

#BetterTogether:

FIBER MAINTENANCE & TESTING STANDARD



#BETTERTOGETHER

Working across sectors at ENTRUST is essential for fostering innovation, efficiency, and overall success. When our different departments collaborate and share knowledge, they bring diverse perspectives and skill sets to the table. This cross-functional approach enables us to tackle complex challenges from various angles, leading to more comprehensive and well-rounded solutions. Ultimately, this collaborative approach empowers us to remain agile and cutting-edge for our customers. We are #BetterTogether..

THE PROJECT

One project in which we have worked cross-sector is our Fiber Maintenance and Testing Standard project for a client's renewable division. This project is a collaboration between our two newest sectors, EN Renewables and EN Communications. This project aims to establish a comprehensive Fiber Maintenance and Testing Standard for a client's fiber optic system, with emphasis on the significance of clean fiber connectors to ensure optimal performance.

The standard outlines dry and wet cleaning methods with specific testing requirements, as well as the commissioning and acceptance testing of fiber optic cables. It emphasizes the baseline Optical Time Domain Reflectometer (OTDR) measurements, including span loss, splice loss, and connector-to-connector loss. In addition, it covers optical return loss (ORL) and documentation of splice loss measurements with standardized forms.



Preventative maintenance is addressed to enhance system reliability and longevity of the fiber cables for the client. Understanding OTDR plots/traces for identifying anomalies is explained. ENTRUST provided a detailed maintenance schedule as well as forms for recording and tracking maintenance activities.

The standard guideline includes testing fiber strands before deployment and distinguishing coherent and non-coherent optical signals. Client-specific fiber optic cable standards, the need for chromatic dispersion (CD), and the necessity of polarization mode dispersion (PMD) testing are explained. Testing requirements are categorized into “basic” and “expanded” for fiber characterizations, ensuring a comprehensive evaluation.

By following the ENTRUST standard, the client will ensure reliable and efficient fiber optic systems in diverse applications, namely for renewable energy. This concise guideline serves as a crucial resource, promoting best practices for seamless network operation.



The collaborative efforts across sectors at ENTRUST are the bedrock of innovation, efficiency, and overarching client success. By harnessing the diverse perspectives and skill sets from our various departments, we address intricate challenges from multiple vantage points, resulting in comprehensive and well-rounded solutions. We are #BetterTogether and serving our customers with unparalleled one-stop-shop approaches.

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