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**QUALITY REGULATION IN ELECTRICITY DISTRIBUTION.
ILLUSION OR HOPE?**

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Overview

In the last two decades, the structure of the electricity supply industry has been considerably modified as result of unbundling, liberalization and privatization. The need to set up adequate frameworks for regulating the unbundled network sectors in the restructured electricity market and the discontent with traditional regulation systems like rate of return has led regulators to implement schemes such as price-caps and yardstick. The main goal of the electricity distribution sector it is to supply Quality Service, but the diversity and characteristic of the distribution networks pose a huge problem of regulation to be studied. The economic regulation models (traditional, incentive or competition) of the electricity distribution sector do not consider, at least not correctly, the quality of electricity. The incentive and competition schemes provide strong incentives for efficiency, unlike the traditional regulation. However, the quality of the offered services is at risk because this system mostly focuses on costs reduction. Economically speaking, an eventual lead to quality degradations is equivalent to higher prices. Since customers value both price and quality, regulators will therefore need to assure an inclusion of both aspects within the regulation system. In other hand, the absence of a global definition of electric quality in distribution raises the issue of how to establish the quality costs production, and also, which are the logical, economic and technical bases of definition of the standards and the penalties used.

Method

This paper surveys the literature and models of Quality Regulation. We first present the function and role of the electrical distribution activity, and why it's relevant the electricity distribution quality. Second, we define Quality in the context of electricity distribution services. Third, we look how the quality is considered in some of the classics and newest regulatory models used in electricity distribution (rate-of-return regulation, price-cap regulation and yardstick competition). Finally, we discuss the mains problems of these regulatory models and the need to include quality regulation under the new economic regulation schemes.

Conclusions

The Quality of Electricity simply is left to the will of the distributor, or is administratively imposed by a command & control regulation, or if not it is hardly comparable due to the heterogeneity of the Distribution Networks. Therefore, the absence of robust incentive quality regulation and the lack of a global definition of electric quality in distribution highlight the interest to establish mechanisms of economic incentive regulation of Electric Quality in Distribution.

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Keywords

Electricity, distribution, regulation, quality.