

Captive Power Generation, Grid Connectivity, and Household Welfare in Bangladesh

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Extended Abstract:

There is significant captive installed industrial electricity generation in many developing countries as market response to unreliable electricity supplies from state-owned utilities. We develop a Dynamic Stochastic General Equilibrium (DSGE) model to examine the consequences of allowing the Bangladeshi Captive Power Plants (CPPs) to sell their excess output to the national grid under government-regulated market prices. We find that opening the grid for CPPs would decrease the long run industrial output and the GDP due to market inefficiency. Our results also show that the Bangladeshi economy would be more vulnerable to oil price shocks when the CPPs are connected to the national grid. We recommend that to minimise energy market distortions, the government should not open the grid for CPPs, but instead consider alternative reform measures such as taking steps to reduce price distortions and ensuring a competitive market environment.