereinafter called "the Bank"), are bound unto.(name of APSFL) (hereinafter called "the APSFL") in the sum of _____for which payment well and truly to be made to the said APSFL, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____day of ____ 2020.

THE CONDITIONS of this obligation are:

1. If the Bidder
 - a) withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
 - b) does not accept the correction of errors in accordance with the Bid Specification, or
2. If the Bidder, having been notified of the acceptance of its bid by the APSFL during the period of bid validity;
 - (a)Fails or refuses to execute the Contract Form if required; orWe undertake to pay the APSFL up to the above amount upon receipt of its first written demand, without the APSFL having to substantiate its demand, provided that in its demand the APSFL will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including sixty (60) days after(Specification

Date) the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

.
(Signature of the Bank)

NOTE : This will be executed on a Rs.100/- non-judicial stamp paper.

FORMAT-6

PERFORMANCE SECURITY BANK GUARANTEE FORM

To
The
APSFL,
Vijayawada-520004

WHEREAS..... (Name of Lessee)
(hereinafter called "the contractor") has undertaken, in pursuance of the Contract No.....
dated....., 2021 for..... (Description of the work) (hereinafter
called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Lessee will furnish you
with a Bank Guarantee by a recognized Bank for the sum specified therein as security for compliance
with the Contract performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contract Guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the
Lessee, up to a total of. (Amount of the Guarantee in Words and Figures) and we
undertake to pay you, upon your first written demand declaring the Lessee to be in default under the
Contract and without cavil or argument, any sum or sums within the limit of..... (Amount of
Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand
or the sum specified therein.

This guarantee is valid until the. day of (Year).

Signature and Seal of Guarantors

.....

Date.2021.

.....

.....

Address:

.....

.....

NOTE: This has to be executed on a Rs.100/- non-judicial stamp paper by State Bank of India or
its associated Banks/ Nationalized Banks acceptable to the APSFL.

FORMAT -7
DECLARATION FORM

**UNDERTAKING TO BE GIVEN BY THE COMPANY / PARTNERSHIP FIRM ALONG WITH
THE TENDER REGARDING RELATIVES**

I, _____ representing
the

Company / Partnership Firm / Telecom Operator responding to the bid invitation by
the APSFL / APEPDCL / APSPDCL / APCPDCL vide Specification No.

_____ hereby sincerely and solemnly affirm and state as follows:

(STRIKE OUT THAT WHICH IS NOT APPLICABLE)

- (a) That myself or any of the representatives of my company / firm do not have any relatives as defined in the appended Annexure II in the APSFL /
- (b) That the following officers / employees of the APSFL / are related to me and to the representatives of my company / firm and their status in the APSFL / is as under:

Sl.No.	Name of the Officer Employee	Designation and Place of working	APSFL /	Relationship
1.				
2.				
3.				
4.				
5.				
6.				

It is certified that the information furnished above is true to the best of my knowledge and belief. It is hereby undertaken that in the event of any of the above information found to be false or incorrect at the later dated the APSFL / DISCOM is entitled to terminate the contract / agreement entered into besides recovering damages as may be found necessary, with due notice.

**Signature of the Authorized
Representative**

ANNEXURE -II

LIST OF RELATIVES

- | | | |
|--|--------------------------------------|-------|
| 1. Father | 14. Daughter's Husband | |
| 2. Mother (including step mother) | 15. Daughter's Son | |
| 3. Son (including step son) | 16. Daughter's Son's Wife | |
| 4. Son's Wife | 17. Daughter's Daughter | |
| 5. Daughter (including step daughter) | 18. Daughter's Daughter's Husband | |
| 6. Father's Father | 19. Brother (including step brother) | |
| 7. Father's Mother | 20. Brother's Wife | |
| 8. Mother's Mother | 21. Sister (including step sister) | |
| 9. Mother's Father | 22. Sister's Husband | |
| 10. Son's son | 23. Son's Wife's Father | } and |
| 11. Son's Son's Wife
their Siblings | 24. Son's Wife's Mother | |
| 12. Son's Daughter | 25. Daughter's Husband's Father | |
| 13. Son's Daughter's Husband | | |
| 26. Daughter's Husband's Mother | | |

FORMAT-8
FINANCIAL STATUS

Criteria	Sub Criteria	FY	Total Financial
Financial Capability	Turnover from business activities	2018-19	
		2019-20	
		2020-21	
		2021-22	
Networth	Measured as paid-up capital plus free reserves	2018-19	
		2019-20	
		2020-21	
		2021-22	

Documentary Proof Required

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

BANK ACCOUNT DETAILS OF BIDDER

1. Name of the Bank :
2. Name of the Branch :
3. Branch code :
4. City :
- 5.. Account No. :
6. MICR No. :
7. IFSC No. :
8. Income Tax PAN Number :
9. GST Registration Number :
10. Date of GST Registration :
11. Place of GST Registration :

Signature of the Bidder

FORMAT -10

Power of Attorney

We -----(name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr. / Ms. (name), -----son/daughter/wife of -----and presently residing at -----, who is presently employed with us and holding the position of -----, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the project proposed by the ----- (the "Andhra Pradesh State FiberNet Limited") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in pre-applications and other conferences and providing information/ responses to the APSFL, representing us in all matters before the APSFL, signing and execution of all contracts including the Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the APSFL in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Agreement with the APSFL.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us. T

The power of attorney shall be effective from and will continue to be valid binding and unforgettable till the attorney Mr./Ms. ----- ceases to be in the employment of the company unless otherwise withdrawn earlier by the company. This power of attorney will supersede any power of attorney issued earlier prior to the date of execution. In case this Power of Attorney is withdrawn for any reasons, APSFL shall be pre intimated.

IN WITNESS WHEREOFF for and on behalf of M/s _----- Mr./Ms.-----
----- Managing Director of the company has set his hands with company seal on the day of -----
-----month of ----- year of -----and at -----

For _ (Authorised Signatory of the company)
(Signature, Name, Designation, Address and emblem of the office seal)

Accepted (Authorised Signatory of the company)
(Signature in Duplicate, Name, Title and Address of the Attorney) Witnesses:

1.

2.

(Notarized)

FORMAT -11

**UNDERTAKING TO BE GIVEN BY THE COMPANY ALONG WITH THE BID
REGARDING BLACKLISTING/BANNING**

I, _____
representing the Company responding to the bid invitation by the APSFL vide Specification No.
_____ hereby sincerely and solemnly affirm and state as follows:

- (a) We, _____ (Name of Company) or our promoter's firm(s) have not been banned/ black-listed/debarred by any Govt. Department/ Department of Telecom, Govt of India undertaking or Power Utility for non-performance or malpractice or due to any reasons.

It is certified that the information furnished above is true to the best of my knowledge and belief. It is hereby undertaken that in the event of any of the above information found to be false or incorrect at the later dated, the APSFL / DISCOM is entitled to terminate the contract / agreement entered into besides recovering damages as may be found necessary, with due notice.

Signature of the Authorized Representative

FORMAT -12
SCHEDULE OF DEVIATION

TECHNICAL

Sl. No.	Requirements /	Specification Clause No.	Deviations	Remarks
	Equipment			

It is hereby conformed that except for deviations mentioned above, the offer conforms to all the other features specified in Technical Specification Section ____ of this Bid Document

Place :

Signature of the Bidder :

Date :

Name :

Business address:

SCHEDULE OF DEVIATION

COMMERCIAL

Sl. No.	Requirements /	Specification Clause No.	Deviations	Remarks
	Equipment			

It is hereby conformed that except for deviations mentioned above, the offer conforms to all the other features specified in Commercial Specification Section ____ of this Bid Document

Place :

Signature of the Bidder :

Date :

Name :

Business address:

Instruction to bidders:

- a. Deviations of Technical / Commercial indicated elsewhere will not be considered
- b. Deviations of Technical / Commercial will only be considered as mentioned above

FORMAT -13
DECLARATION FORM

To

The Managing Director
Andhra Pradesh FiberNet Limited
Vijayawada

Sir,

1. Having examined the above specification together with Tender conditions referred to therein, I/We undersigned hereby offer to execute the lease contract covered there in complete in all respect as per the specification and general conditions, at the rates entered in the Price bid proposal sheet in the Tender. Our offer is valid up to 180 days from the date of Bids opening and the prices which are on firm basis will remain valid for one year from the date contract agreement.
2. I/We hereby undertake to continue the contract of the time mentioned in the NIT of the specification.
3. Certify that, I/we have remitted Tender processing fee and Bid Security as specified in the NIT of the tender.
- 4) In the event of award of the contract being decided in my/our favour, I/We agree to furnish the Contract Performance Bank Guarantee in the manner acceptable to continue the contract for the period of 15 years and for the sum as applicable to me/us as provided in the general conditions of contract (Volume-III) of this specification within 45 days of issue of LOI. Failing which I/We clearly understand that the said contract will be liable to be withdrawn and the Bid security might be forfeited by APSFL.

Signed this day of2021.

Yours faithfully,

Signature with designation & Seal of Bidder.

(This form should be duly filled and scanned copy should be uploaded in the Tender portal)

CHECK LIST

The bidders shall invariably upload the information and **attested copies of documents** listed in the check list below on **e-procurement platform**, and also confirm by marking Yes or No. The same shall have to be furnished either personally or through courier or by post in the stipulated time, if asked by APSFL.

1	Experience Certificate uploaded?	YES / NO
2	License/Registration uploaded?	YES / NO
3	Company Broacher/Catalogue uploaded?	YES / NO
4	Joint Venture/Consortium Document with a mention of lead partner uploaded?	YES / NO
5	Under taking on Rs. 100/- bond paper to hold 15 years contract uploaded?	YES / NO
6	Balance sheets for last three financial years commencing from FY 2019-21, submitted?	YES / NO
7	GST Registration Certificate uploaded?	YES/NO
8	Copy of PAN uploaded?	YES/NO
9	Declaration on all documents genuineness uploaded?	YES/NO
10	Under taking to pay Rental Charges as per G.O Ms. No.37, dt: 07.03.2016 of Gov. of AP uploaded?	YES/NO
11	Whether a proof of Bid Security in the form of BG uploaded?	YES/NO
12	Whether Transaction Fee is paid electronically or not. The copy of the receipt may be uploaded?	YES/NO
13	Whether Bankers certificate uploaded?	YES/NO
14	Whether uploaded the Forms as per the Specification?	YES/NO
15	Whether uploaded the undertaking informing that firm has not been banned/black listed/debarred by any Govt. Department // Department of Telecom, Govt of India undertaking or any power utility for non-performance or malpractice?	YES/NO
16	Whether Technical/Commercial Deviation form filled (deviations, if any, must be filled in the given format)	
17	Copy of Memorandum and articles of association attached?	YES/NO
18	Copy of Internet Service License/Telecom License/permission/Clearance from the concerned licensing Authority i.e, Dept. of Telecom, Govt. of India attached?	YES/NO
19	Area/Circle where Telecom service is currently being provided.	YES/NO
20	Certificate in support of Experience submitted?	YES/NO

**SIGNATURE OF THE
BIDDER**

SPECIAL INSTRUCTIONS TO BIDDERS

1. The Bidders shall up-load/submit the PBG equivalent to 3% of Quoted value only in the form of Bank Guarantee/FDR.
2. While preparing Commercial form on e-procurement platform, the Bidder has to enter the Price per kM per Fiber Pair per Annum and 10% maintenance charges.
3. Bidder shall enter the applicable GST in Cost Component Column in Commercial form.
4. Bidder shall arrive the quantity as per STEP 1
5. Attested copies of all the documents shall be up-loaded as per the Check List.

Annexure –I
Details of OPGW Fiber availability across Andhra Pradesh (13 Districts)

OPGW Network fiber Pertaining to Telecom circle,Visakhapatnam zone							
S.No.	Name of the Link (Sub-Station A - Sub-station B)	Length of Line in Km.	Dark fiber pairs	latitude Sub-station A	Longitude Sub-station A	latitude Sub-station B	Longitude Sub-station B
1	3	4	7				
District : Srikakulam							
1	220KV Tekkali-Garividi	93	6	18.58841667	84.24438889	18.2801944	83.52780556
2	132KV Palasa-Tekkali (Under PSDF Reliable scheme)	31	6	18.76997222	84.41538889	18.5884167	84.24438889
3	132KV Tekkali-Narasannapeta (Under PSDF Reliable scheme)	28	6	18.58841667	84.24438889	18.4336389	84.06947222
4	132KV Garividi-Pyidibhimavaram (Under PSDF Reliable scheme)	29	2	18.28019444	83.52780556	18.1422	83.6202
5	132KV Pydibhimavaram-Chilakapalem (Under PSDF Reliable scheme)	49	2	18.14238889	83.62041667	18.2716111	83.80894444
6	132KV Chilakapalem-Ponduru (Under PSDF Reliable scheme)	17	2	18.27161111	83.80894444	18.3626389	83.77888889
7	132KV Garividi-Palakonda (Under PSDF Reliable scheme)	62	2	18.28019444	83.52780556	18.5959444	83.76719444
8	132KV Garividi-Rajam (Under PSDF Reliable scheme)	19	6	18.28019444	83.52780556	18.3960833	83.62933333
9	220KV Pydibhimavaram-Maradam (Stringing in progress)	48	6	18.1422	83.6202	18.4038	83.3395
10	132KV Chilakapalem-Pydibhimavaram(220KV) (Stringing will be commenced)	28	6	18.27161111	83.80894444	18.1422	83.6202
11	132KV Ichapuram-Palasa (Under PSDF Reliable scheme)	53	4	19.10452778	84.68227778	18.7699722	84.41538889
12	132KV Tekkali-Pathapatnam (Under PSDF Reliable scheme)	32	4	18.58841667	84.24438889	18.7505	84.0916
		489					
District : Vizianagaram							
1	Garividi220kv-Maradam400kv	40	6	18.28019444	83.52780556	18.4202	83.3252
2	Garividi220kv-Bobbili220kv	41	6	18.28019444	83.52780556	18.5266	83.3438
3	Garividi220kv-Garbam132kv	14	4	18.28019444	83.52780556	18.3722	83.46
4	Garividi220kv-Vontitadi 132kv	32	6	18.28019444	83.52780556	18.0751944	83.38752778
5	Maradam 400kv-kalapaka 400kv	121	6	18.4208	83.3242	17.6133889	83.12025
6	Maradam 400kv-Bobbili220kv	14	6	18.4208	83.3242	18.5266	83.3438

7	Maradam 400kv-BD palem 220kv	72	6	18.4208	83.3242	17.8918333	83.23847222
8	Maradam 400kv-pendurty 220kv	88	6	18.4208	83.3242	17.82944	83.00009
9	BD Palem 220kv- Sarda 220KV	8	6	17.89183333	83.23847222	17.9422	83.2133
10	Garbam132kv-Bobbili132kv	27	5	18.56377778	83.33913889	18.5633	83.34
11	Bobbili 132kv-Bobbili 220kv	3	6	18.56377778	83.33913889	18.5266	83.3438
12	Bobbili 132kv-Parvatipuram132kv	30	6	18.56377778	83.33913889	18.7726389	83.42708333
13	TB Vara 132kv-Araku 132kv	38	6	18.17166667	83.12683333	18.3376667	82.86661111
14	Kothavalasa132kv-Pendurty 220KV	14	6	17.93630556	83.18711111	17.82944	83.00009
15	G-chodavaram 132kv-Pydbimavaram 220KV	8	6	17.89917	82.89889	18.1422	83.6202
		550					
District : West Godavari							
1	K.Kota 220KV-132KV K.Kota Line	0.415	6	16.99908333	81.20355556	16.9990833	81.20355556
2	K.Kota 220KV- JRG 132KV Line	17	6	16.99908333	81.20355556	52.8803	18.93375
3	132KV Pedavegi-Eluru	28	2	16.80975	81.10911111	16.69975	81.09633333
4	220Kv K.Kota- Nallajerla	34	2	16.99908333	81.20355556	16.9428333	81.39780556
5	132KV Bhimadolu-Pedavegi	31	2	16.96380556	81.80186111	16.80975	81.10911111
6	132KV Eluru- Bhimadolu	28	2	16.69975	81.09633333	16.9638056	81.80186111
7	220KV Bhimadolu-Nuziveedu	52	2	16.82394444	81.26019444	16.7871	80.8597
8	Bhimadolu-PT Palli line	27	6	16.96380556	81.80186111	16.8401111	81.49925
9	220KV Bhimadolu-Pallantla Line	42	6	16.82394444	81.26019444	16.9964167	81.55888889
10	220KV Undi-BMVRM line	10	6	16.57872222	81.47805556	16.5512222	81.54516667
11	220 KV Nidadavolu-Kovvur 132 KV line	12	6	16.92883333	81.67727778	17.00947	81.73944
12	132 KV Bmvrn-Narasapuram line	23	6	16.55122222	81.54516667	16.4343333	81.68752778
13	220KV Nidadavolu - Saggonda 132KV line	34	6	16.92883333	81.67727778	17.1723611	81.60094444
14	132Kv PT Palli-Nidadavolu line	21	6	16.840168	81.498824	16.91675	81.67336111
15	132KV BMVRM-Penug line	32	6	16.55122222	81.54516667	16.55111	81.54500
16	220KV Nidadavolu-Pallantla line	17	6	16.92883333	81.67727778	16.9964167	81.55888889
17	220KV Nidadavolu-Vijjesw.2 line	5	6	16.92883333	81.67727778	16.92883	81.67694
18	Bommur- 132 Kv SS Nidadavolu line	18	6	16.96380556	81.80186111	16.91675	81.67336111
19	Bhimadolu-Bommuru line	71	6	16.96380556	81.80186111	16.9638056	81.80186111
20	K.Kota 220KV-Nuziveedu	69	2	16.9990833	81.20355556	16.7871	80.8597
21	K.Kota 220KV-400KV K.Kota	5	6	16.99908333	81.20355556	16.574	81.1141
22	K.Kota 220KV-Yernagudem	37	6	16.99908333	81.20355556	16.999	81.5061
23	K.Kota 220KV-Chintalapudi	27	6	16.99908333	81.20355556	17.0534167	80.9845
24	K.Kota 400KV-HNPCL	258	6	16.96222222	81.19491667	17.7008	83.2119
25	K.Kota 400KV-Suryapeta	186	6	16.96222222	81.19491667	17.1314	79.6336
26	Duvva-Undi	32	6	16.91666	81.67305	16.5787222	81.47805556
27	Duvva-Vemagiri	35	6	16.91666	81.67305	16.9417	81.8053

28	Duvva-Tanuku	26	6	16.91666	81.67305	16.7461667	81.68147222
29	Duvva-Nidadavolu 132 KV	27	6	16.91666	81.67305	16.91675	81.67336111
30	Saggonda-Andhra sugars ltd.	2	6	17.17236111	81.60094444	17.1808853	81.614685
31	K.Kota 220KV-Bommuru	96	6	16.99908333	81.20355556	16.9638056	81.80186111
32	Nallajerla-Yernagudem	21	6	16.56356	81.23516	16.999	81.5061
33	Bhimadolu-VTPS	90	6	16.82394444	81.26019444	16.5939	80.544
34	Bhimadolu-Bommuru	70	6	16.82394444	81.26019444	16.9638056	81.80186111
		1483.415					
Distri ct : Visak hapat nam							
1	Kalapaka-VSS	4	6	17.61338889	83.12025	17.6383	83.1351
2	Kalapaka-Dairy farm	54	6	17.61338889	83.12025	17.7625833	83.31383333
3	Kalapaka-Brandix	23	6	17.61338889	83.12025	17.5225	82.99088889
4	Kalapaka-Hinduja	14	6	17.61338889	83.12025	17.7008	83.2119
5	Kalapaka-Maradam	120	6	17.61338889	83.12025	18.4208	83.3242
6	PGCIL-VSS	2	6	17.61338889	83.12025	17.6383	83.1361
7	Hinduja-Kamavarapukota	250	6	17.61338889	83.12025	16.9622222	81.19491667
8	Brandix-Narsingabilli	27	6	17.5225	82.99088889	17.6044167	82.87513889
9	VSS-Kakinada	156	6	17.6383	83.1361	17.0166667	82.24952778
10	VSS-Parawada	7	6	17.6383	83.1361	17.64241	83.09142
11	VSS-Gajuwaka	12	6	17.6383	83.1361	17.69425	83.20677778
12	VSS-Gangavaram Port	10	1	17.6383	83.1361	17.65889	83.20806
13	VSS-Pendurthy	34	6	17.6383	83.1361	17.8297222	83.22797222
14	VSS-RINL(MRS)	8	6	17.6383	83.1361	17.6346	83.1971
15	Parawada-ANRAK	62	6	17.6383	83.1361	17.6086667	82.73683333
16	Narsingabilli-RAMKY	4	6	17.60441667	82.87513889		
17	Koruprolu-MyHome	15	6	17.4205	82.76569444		
18	Koruprolu-Narsipatnam	44	6	17.4205	82.76569444	17.6616111	82.60205556
19	Koruprolu-Payakaraopeta	30	2	17.4205	82.76569444	17.3644444	82.56375
20	Koruprolu-Pitapuram	85	6	17.4205	82.76569444	18.7423056	84.08394444
21	Payakaraopeta-Peddapuram	60	2	17.36444444	82.56375	17.0854167	82.12822222
22	Gajuwaka-GangavaramPort	8	1	17.69425	83.20677778	17.6383	83.1361
23	Gajuwaka-Simhachalam	17	6	17.69425	83.20677778	17.7596389	83.21813889
24	Gajuwaka-VIZAG SPECIAL ECONOMIC ZONE	14	6	17.69425	83.20677778	17.7073056	83.15336111
25	Gajuwaka-NavalWharf	8	2	17.69425	83.20677778	17.6989167	83.25672222
26	Pendurthy-Maradam	89	6	17.82972222	83.22797222	18.4208	83.3242
27	Pendurthy-BDPalem	10	6	17.82972222	83.22797222	17.8922	83.235
28	Pendurthy-Kasimkota	37	6	17.82972222	83.22797222	17.6863056	82.98141667
29	Pendurthy-Anandapuram	20	6	17.82972222	83.22797222	17.8793611	83.37527778
30	Pendurthy-Kothavalasa	14	6	17.82972222	83.22797222	17.9363056	83.18711111
31	Pendurthy-Upper sileru	170	6	17.82972222	83.22797222	18.0585	82.0325
32	Dairy farm-Peda waltair	8	4	17.76258333	83.31383333	17.7308	83.3355
33	ANRAK-SSS	110	6	17.60866667	82.73683333	17.0419	82.1222

34	Gangavaram Port - Malkapuram	9	6	17.69425	83.20677778	17.6881667	83.25238889
35	Naval wharf - DGNP	2	6	17.69891667	83.25672222	17.7153889	83.27163889
36	Naval wharf - common Point	6	6	17.69891667	83.25672222	17.7281667	83.28144444
37	DGNP-VIZAG Port	4	6	17.71538889	83.27163889	17.7045833	83.29030556
38	Common Point - VIZAG Port	4	6	17.72816667	83.28144444	17.7045833	83.29030556
39	Simhachalam-VIZAG SPECIAL ECONOMIC ZONE	12	6	17.75963889	83.21813889	17.7073056	83.15336111
40	Simhachalam-Nakkavanipalem	13	6	17.75963889	83.21813889	17.7385278	83.30830556
41	Kasimkota-Chodavaram	31	6	17.6863055	82.98141667	17.89917	82.89889
42	Araku-Paderu	43	6	18.33766667	82.86661111	18.13110	82.63470
43	Araku-TBVara	38	6	18.33766667	82.86661111	18.17130	83.12648
44	Araku-Machhkund	68	6	18.33766667	82.86661111	18.50862	82.44175
		1756					
District : East Godavari							
1	400KV Vemagiri-GVK	6	2	16.94191667	81.80452778	16.932	81.861717
2	400KV Vemagiri-GMR	1	2	16.94191667	81.80452778	16.9116	81.843
3	400KV Vemagiri-Gowthami	39	6	16.94191667	81.80452778	17.06897	82.1061
4	220KV Vemagiri-Duvva	35	6	16.94191667	81.80452778	16.91666	81.67305
5	220KV Bommuru-Kakinada	66	6	16.96380556	81.80186111	17.0166667	82.24952778
6	220KV Bommuru-Bhimadolu	65	6	16.96380556	81.80186111	16.8239444	81.26019444
7	220KV Bommuru-Lower sileru	112	6	16.96380556	81.80186111	17.8622	81.6973
8	220KV Bommuru-Bhavojiapeta	35	6	16.96380556	81.80186111	81.83944	17.21222
9	220KV Bommuru-GVK	8	6	16.96380556	81.80186111	16.932	81.861717
10	22KV Lower sileru-Donkarayi	22	6	16.96380556	81.80186111	17.9296	81.7992
11	220KV Bhavojiapeta-Rampachodavaram	30	6	16.932	81.861717	17.4321389	81.78761111
12	220KV Bhavojiapeta-Purushottapatnam(LIS)	22	6	16.96380556	81.80186111	17.2306	81.6676
13	220KV Bhavojiapeta-Ramavaram(LIS)	27	6	16.96380556	81.80186111	17.19	82.0786
14	220KV Kakinada-Spectrum	9	6	17.01666667	82.24952778	17.05815	82.3101
15	220KV Kakinada-VSS(ADSS)	148	6	17.01666667	82.24952778	17.6383	83.1361
16	220KV Samarlakota-Reliance	2	6	17.0419	82.1222	17.0416944	82.12288889
17	220KV Samarlakota-GMR Barge	29	6	17.0419	82.1222	17.0416944	82.12288889
18	220KV Samarlakota-Anrak	124	6	17.60866667	82.73683333	17.0416944	82.12288889
19	132KV Rajanagaram-Bommuru	18	6	17.04805556	81.94352778	16.9638056	81.80186111
20	132KV Mallayyapeta-Bommuru	18	6	17.03192	81.77581	16.9638056	81.80186111
21	132KV RVK-Bommuru(ADSS)	12	6	16.93018	81.85064	16.9638056	81.80186111
22	132KV RVK-Editha	14	6	16.93018	81.85064	16.8705833	81.89758333
23	132KV Ramachandrapuram-Kakinada	32	6	16.83275	82.03875	17.0166667	82.24952778

24	132KV Ramachandrapuram-Amalapuram	31	2	16.83275	82.03875	16.58019444N	81.99488889
25	132KV Mummidivaram-Amalapuram	16	2	16.6381	82.09617	16.5801944	81.99488889
26	132KV Amalapuram-Razole	24	6	16.58019444	81.99488889	16.4622778	81.844
27	132KV Peddapuram-Pithapuram	13	2	17.08541667	82.12822222	17.1294167	82.25347222
28	132KV Peddapuram-Payakaraopeta	61	2	17.08541667	82.12822222	17.3644444	82.56375
29	132KV Peddapuram-Prathipadu	20	6	17.08541667	82.12822222	17.2239722	82.18941667
30	132KV Peddapuram-Kakinada	15	6	17.08541667	82.12822222	17.0166667	82.24952778
31	132KV Pithapuram-koruprolu	46	2	17.12941667	82.25347222	17.4205	82.76569444
32	132KV Pratapnagar-Kakinada	11	2	16.9725	82.22027778	17.0166667	82.24952778
33	132KV Gollapalem-Yanam	25	6	16.8544	82.166	16.7478	82.2992
34	132KV Pratapnagar-Gollapalem	19	2	16.9725	82.22027778	16.8544	82.166
35	132KV Silk road sugars-Kakinada	4	6	16.99611111	82.27305556	17.0166667	82.24952778
36	132KV Biccavolu-Samarlakota	13	6	16.97058333	82.03594444	17.0416944	82.12288889
		1172					
	TOTAL VIZAG ZONE FIBER LENGTH in KM	5450.415					

OPGW Network fiber Pertaining to Telecom circle,Vijayawada zone

S.No.	Name of the Link (Sub-Station A - Sub-station B)	Length of Line in Km.	Dar k fiber pairs	lattice Sub-station A	Longitude Sub-station A	lattice Sub-station B	Longitude Sub-station B
1	3	4	7				
KRISHNA DISTRICT							
1	132 KV SS Pamarru-Machilipatnam	23	6	16.3198	80.9708	16.1829	80.1163
2	132 KV SS Pamarru-Avanigadda	35	6	16.3194	80.9713	16.0249	80.925
3	132 KV SS Gudivada-Pamarru	28	2	16.4701	80.0091	16.3198	80.9708
4	132 KV SS Gudivada-kanumolu	22	2	16.4701	80.0091	16.6143	80.973
5	220 KV SS Nunna-Gudivada	40	6	16.564	80.6811	16.4695	81.0091
6	132KV SS Chigurukota-Gudivada	19	6	16.4773	81.1806	16.4694	81.0106
7	220 KV SS Kondapalli-Nuzividu	46	2	16.6392	80.5558	16.7871	80.8597
8	132 KV SS Kondapalli-Kambhampadu	50	2	16.6392	80.5558	16.9875	80.6575
9	220 KV SS Kondapalli-Lanco	8	6	16.6379	80.5513	16.6386	80.5547
10	132 KV SS Gunadala-Gangoor	12	2	16.521	80.6733	16.455	80.7152
11	132 KV SS Gunadala-Autonagar	2	2	16.521	80.6733	16.4999	80.6713
12	132 KV SS Gunadala-Rangannagudem	39	6	16.5213	80.673	16.6411	80.8988
13	132 KV SS Vijayawada-Bhavanipuram	3	6	16.5094	80.6113	16.5264	80.5888
14	132 KV SS Bhavnipuram- VTPS	11	6	16.5938	80.5352	16.5264	80.5888
15	132 KV SS Chillakallu-Nandigama	24	6	16.9018	80.1327	16.7604	80.2744
16	220 KV SS Chillakallu-VTPS	66	6	16.9011	80.135	16.6392	80.5558
17	220KVSS Gunadala - Nunna	6	6	16.52040	80.67190	16.56510	80.68140
18	220KVSS Gunadala - VTPS	19	6	16.52020	80.67190	16.59440	80.53720
19	220KVSS Kondapalli - VTPS	5	6	16.63990	80.55770	16.52020	80.67190
20	220KVSS Nunna - VTPS	19	6	16.56510	80.68140	16.52020	80.67190
21	220KVSS VTPS-Nuzividu	69	6	16.5944	80.5372	16.7863	80.8597
22	220KVSS NUZIVIDU - K.KOTA	69	2	16.7863	80.8597	16.99908333	81.20355556
23	220KVSS NUZIVIDU - Bhimadolu	52	2	16.7863	80.8597	16.96380556	81.80186111
24	VTPS stage-IV- Sutryapet	137	6	16.5944	80.5372	17.1349	79.6239
		804					
GUNTUR DISTRICT							
1	220KVS TDK - VTPS	28	6	16.401829	80.423077	16.5944	80.5372
2	220KVS TDK - TADEPALLI	25	6	16.401829	80.423077	16.4632	80.5875

3	220KVS TDK - GUNTUR	24	6	16.401829	80.423077	16.276624	80.463845
4	220KVS TDK - NALLAPADU	16	2	16.401829	80.423077	16.290336	80.364104
5	220KVS TDK - MARRIPALEM	34	2	16.401829	80.423077	16.186283	80.27542
6	220KVS TDK - GUJJANAGULLA	9	6	16.401829	80.423077	16.331759	80.389366
7	220KVS TDK - RENTAPALLA	37	2	16.401829	80.423077	16.4579659	80.159447 2
8	132KVSS PDGL - RENTAPALLA	44	2	16.459787 5	79.916296 7	16.4579659	80.159447 2
9	132KVSS PDGL - TANGEDA	34	6	16.459787 5	79.916296 7	16.65842	79.81472
10	132KVSS PDGL - KARAMPUDI	23	6	16.459787 5	79.916296 7	16.360891	79.726023
11	220KVSS RNTCL-TALLAPALLI	18	6	16.564664	79.517584	16.834361	79.64925
12	220KVSS RNTCL-TALPOND	9	6	16.564664	79.517584	16.6266	79.4966
13	220KVSS TALLAPALLI-VTPS I	136	6	16.834361	79.64925	16.5944	80.5372
14	220KVSS TALLAPALLI-NAGARJUNASAGAR	13	6	16.834361	79.64925	16.6266	79.3124
15	132KVSS MCL-RCPH	22	6	16.472416 67	79.442611 11	16.5697	79.3388
16	132KVSS MCL-VELDURTHY	21	6	16.472416 67	79.442611 11	16.348	79.3656
17	132KVSS REPALLE - BAPATLA	52	6	16.015301	80.816541	15.900485	80.454906
18	132KVSS BAPATLA-PARCHURU	26	6	15.900485	80.454906	15.987714	80.268474
19	132KVSS TENALI-CHAKRAYAPALEM	18	6	16.238724	80.633132	16.258491	80.715885
20	400KVSS SATENAPALLI - PARCHURU	56	6	16.3986	80.13055	15.987714	80.268474
21	400KVSS SATENAPALLI - NARASARAOPETA	20	6	16.3986	80.13055	16.2405	80.078
22	400KVSS SATENAPALLI - PRATHIPADU	49	6	16.3986	80.13055	16.1818	80.3352
23	400KVSS SATENAPALLI - PODILI	114	6	16.3986	80.13055	15.582169	79.776554
24	220KVSS NARASARAOPETA-VINUKONDA	58	6	16.3986	80.13055	16.0616	79.7397
25	220KVSS NARASARAOPETA-CHILAKALURIPETA	28	6	16.3986	80.13055	16.445	80.1883
26	132KVS GUNTUR-TENALI	23	6	16.276624	80.463845	16.238724	80.633132
27	220KVS PRATHIPADU-PONNUR	25	6	16.1818	80.3352	16.0686	80.5482
28	132KVS YADVALLY-MARTURU	17	6			15.963605	80.096788
979							
PRAKASAM DISTRICT							
1	132 KV Ongole SS - 132 KV Inkollu SS	39.000	2	15.15307	80.03779	15.69827	80.13904
2	220 KV Ongole SS - 132 KV Ongole SS	2	6	15.50175	80.02733	15.15307	80.03779
3	220 KV Purchur SS - 132 KV Inkollu SS	22	2	15.98801	80.26926	15.69827	80.13904
4	132 KV Medaramitla - 132 KV Addanki SS	22	6	15.6761	80.01229	15.51057	79.58435

5	132 KV Kandukur SS - 220 KV Ongole SS	27	6	15.26739	79.99735	15.50189	80.02715
6	220 KV Ongole SS - 132 KV Tangutur SS	18	6	15.50164	80.02754	15.34681	80.0263
7	132 KV Dornala SS - 132 KV Y Palem SS	32	2	15.54664	79.04744	15.02925	79.30545
8	132 KV Dornala SS - 220 KV Srisailam SS	33	2	15.54664	79.04744	16.05262	78.54254
9	132 KV Kanigiri SS - 132 KV Pamuru SS	36	6	15.23867	79.30559	15.10033	79.39425
10	220 KV Podili SS - 132 Kv Darsi SS	28	6	15.34815	79.45795	15.79124	79.65560
11	220 KV Podili SS - 132 KV Lingasamudram SS	52	6	15.34812	79.45803	15.12563	79.71339
12	220 KV Podili SS - 220 KV Markapur SS	69	6	15.34817	79.45941	15.77327	79.27314
13	220 KV Podili SS - 220 KV Purchur SS	73	6	15.34817	79.45941	15.59207	80.16102
14	Parchuru 220 KVSS - Chirala 132 KVSS	23	6	15.987714	80.268474	15.812	80.3553
15	Parchuru 220 KVSS - Marturu 132 KVSS	19	6	15.987714	80.268474	15.9938	80.1038
16	Ongole 220 KVSS - Podili 220 KVSS	31	6	15.53318	80.027764	15.582169	79.776554
17	Ongole 220 KVSS - IFFCO 220 KVSS	92	2	15.53318	80.027764	14.64252	79.962593
18	Ongole 220 KVSS - 220 KVSS Nellore	128	2	15.53318	80.027764	14.41027	79.93112
19	Podili 220 KVSS -Kanigikri 132 KVSS	46	4	15.582169	79.776554	15.4010962	79.5081735
20	Podili 220 KVSS - M. Metla 132 KVSS	58	2	15.582169	79.776554	15.676398	
21	Kanigiri 132 KVSS - M.Metla 132 KVSS	76	2	15.4010962	79.5081735	15.676398	80.012224
22	Podili 400 KVSS - Kandukuru 220 KVSS	60	6	15.58625755	79.69831899	15.2197	79.9025
23	Markapur 220 KVSSs - Kesaneni Palli 132 KVSS	19	6	15.7725	79.27330	15.9167317	79.3274267
24	Markapur 220 KVSSs - Cumbum 132 KVSS	30	6	15.7725	79.27330	15.5906808	79.116778
25	Cumbum 132 KVSS - Giddalur 132 KVSS	39	2	15.5906808	79.116778	15.37891	78.9349
26	220 KVSS Kandukur - Kavali 132 KVSS	57	2			14.911149	79.979426
27	220 KVSS Kandukur - Kandukuru 132 KVSS	15	2			15.229844	79.897192
28	Cumbum 132 KVSS - Amnuman Palli	47	2	15.5906808	79.116778		
29	Amnuman Palli 132 KVSS - Giddalur	23	2			15.37891	78.9349
		1216					

NELLORE DISTRICT							
1	Krishnapatnam- Manubolu	38	4	14.2568	80.1224	14.220833	79.885278
2	Krishnapatnam-Chittoor 400KVSS	194	6	14.2568	80.1224	13.216389	79.223333
3	220KV Atmakru-Udayagiri	53	6	14.652057	79.616724	14.87348	79.316144
4	Manubolu-Rapuru	36	6	14.220833	79.885278	14.27869	79.590827
5	IFFCO SEZ -NTS	23	6	14.64252	79.962593	14.491329	79.986131
6	Nellore-Atmakuru 220	58	6	14.41027	79.93112	14.63846	79.6592
7	Atmakuru 220-Podili 220	127	6	14.652057	79.616724	15.582169	79.776554
8	Atmakuru 220-Vinjamuru	25	6	14.652057	79.616724	14.81257	79.56205
9	Nellore-Brahmadevam	19	6	14.41027	79.93112	14.351789	80.06075
10	Venkatagiri-Rachaguneri	36	6	13.9558	79.59655	13.71872	79.62826
11	Nellore-Adurupalli	44	6	14.41027	79.93112	14.44941	79.59879
12	Sullurpeta-SHAR	26	6	13.709112	79.993374	13.746442	79.709662
13	Gudur-Menakur	28	4	14.13497	79.839908	13.921426	79.813639
14	Nellore- IFFCo	34	2	14.41027	79.93112	14.64252	79.962593
15	Atmakuru 220-Atmakuru 132 KV	6	6	14.652057	79.616724	14.652057	79.616724
16	MANUBOLU-GUDURU	15	6	14.220833	79.885278	14.13497	79.839908
17	NELLORE-NV GARDENS	9	6	14.41027	79.93112	14.47101	80.03943
18	Guduru- Naidupeta	30	6	14.13497	79.839908	14 13 16.14 N	14 13 16.14
19	Manubolu - Rachagunneri	89.00	4	14.220833	79.885278	13.71872	79 53 8.13
20	NELLORE - MANUBOLU	30.00	4	14.41027	79.93112	14.220833	79.885278
		920					
TOTAL VIJAYWADA FIBER LENGTH in KM		3919.00 0					

OPGW fiber Network Pertaining to Telecom circle,KADAPA zone

S.No.	Name of the Link (Sub-Station A - Sub-station B)	Length of Line in Km.	Dark fiber pairs	latitude Sub-station A	Longitude Sub-station A	latitude Sub-station B	Longitude Sub-station B
1	3	4	7				
KADAPA DISTRICT							
1	220KVSS CKPalli - RTPP	64	6	14.3877	78.7986	14.7138N	78.4632
2	CKPalli - Kalikiri 220KVSS	89	5	14.3877	78.7986	13.653283	78.802693
3	CKPalli - 132KVSS Moolavanka	9	6	14.3877	78.7986	14.4393611	78.80402778
4	CKPalli - 132KVSS Rayachoti	33	6	14.3877	78.7986	14.1089083	78.74001389
5	132KVSS Rayachoti - 132KVSS Sambepalli	14	6	14.1089083	78.7400139	13.9914306	78.74863333
6	220KVSS Pulivendula - 132KVSS Balapanuru	12	6	14.4629	78.229797	14.539225	78.19435833
7	220KVSS Pulivendula - 132KVSS Lingala	15	6	14.4629	78.229797	14.5121222	78.1
8	220KVSS Pulivendula - RTPP	42	6	14.4629	78.229797	14.702134	78.45924
9	132KVSS Pulivendula - Vempalli 132KVSS	42	4	14.4032944	78.2288417	14.376675	78.45918333
10	CKPalli - Rajampeta	56	4	14.3877	78.7986	14.175561	79.135361
11	RTPP- Yerraguntla	15	6	14.702134	78.45924	14.625294	78.539875
12	220KVSS RTPP - 220KVSS Thimmapuram	47	3	14.702134	78.45924	14.708333	78.099722
13	400KVSS RTPP - 400KVSS Kalikiri	136	6	14.7-2106	78.455474	13.653283	78.802693
14	220KVSS Yerraguntla - Muddanur	23	6	14.625294	78.539875	14.6877778	78.40269444
15	220KVSS Yerraguntla - Vempalli	18	4	14.625294	78.539875	14.376675	78.45918333
16	220KVSS Yerraguntla - 132KVSS Pulivendula	44	4	14.625294	78.539875	14.4032944	78.22884167
17	400KVSS Jammlamadugu - Chakraipeta	92	4	14.9336552	78.314735	14.2672221	78.4916663
18	Chakraipeta - Animala	14	4	14.2672221	78.4916663	14.487664	78.507679
19	400kv jammalamadugu - 220kv Tirumalayapalli	30	4	14.9336552	78.314735	14.9059185	78.128575
20	400kv jammalamadugu - 220kv Mylavaram	11	4	14.9336552	78.314735	14.922159	78.277966
21	220kv Timmapuram - 220kv Kondapuram	9	6	14.708333	78.099722	14.761944	78.165139

22	220kv Kondapuram - 132kv GKLIS	3	6	14.761944	78.165139	14.7755028	78.18294167
23	220kv Yerraguntla - 132kv Bharathi Cements	6	6	14.625294	78.539875	14.5911667	78.57891944
24	220kv Yerraguntla - 132kv Proddatur	15	6	14.625294	78.539875	14.7481944	78.52805556
25	Jammalamadu 400KVSS - Animala	78	4	14.9336552	78.314735	14.487664	78.507679
26	132kv Proddatur - 132kv Jammalamadugu	13	4	14.7481944	78.5280556	14.8680556	78.38916667
27	220KVSS Kadapa - CKPalli	15	6	14.477958	78.836811	14.3877	78.7986
28	Kadapa - Chowtapalli	12	6	14.477958	78.836811	14.4693303	78.8008507
29	Kadapa - Mydukur	33	6	14.477958	78.836811	14.7225	78.753611
30	Rajampeta - Kodur	40	4	14.175561	79.135361	13.984769	79.337031
31	Rajampeta - TGPalli	21	6	14.175561	79.135361		
32	Kodur - Renigunta	62	4	13.984769	79.337031	13.64029	79.51757
33	Duvvur - Proddatur	32	4	14.8212778	78.6740833	14.7481944	78.52805556
34	Duvvur - Jammalamdugu 132KVSS	36	4	14.8212778	78.6740833	14.8680556	78.38916667
35	Badvel - 132KVSS Porumamilla	20	6	14.7097222	79.0577778	14.9955556	78.98972222
36	220KVSS Porumamilla - 132KVSS Porumamilla	20	6	14.838077	79.018335	14.9955556	78.98972222
37	220KVSS Porumamilla - Kalasapadu 132KVSS	35	6	14.838077	79.018335		
38	220KVSS Porumamilla - B. Mattam	20	6	14.838077	79.018335	14.943551	78.88750813
39	220KV Porumamilla- 400KV Jammalamadugu	103	6	14.838077	79.018335	14.9336552	78.314735
		1379					
CHITTOOR DISTRICT							
1	220KVSS Renigunta - 132KVSS Pakala	69	2	13.64029	79.51757	13.44018	79.112
2	220KVSS Renigunta - 220KVSS Rachagunneri	20	6	13.64029	79.51757	13.71872	79.62826
3	220KVSS Renigunta - Manubolu	90	6	13.64029	79.51757	Nellore jurisdiction	
4	Chittoor 400 KVSS to Krishnapatnam 400 KVSS	197	6	13.216389	79.223333	Nellore jurisdiction	

5	Chittoor 400 KVSS to Kalikiri 400 KVSS	102	6	13.216389	79.223333	13.6452036	78.718746
6	Palamaneru 220KV SS To Kuppam 220KV SS	69	6	12.737802	78.348083	12.81258	78.37671
7	Kuppam 220KV SS To Santipuram 132KV SS	9	6	12.81258	78.37671	12.87141	78.40365
8	Kuppam 220KV SS To Kuppam 132KV SS	10	6	12.81258	78.37671	13.20182	78.75858
9	Madanapalli 220KV SS To Ramasamudram 132KV SS	31	6	13.582687	78.531001	13.374733	78.4499
10	N.G.Palli 132KV SS To Kothapalli 132KV SS	20	6	13.2088945	79.0263426	13.2972222	79.52666667
11	Chittoor 400KV SS To Palamaneru 220KV SS	58	6	13.216389	79.223333	12.737802	78.348083
12	Kalikiri 220KV SS To Gurramkonda 132KV SS	27	6	13.653283	78.802693	13.755165	78.587297
13	Madanapalli 132KV SS To B.Kota 132KV SS	28	6	13.572259	78.505775	13.671876	78.275233
14	Kalikiri 220KV SS To Madanapalli 132KV SS	37	4	13.653283	78.802693	13.572259	78.505775
15	Chittoor 220KV SS To Irala 132KV SS	25	6	13.794167	78.802693	13.88	78.99
16	Palamaneru 220KV SS To Pungunur 132KV SS	32	6	12.737802	78.348083	13.3714738	78.573511
17	Palamaneru 220KV SS To Santipuram 132KVSS	61	6	12.737802	78.348083	12.87141	78.40365
18	Chittoor 400KV SS To Chittoor 220KV SS	22	6	13.216389	79.223333	13.794167	78.802693
19	Chittoor 220KV SS To N.G.Palli 132KV SS	9	4	13.794167	78.802693	13.208894	79.026342
20	Palamaneru 220KV SS To N.G.Palli 132KV SS	37	4	12.737802	78.348083	13.208894	79.026342
21	Chittoor 220KV SS To Palamaneru 220KV SS	44	4	13.794167	78.802693	12.737802	78.348083
22	Madanapalli 220KVSS To Madanapalli 132KVSS	5	4	13.582687	78.531001	13.572259	78.505775
23	Kalikiri 220KV SS To Somala 132KV SS	20	6	13.653283	78.802693	13.511566	78.587034

24	Kalikiri 220KV SS To Thimmapuram 220KV SS	17	1	13.653283	78.802693	14.708333	78.099722
25	Thimmapuram 220KV SS To C.K.Palli 220KVSS	73	3	14.708333	78.099722	14.3877	78.7986
26	Kalikiri 220KV SS To Madanapalli 220KV SS	36	4	13.653283	78.802693	13.582687	78.531001
27	132 K Chandragiri-Tirumala	11	6	13.589536	79.3112517	13.672519	79.352756
28	Nagari -Nagalapuram 132KV	20	6	13.3200519	79.585628	13.3202231	79.5928359
29	132kvS.K.Hasti-220KV Renigunta	25	6	13.745719	79.7112379	13.64029	79.51757
30	220KV Renigunta-132KV Chandragiri	26	6	13.64029	79.51757	13.5895364	79.3112517
31	132KV Puttur-220KV Nagari	19	6	13.45322	79.549136	13.3200519	79.585628
32	220KV Renigunta-220KV Nagari	48	6	13.64029	79.51757	13.3200519	79.585628
33	220kv Renigunta-132kv Puttur	23	6	13.64029	79.51757	13.45322	79.549136
		1320					
KURNOOL DISTRICT							
1	220 KV D/C Narnoor S/S - AP Carbides S/S	15	6	15.71029	78.10661	15.784859	78.03587
2	220KV D/C Narnoor(400KV) - Somayajupalli S/S	21	6	15.71029	78.10661	15.569444	78.176667
3	132KV S/C Cement Nagar S/S - Nandyala S/S	29	6	15.51	78.2088889	15.469317	78.453014
4	220KV D/C Nandyal S/S - Somayajupalli S/S	35	6	15.469317	78.453014	15.569444	78.176667
5	220KV D/C Dhone S/S - Gooty S/S	90	3	15.47462	77.893175	15.13736	7.62741
6	220KV D/C Dhone S/S - Somayajupalli S/S	41	3	15.47462	77.893175	15.569444	78.176667
7	Adoni - Aluru	41	4	15.6074065	77.267426	14.684095	80.06688
8	Aluru - Pathikonda	39	4	14.684095	80.06688	15.39278	77.49865
9	Pathikonda - Gooty RS	39	4	15.39278	77.49865	15.13736	77.62741
10	Racherla - Gooty RS	50	4	15.4625069	78.9641763	15.13736	77.62741
11	Racherla - Dhone 132	41	4	15.4625069	78.9641763	15.395984	77.8727193
12	Dhone - Kurnool	52	4	15.395984	77.8727193	15.825627	78.023969

13	132KV Yemmignuar S/S -Gudur S/S	30	4	15.76106	77.51538	14.13497	79.839908
14	132KV Nandikotur-Atmakur	42	4	15.83211	78.27225	15.8803264	78.59969444
15	220KV Somayajupalli S/S - Bhilakalagudur	38	6	15.569444	78.176667	15.69053	78.45786
16	Nandyala-Banaganapally	30	6	15.469317	78.453014	15.3037167	78.22954722
17	AP.Carbides - Nandikotkur	29	4	15.78475	78.03673	15.8325056	78.27224444
18	AP.Carbides - Gudur	28	4	15.78475	78.03673	14.13497	79.839908
19	Yemmiganur - Adoni	34	6	15.7616	77.51502		
20	Banaganpalli - Mudigedu	13	6	15.30394	78.22984	15.1933333	78.26472222
21	Kurnool - APCarbides	6	6	15.825627	78.023969	15.78475	78.03673
22	Yemmiganur - Mantralayam	27	6	15.7616	77.51502	15.91922	77.35215
27	Nandyala- Allagadda	43	6	15.469317	78.453014	15.1233333	78.50472222
29	Allagadda - Rudravaram	28	6	15.1233333	78.5047222		
30	Rudravaram - Nandyala	45	4			15.469317	78.453014
31	Narnoor - Brahamankotkur	24	6	15.71029	78.10661	15.822336	78.190319
32	Malyala - Muchumarri	11	6	15.894214	78.232353	15.979317	78.301951
33	Ghani - Narnnur	19	6	15.681111	78.250833	15.711111	78.106111
34	Jammalamadugu 400kvss - Nannur 400kvss	106	6	14.9336552	78.314735	15.711111	78.106111
		1046					
ANANTAPUR DISTRICT							
1	ATP- Gooty SwSt	59	6	14.6963	77.6391	15.1538	77.6547
2	ATP- Timmapuram	57	1	14.6963	77.6391	14.708333	78.099722
3	ATP -RTPP	105	5	14.6963	77.6391	14.702134	78.45924
4	ATP -Kalyanadurg	64	6	14.6963	77.6391	14.55488	77.113343
5	ATP - Dharmavarm	36	6	14.6963	77.6391	14.427836	77.70483444
6	Kalyanadurg - Rayadurg	30	6	14.55488			
7	Rayadurg - Obulapuram	40	6			15.029716	76.861755
8	Kadiri - Puttaparthi	65	4	14.1475833		14.1566667	77.76822222
9	Shapuram-Boksham palli	8	6	14.151558			
10	Shapuram-S R Palli	10	6	14.151558			
11	Boksham palli - Ammavari palli	14	4				
12	SR Palli- Ammavari palli	11	4				

13	Jammulabanda - Hindupur	46	6	13.9860833		13.2555	77.480778
14	Jammulabanda - Amarapuram	26	6	13.9860833			
15	Thumukunta - Hindupur	22	6	13.7310833		13.2555	77.480778
16	Kadiri - Tanakallu	29	3	14.1475833		13.9167356	78.19758667
17	Borampalli - Uravakonda SMDC	34	6			14.9106583	77.26799167
18	Borampalli - Uravakonda TMDC	33	6			14.9106583	77.26799167
19	400KV Uravakonda-Hindupur	129	6	14.887306	77.256003	13.2555	77.480778
20	400KV Uravakonda - Talari cheruvu	102	5	14.887306	77.256003		
21	400KV Uravakonda - Veltoor (inter state)	197	6	14.887306	77.256003		
22	400KV Talaricheruvu - Jammulamadu	30	6			14.9336552	78.314735
23	Uravakonda - Vajrakarur	20	6	14.9106583	77.2679917	15.002151	77.336579
24	Gooty Rs - Ragulapadu	64	6	15.1378	77.6275	15.002768	77.335164
25	Gooty SS - Gooty RS	4	3	15.1538	77.6547	15.1378	77.6275
26	GootySS-BR Palli (Penna cement)	38	4	15.1538	77.6547	15.059378	77.952778
27	BR Palli- Tadpatri	30	4	15.059378	77.952778	14.908481	78.012344
28	Gooty Rs -BMM cements	52	4	15.1378	77.6275	15.07472	77.9819
29	Gooty Rs - Ankireddypalli	62	4	15.1378	77.6275	15.0334861	78.05976111
30	Tadpatri -Komali	10	6	14.9011	77.9791	14.9394694	77.93718056
31	Tadpatri- Komatikuntla	15	6	14.9011	77.9791	14.6753639	78.04860278
32	Guntakal - Uravakonda	30	6	15.159	77.3683028	14.9106583	77.26799167
33	Gooty Rs -Guntakal	38	4	15.1378	77.6275	15.159	77.36830278
34	Guntakal -Hampi	99	4	15.159	77.3683028	15.3161	76.4983
35	220KVSS Thimmapuram - 220KVSS Yellannur	10	6	14.708333	78.099722	14.675389	78.048528
36	400kv jammalamadu - 400kv Uravakonda	104	1	14.9336552	78.314735	14.887306	77.256003
37	220kv Timmapuram - 220kv Anantapur	104	6	14.708333	78.099722	14.6963	77.6391
		1827					

	TOTAL KADAPA ZONE FIBER LENGTH in KM	5572					
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Diagram showing the OPGW links across Andhra Pradesh

