

## Evaluation of the reform in Turkish electricity sector: A CGE Analysis

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Turkey's electricity market has undergone extensive reform since 2001 through market liberalization, unbundling, privatization, and establishment of organized power markets, retail market opening, and the establishment of an independent energy regulatory authority. We employ a static computable general equilibrium (CGE) model to test the impact of power sector reform on the economy. We construct Turkey's social accounting matrix (SAM) for 2010 by using technological coefficients from 2002 input-output tables – the most recent published by Turkey's statistics agency, but opt for actual values for energy accounts in SAM using data published by the International Energy Agency and Turkey's energy regulator. Major findings suggest reform has for a major part been beneficial to the economy. We find out that gross domestic product (GDP) deviates by 0.35% from the baseline when monopolistic rent is reduced in all state-run power companies simultaneously. For the first time, the impact of the establishment of a day-ahead power market (DAM) and privatization of state-run electricity utilities on the economy is tested, with findings suggesting both reform elements affect the economy positively. Larger participation of state-run electricity companies in the DAM generates a positive effect similar to that of privatization, with the GDP turning around 0.2-0.3% above its baseline level after each shock.