The effects of changes in the regulation of the Colombian wholesale electricity market in a structural model of complex auctions

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We investigate the effects of a change in the regulation of the spot market for electricity in Colombia that took place in 2009. Specifically, the regulation switched from an auction mechanism with simple bids to one with complex bids to allow generators to separately bid on variable and quasi-fixed components. This greater flexibility was introduced to reduce production inefficiencies that arise from non-convexities in the cost structures of thermal generators. In this paper, we estimate and compute a structural model to quantify the effects of this change on allocation efficiency along with the effects on the wholesale price of electricity in Colombia. Consistently with previous reduced form evidence, we show that the production efficiency increased under the new dispatch mechanism, but prices increased

Fuente: https://www.banrep.gov.co/en/effects-changes-regulation-colombian-wholesale-electricity-market-structural-model-complex-auctions