**How Much Do Power Sector Distortions Cost to South Asia?**

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**Overview**

Electricity shortages are recognized as one of the biggest constraints to South Asia’s development, but the available assessments of the costs of energy sector distortions are partial and misleading. These assessments consider a narrow definition of the power sector. They including generation, transmission and distribution, but they omit upstream distortions in coal and gas, and downstream distortions from lack of access to electricity. Importantly, current assessments focus on fiscal costs. But when a rural household lacks access to electricity, or when the atmosphere is polluted by coal-fueled generating plants, there is no fiscal cost.

This study offers a comprehensive assessment of the economic cost of energy sector distortions in Bangladesh, India and Pakistan. It uses microeconomic data – from utilities, households and firms – to estimate key parameters in each country. It then uses these parameters to generate precise estimates of the cost of regulatory, institutional, and social and environmental distortions. The study shows that the overall cost of distortions is almost one order of magnitude higher than generally assumed based on their fiscal burden, and some of the costliest distortions are both upstream and downstream.

**Methods**

Energy supply and demand analysis based on error correction model

Econometric analysis on the impact of lack of reliable access to electricity on firms’ productivity and households’ welfare based on fixed effects IV model

**Results**

First, we estimate supply and demand for coal, gas and electricity in Bangladesh, India and Pakistan.

Second, we construct counterfactual market equilibriums assuming existing institutional, regulatory and environmental distortions are removed.

We find the welfare costs of distortions measured as producer and consumer surplus changes are between 7 -9 percent of GDP a year in the three South Asian countries.

**Conclusions**

The findings imply that power sector reform should be a top priority because few other reforms can quickly yield economic gains of a similar magnitude.  Reforms would also reduce the need for massive investments in generation, because capacity is poorly utilized at present.  But a narrow focus on liberalizing the price of electricity should be avoided. This is because regulatory distortions are often not the most important source of economic cost and in the absence of institutional reforms, the market equilibrium is highly inefficient.  Because removing regulatory and environmental distortions would lead to a sharp increase in the price of electricity, rapidly improving efficiency and providing targeted social assistance to poor and vulnerable households should be a priority.

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