Annex G Description of routes, reliability levels (Technical Offer Form) Envelope 2

OP-EUI-ICTS-2020-001

OPEN TENDER FOR THE PROVISION OF A DARK FIBRE SERVICE FOR THE SEATS OF THE EUROPEAN UNIVERSITY INSTITUTE

Instructions

Guide to compilation of Annex G - Description of the stretches, Technical Offer reliability levels

The Company must submit along with its Technical Offer a table that summarizes the most important characteristics of the services it is called to deliver, which are the subject of this tender procedure. The Annex G spreadsheet describes two tables, one for each stretch (Stretch 1, Stretch 2), and a table summarizing the reliability indicators offered. The tenderer must fill in the spreadsheet relating to the 2 stretches, describing the characteristics of the segments that make it up, to be included in the Technical Offer Envelope 2.
It should be noted that a stretch may consist of multiple segments; a segment is constituted by the same type of fibre-optic cable, including the name and year of laying. • Please create several sections should there be several types of fibre optic cable.
The first 4 columns of the tables for Stretch 1 and Stretch 2 respectively contain the IDs of the fibre sections to connect the two seats Badia Fiesolana - Palazzo Buontalenti and Palazzo Buontalenti - Badia Fiesolana.
In detail:
• #Stretch: indicates the ID number of the stretch;
• #Segment: indicates the ID number of the segment making up that route, each segment consists of a single type of optical fibre. The tenderer must enter the lines necessary to describe all the segments of the case;
• Departure/Seat A: indicates the location of the Institute or the point from which the segment departs which must be highlighted on the GIS map;
• Arrival/Seat B: indicates the location of the Institute or the point at which the segment terminates/arrives. Each departure must be highlighted on the GIS map;
• Length (km): Length of fibre segment in physical km;
• Attenuation (dB): Attenuation in dB measured at 1550nm, as encoded by ITU-T G.650.1;
• Fusion Splices: for each stretch the total number of optical splices present must be indicated;
• Mechanical Connectors: for each segment the total number of optical connectors and/or attestation panels must be indicated;
• Polarization Mode Dispersion (PMD): estimate expressed in (ps/√km);
• Chromatic Dispersion (CD): measured at 1550 nm, expressed in ps/(nm*km);
• Fibre type: (G.652A, G.652B, G.652C, G.652D) Please create several segments should several types of fibre be used;
• Year of laying optical fibre: In the case of segments still to be produced, the field 'Year of Laying' must be compiled using the letters "N.D.";
• Trade Name / Manufacturer: the trade name and the name of whoever manufactured the optical fibre;
• Detailed path of the segment of optical fibre, providing in Annex G a pointer to a cartographic map in GIS format which specifies:
  - The route in a graphic form on the geographical map clearly showing the names of the streets travelled. The map must be provided in both GIS and pdf formats;
  - The laying procedure (trench, micro-trench, air channel, etc.), stating, in the event of a lack of homogeneity, the respective length;
• Vector: i.e. the vector type used (pavement, tunnel, railway line, water main, buried fibre, sewer, etc.) indicating also the percentage of use;
• Still to be realized: mark with a cross if the segment is still to be produced.

Should the stretch be composed of multiple segments, the tenderer is required to produce the overall values for these, based on what has been declared respectively for the segments in the “Total” row.
Conversely, for the table Reliability-Services the fields shown have the following meanings:
• "Half-yearly availability of the stretches" means the usability percentage of each stretch (e.g.: an availability of 66.66% means every 2 days of availability/up we have 1 day of unavailability/down of the stretch;
• "Intervention and reactivation time" or TTR (Time-to-Repair) means the time interval that elapses from the moment when the Institute reports a malfunction to the Company to a complete resolution of the malfunction, and therefore includes diagnoses and operations of restoration.
• "Response time to the disservice in minutes" must contain the response time of the Company's Management Service to a call from the Institute to report a malfunction.

#Stretch	#Segment	Departure/Seat A	Arrival/Seat B	Length (km)	Attenuation (dB)	Fusion Splices	Mechanical Connectors	PMD (ps/√km)	CD ps/(nm * km)	Fibre type	Year of laying	Trade name/producer	Detailed route on GIS map with description	Vector	Executed/Still to be executed
1	1	Badia Fiesolana													
1	2														
1	3														
1	4														
1	5		Palazzo Buontalenti												
TOTAL															

#Stretch	#Segment	Departure/Seat A	Arrival/Seat B	Length (km)	Attenuation (dB)	Fusion Splices	Mechanical Connectors	PMD (ps/√km)	CD ps/(nm * km)	Fibre type	Year of laying	Trade name/producer	Detailed route on GIS map with description	Vector	Executed/Still to be executed
2	1	Palazzo Buontalenti													
2	2														
2	3														
2	4														
2	5		Badia Fiesolana												

Reliability Indicators	Reliability values, the minimum required	Reliability values offered
Half-yearly availability of stretches	≥ 99.5 %	
Intervention and reactivation time for a blocking fault on a stretch for 80% of the faults on a half-yearly basis	Within 8 hours	
Intervention and reactivation time for blocking fault on a stretch for 100% of the failures on a half-yearly basis	Within 12 hours	
Intervention and reactivation time for non-blocking fault	Within 30 days	
Response time to disservice in minutes	15	