

A Case Study on the Efficiency of Electricity Distribution Companies Under an Incentive-based Regulatory Regime in Great Britain

MCC Economics & Finance, +(44) 7402
255584, pj@mceconomics.co.uk

Overview

Cost benchmarking is a useful tool for regulating monopolistic companies. It is used by many regulatory agencies to establish a cost allowance, which is then used as a base parameter for price regulation. Cost benchmarking helps regulators set a fair price control for monopoly companies, while also incentivizing efficiency in the regulated sector.

In this case study, we analyze electricity distribution companies in Great Britain from 1991 to 2017 in terms of the evolution of their efficiency under an incentive-based regulatory regime.

Methods

We use econometrics to compare companies on a like-for-like basis. Our analysis involves estimating models using OLS adaptations for panel data, as well as triannual cross-section models over the studied period, with the use of time dummy variables. The models have a dynamic component as we account for the new information over the 27-year period.

Results

We show how the industry (14 electricity distribution network operators) improved and how each company improved over time. We quantify these improvements and its benefits for electricity consumers in Great Britain in the millions of pounds.

Conclusions

The insight for other regulators and governments is that privatisation and regulation can produce significant benefits for consumers. Specifically, we show incentive-based regulation drove reductions in costs while maintaining a reliable electricity network.