

research highlights

ELECTRICITY SUPPLY

Corruption and reliability

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Electricity provision requires the combination of successive services into a bundle to be supplied to final consumers: power generation itself, electricity transmission, voltage and frequency control, and the sequence of tasks designated to ensure the necessary reliability. Because of these characteristics, it is considered to be a common pool resource (CPR) that has rival and non-excludable characteristics. Electricity provision is a rival good because individual consumption has an impact on the quantity available to the residual demand; it can also be considered non-excludable due to the difficulty in excluding those that do not pay for the service provided. Exploring the CPR features of electricity supply, Jacquelyn Pless from the University of Oxford, UK, and Harrison Fell from North Carolina State University, USA, evaluate the impact of bribes to secure electricity connection on the reliability of electric power supply.

The researchers use firm-level bribery and electricity reliability data from 72,617 manufacturing and service firms in 118 countries between 2006 and 2012. They estimate the impact of the propensity for bribing to receive electricity connection on both power outages (measured as the average number of monthly power outages) and commercial losses (total annual sales lost due to power outages). The model highlights the contrasting effect of the firms' individual incentives to secure an electricity connection by bribing, and the negative impact that overexploitation of the grid has on the quality and reliability of electricity supply. The results show that a one standard deviation increase in the propensity to bribe gives rise to 5 additional power outages per month, with a 7.5% increase in annual sales lost. These outcomes underline how policies to improve reliability have to tackle a number of social and regulatory aspects of electricity provision in addition to purely technical ones. □

Alessandro Rubino