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# Dimmed Lights: The Financial Toll of Political Interference in Indian Electricity

This memo summarizes research published in the [American Economic Review](#), authored by [Meera Mahadevan](#).

**The Bottom Line:** The study provides direct evidence of political interference in India's electricity sector, revealing how ruling parties manipulate billing to provide covert subsidies to favored constituencies, leading to significant financial losses for utilities. This political manipulation not only exacerbates economic inequality but also undermines the reliability of electricity supply, posing a major obstacle to economic development.

## The Context

India has long struggled with issues related to electricity supply, distribution, and billing accuracy ([Burgess et al. 2020](#)). While the financial losses suffered by the Indian electricity sector have been widely acknowledged, their magnitude (amounting to [\\$46 billion](#) annually) is too large to credibly attribute solely to technical losses or informal electricity theft. The Indian electricity sector, while predominantly state-owned, is ostensibly separated from direct political control via the establishment of independent regulators. However, anecdotal allegations of [political interference](#) have [persisted](#), albeit without direct evidence of widespread control. Given the crucial role of electricity in driving economic development and quality of life, the political manipulation of utility services can have widespread economic and social consequences. This memo summarizes key findings from a [recent study](#) published in the *American Economic Review* that provides direct evidence of the role of political corruption in exacerbating and propelling inefficiencies in the Indian power sector.

## The Research

The study addresses, first, the question of whether there is political interference in the pricing and distribution of electricity in India. Second, the mechanisms through which this may occur, and finally, the costs that this may impose on the economy. The study innovates by using satellite nighttime lights data, along with administrative electricity billing records from West Bengal. Using multiple datasets to study the same variable — electricity consumption— allows for verification of the accuracy of administrative data and the identification of any anomalies. The study investigates how ruling political parties manipulate electricity billing to benefit their constituencies, providing covert subsidies to their voters. The paper further studies the distributional consequences of political manipulation on the electricity utilities, consumers, and the economy.

## Key Findings

- **Political Manipulation of Electricity Billing.** Politicians in power manipulate electricity billing to benefit their constituencies. Local officials underreport electricity usage by as much as 40% for constituencies aligned with the ruling party. The billing data from West Bengal reflects a large number of anomalies that indicate tampering, including a disproportionately high number of bills that report consumption figures in multiples of ten.
- **Overconsumption in Ruling Party Constituencies.** In addition to the fact they consume more than is reported in their bills, constituencies aligned with the ruling party consume substantially more electricity than they would have in the absence of misreporting, as a normal demand response to receiving a subsidy. This phenomenon can be observed for all states in India due to the advantage of using satellite nighttime lights to study actual electricity use.
- **Covert Subsidies to Favored Constituencies.** Favored constituencies therefore pay only 60% of their actual electricity consumption. Electric utility companies bear the financial burden of this underreporting.
- **Significant Financial Losses.** The study estimates a net efficiency loss of \$0.9 billion, with a \$3.5 billion loss for the electricity utility and a \$2.7 billion gain for the favored consumers. This manipulation worsens reliability of electricity supply, leading to more frequent power cuts and hindering broader economic development.
- **Losses may be far greater.** The study focuses on West Bengal, but presents evidence that these practices may extend to other states in India. The losses in West Bengal, when extrapolated to the rest of the country, provide a more plausible explanation for the magnitude of utility financial losses, which surpasses what technical leakages and direct electricity theft could credibly explain.

## Why This Matters

The findings underscore how corruption in public utilities leads to immense financial inefficiencies and the deterioration of public service provision. Losses faced by electric utilities have a direct impact on the reliability of service, leading to frequent outages, a critical constraint to economic growth.

Distributional impacts of political subsidies can significantly exacerbate economic inequality. The benefits of this corruption disproportionately accrue to politically influential urban constituencies, while key groups — such as small rural commercial establishments — see no benefit at all. The financial losses to utilities, estimated in the billions of dollars, not only cause widespread electricity supply disruptions but also lead to costly bailouts. These bailouts divert significant taxpayer funds away from other critical areas of development and economic investment, exacerbating the long-term impact of such corruption on the broader economy.

The manipulation of electricity billing may be insidious in that it is difficult to detect through on-the-ground audits. This manipulation changes the way we view and trust administrative data, showing that even in sectors supposedly insulated from political influence, such data can be subject to tampering.

## Who Should Care

This research is relevant to policymakers, utility regulators, voting citizens, and anti-corruption agencies because of the large inequalities selective/hidden subsidies create, as well as the large efficiency losses to the utility, and the economy more broadly.. Even citizens supposedly benefiting from these "subsidies," suffer from the poor electricity quality and frequent power outages that result from political manipulation. Policymakers must be concerned with the massive efficiency losses caused by covert subsidies, which ultimately lead to costly bailouts with insidious, wide-ranging impacts on other crucial public goods. Utility auditors should not rely on administrative data alone, as that risks overlooking substantial corruption hidden within the system. To check for anomalies, using remotely sensed data to verify on-the-ground estimates can be a powerful tool in detecting problems.

## Questions To Be Answered Next

- **Increasing Transparency in Utility Management:** How can oversight mechanisms (such as regular remote sensing data) and better technology (such as smart meters) in the electricity sector be improved to prevent political manipulation of utility billing?
- **Improving Incentive Structures to Prevent Corruption:** What institutional changes would help restructure incentives away from distortionary and corrupt practices in service delivery, particularly in contexts where electricity and water are state-owned?
- **Improving Citizen Information:** Are there cost-effective ways of improving citizen information and understanding about electricity pricing and its impact on service delivery that would lead to greater political accountability?