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Structure and regulation of the electricity sector: an analysis of the Italian electricity market through the application of indices for measuring market power

Abstract

The electricity sector from more a decade is the subject of deep reform measures and it's perhaps more suitable than others sectors for its intrinsic complexity to be studied and evaluated to verify the ability of institutional actors to carry out and to complete the extraordinary organizational challenge which is a reform.

The aim of this paper is to verify if the process of reform of the electricity market can be considered finally finished, and if the results achieved can be considered satisfactory and if they are coherent with the objectives had targeted.

The debate that has accompanied the process of reform of the electricity sector has been particularly complex because of its value as a strategic sector, both for companies, as production inputs, both for the community, as an irreplaceable element of quality and well-being of life.

The liberalization process has not involved the total deregulation of the sector, but the definition of an adequate and reliable "regulatory framework" within which the companies can move freely. From this point of view, the construction of the overall design and implementation of reform has been and continues to be a great organizational challenge, whose the success depends essentially by the specific culture of policy makers, from their ability to drive the transition in a coherent way, and from their ability to respond to the substantial interests involved without being caught.

Possible solutions are many, but every one must be coherent, otherwise there may be a failure. The analysis begins with a brief reference to the characteristics of the electricity sector regulation and introduces the four phases of the electricity sector.

After analyzing the general problems related to the opening of the electricity market, the work has focused on the problem of market power in the electricity sector and in particular way in the Italian Power Exchange.

The Italian Power Exchange is an essential tool for the creation of a competitive market for electricity in Italy and it was founded with the aim of encouraging the emergence of efficient equilibrium prices, which enabling producers and consumers to sell and to buy energy where there is greater cost-effectiveness.

It isn't an easy task to identify the existence of market power in electricity exchanges and to try the exercise. Considering that aren't already developed a set of standardized procedures and accepted by all.

There are a wide variety of techniques, indicators and measures, some are drawn from the general economic theory, others developed specifically for the electricity sector, which are used by the different parties involved in monitoring.

In the last part of this work, through the above-mentioned indicators, and with reference to the day-ahead market for electricity, we proceeded to an analysis of the degree of market concentration and its level of efficiency and competition.

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