MARKET ASSESSMENT OF POWER QUALITY PROBLEMS

R-113706

REPORT SUMMARY

The telecommunications industry has one of the highest growth rates and is undoubtedly impacting all aspects of our life. This study's purpose was to provide an in-depth analysis into power supply schemes associated with the communications industry and to identify possible applications for alternative power conditioning technologies. Since DC power is the preferred method for most telecommunication applications, future research should (1) investigate the feasibility of utilities providing uninterruptible DC power, (2) investigate use of DC power
within datacom facilities, (3) determine the most economical and reliable means of DC power for HFC/FTTx installations, and (4) evaluate the economics and performance of alternative energy storage for power quality needs.

This report addresses a specific market segment, the telecommunications industry , and provides a detailed assessment of power conditioning technologies and other solutions to power quality problems that could be economically justified.
This report presents an in-depth study into various telecommunication segments, describing traditional and evolving network infrastructure and corresponding power requirements. The document presents power conditioning alternatives and compares them to existing methods. The study shows that market potential for replacing existing power conditioning methods with the ones proposed is quite promising.