

RFP No.: APSFL/OLA/284-2/2018, Dated 02/03/2019

Supply, Installation and Commissioning of DWDM Network Upgrade Equipment for AP Fiber Grid

SNo	RFP Part No.	Section No.	Page no.	Content of the RFP requiring clarification	Clarification Sought	Clarification from APSFL
1	Clarifications 04 Dt:15.05.2019	S.No.24	2	UPS and Batteries are not required. If bidder is proposing any equipment not supporting 65% temperature, they need to supply rack with air-conditioning for supporting those devices.	We understand that uninterrupted AC Power Supply will be provided by APSFL at Zonal location for DWDM/OTN equipment's.  Request APSFL to kindly Confirm	Yes uninterrupted AC power will be provided for the DWDM/OTN equipment alone.
2	Clarifications 04 Dt:15.05.2019	S.No.24	2	UPS and Batteries are not required. If bidder is proposing any equipment not supporting 65% temperature, they need to supply rack with air-conditioning for supporting those devices.	We understand that Bidder needs to be consider the AC to DC rectifier only for all the equipment proposed for ZONAL sites.  Request APSFL to kindly Confirm	Clause is clear.
3	Clarifications 04 Dt:15.05.2019	S.No.26	3	Any additional locations other than the existing OLA locations, bidder need to consider all the additional infrastructure requirements as required in the solution without any additional cost to APSFL.	We understand that uninterrupted DC Power Supply will be provided by APSFL at all the OLA location for ILA/OLA equipment's. Also the Airconditioning for existing OLA sites would be made available by APSFL.  For the additional OLA locations(If Any) Bidder need to consider only the RACK/Power cables. Air-Conditioning will be provided by APSFL  Request APSFL to kindly Confirm	No. All APSFL locations will have only A/C power and if bidder is proposing OLA not supporting 65 Degree temperature, they need to supply rack with air-conditioning for supporting those devices.
4	Corrigendum 06, Dt:30.04.2019	2.2.1 General Requirements, S.No.31	6	Supplied Equipment shall support at District level & Zonal level 0-45 degree C, considering Bidder shall provide Smart Racks for all zonal nodes with air conditioning to meet the temperature requirement.	Request APSFL to kindly confirm the specification of Smart rack if any .	As per bidder solution.
6	Corrigendum 08, Dt:16.05.2019	S.No.4	1	Bidder/Consortium can only bid with a single OEM for DWDM and OTN Equipment. In case of Bidder/Consortium offering multiple OEM options such bids shall be rejected.	As per the clause we understand that one OEM can bid with only one System Integrator/Bidder.  Request APSFL to kindly confirm .	Clause is clear.
8	Clarifications 03 Dt:10.5.2019	S.No.12	3	All equipment supplied as part of the Bid should run with AC power. About the racks, bidder needs to provide the required racks with the airconditioning and airflow mechanism to maintain the required environmental temperature even in case of power failures.	As mentioned in Corrigendum 06, Smart AC Cooled racks are required at Zonal nodes to conform with 65 degree temperature requirement.  However, in DHQ network along with required ILA nodes(In the DHQ Ring), we understand that the required AC cooling is available along with the uninterrupted DC Power Source for equipment's .  Request APSFL to kindly confirm.	No. If bidder is proposing OLA not supporting 65 Degree temperature, they need to supply rack with air-conditioning for maintaining equipment operating temperature.
9	Clarifications 03 Dt:10.5.2019	S.No.12	3	All equipment supplied as part of the Bid should run with AC power. About the racks, bidder needs to provide the required racks with the airconditioning and airflow mechanism to maintain the required environmental temperature even in case of power failures.	We understand that uninterrupted AC Power Supply will be provided at Zonal nodes. Bidder needs to consider the AC to DC rectifier at Zonal nodes.  Request APSFL to kindly confirm.	Yes uninterrupted AC power will be provided for the DWDM/OTN equipment alone
10	Corrigendum 06, Dt:30.04.2019	5. Switching Fabric Requirements Clause 2	8	The switching fabric should be strictly non-blocking for all the implemented cross connections.	We understand that strictly non-blocking 5T switching fabric is applicable for both OTN and Packet at DHQ & Zonal sites from day#1 . Request APSFL to kindly confirm.	Clause is clear.
11	Corrigendum 06, Dt:30.04.2019	5. Switching Fabric Requirements Clause 6	9	Supplied Equipment switching capacity should not be less than 5 Terabytes in day 1 across the network (District & Zonal Equipments)	We understand that in order to fully utilize the 5T backplane capacity of OTN DXC, the line and client modules in each slot shall be proposed such that APSFL shall be able to fully utilize the overall backplane capacity of 5T by simply installing additional traffic modules in vacant slots in future. There should not be any replacement or change of hardware in future to conform with 5T switching capacity requirement.  Request APSFL to kindly confirm.	Clause is clear.
12	Corrigendum 06, Dt:30.04.2019	2.2.1 General Requirements, Clause 32	6	Offered equipment should support as capability to expand 400 G single lambda in future.	We understand that the proposed hardware and line module shall be capable to support 400G line rate in future without any hardware change. For e.g. If Bidder is proposing a line module with 100G/200G single channel in the RFP, the same line module shall have software capability to tune to 400G in future without the need to buy any new line module.  Request APSFL to kindly confirm.	Clause is clear.

13	General	General	General		<p>For smooth operation of network, it is recommended not to use Raman amplifier as it requires very stringent fiber condition . For practical purpose, it is very difficult to maintain splice loss within operating limit of Raman for terrestrial network. Hence, performance of Raman amplifier deteriorates quickly and it may switch off the output power. Therefore, it is recommended to use only EDFA amplifier for network design and deployment as it provides more robust solution.</p> <p>Request APSFL to kindly consider and confirm this requirement.</p>	Bidder solution should factor in all the field conditions considering we are using Aerial fiber network and plan amplifiers accordingly
14	Clarifications 04 Dt:15.05.2019	S.No.3	1	Yes. The 100G ports asked in both DHQ and Zonal nodes has to be supplied from Day 1 as part of the solution itself. The two 100G pluggables also have to be considered as part of solution from day 1	As specified in "Corrigendum 06, Dt:30.04.2019, Annexure II – Price Bid", 150 quantity of 100G QSFP has already been asked which suffices the 100G client port requirement at 13 DHQ + 52 Zonal location i.e. 65 Nodes x 2 Pluggable =130 Pluggable. We understand that the quantity of 100G pluggable specified in SOR (Annexure II – Price Bid) will be used in 100G client cards. Request APSFL to kindly confirm.	Clause is clear. The two pluggables asked here need to be supplied from day 1 and is over and above what is asked in the price bid for SFPs
15	Clarifications 04 Dt:15.05.2019	S.No.26	3	Number of OLAs/ ILAs in DHQ rings are 20 (not 18).	<p>As per "Corrigendum 03, Dt:27.03.2019, Annexure I - APSFL District Nodes with Distances and Losses" and District Diagram on RFP Document (Page 11), there are 20 OLA sites. Request APSFL to kindly confirm.</p> <ol style="list-style-type: none"> <li>1. Marturu</li> <li>2. Vengalraonagar/ OLA2</li> <li>3. Gollapalli/ Manbolu</li> <li>4. Pakala</li> <li>5. Kalkiri</li> <li>6. Madanapalli/ Muddanur</li> <li>7. Gooty</li> <li>8. Somayajulapalli</li> <li>9. Srisailam</li> <li>10. Tripurantakam</li> <li>11. Satanapalli</li> <li>12. Bhimadolu</li> <li>13. Bommuru</li> <li>14. D.Polavaram</li> <li>15. VSS</li> <li>16. Kotapadu</li> <li>17. PB Palli</li> <li>18. Prathipadu</li> <li>19. Arikirevula</li> <li>20. Uppalapadu-OLA</li> </ol>	Yes. The understanding is correct
16	General	General	-	Avoiding use of Raman Amplifier	<p>It is understood there are many practical challenges or using Raman amplifiers in Terrestrial networks, such as:</p> <ul style="list-style-type: none"> <li>- Discrete loss points such as splice losses, connector losses, sharp bends, any stress point in fiber can severely decrease the available pump power thus reducing the gain of amplifier.</li> <li>- High back reflection resulting part of the pump energy propagating along the line returns to the pump laser diode which degrades the performance of the laser diode, and thus decrease the available pump power.</li> <li>- The optimum Raman Gain can only be achieved in case of ideal fiber conditions. In case of non-ideal fiber conditions, the achievable Raman Gain is severely deteriorated.</li> <li>- Since Raman scattering occurs within the transmission line itself, the quality of the line can dramatically affect the performance of the Raman amplifier and in particular, the achievable signal gain.</li> <li>- High Raman pump power passing through the connectors and splices can harm or degrade the connectors with time.</li> <li>- Issues with Laser Safety: The output power of Raman pump modules is much higher than typical power levels in EDFA-based systems, and in all cases is well above the designated safe level of radiation.</li> <li>- Issues with Automatic Shut Down: Even in the case of a fiber break, spontaneous emission power can still propagate along the system. This disrupts the conventional shut-down method based on Loss of Input Signal.</li> <li>- Issues with Automatic Restart Procedures: If a disruption occurs along the transmission line that causes the Raman amplifier to shut-down meaning there is no Raman gain along the transmission line, the signal powers to be detected are usually quite low, which can complicate the OSC detection mechanism.</li> </ul>	Bidder solution should factor in all the field conditions considering we are using Aerial fiber network and plan amplifiers accordingly