# Alberta's electricity futures market: An empirical analysis of price formation

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**Abstract:** Alberta operates an energy-only electricity market, which allows the unilateral exercise of market power to create investment incentives and resolve the 'missing money' problem. This stands in contrast to other jurisdictions that have implemented administratively complex capacity markets to ensure adequate supply. A key feature of Alberta's market is its futures market, where contracts that settle against realized spot prices are exchanged. The futures market enables generators to mitigate revenue volatility and allows buyers, including retailers, to hedge against price spikes. The futures market also aids in competitive price formation by diminishing the incentive to exercise market power in the spot market. Our empirical work explores Alberta's electricity futures market in two main areas: the relationship between futures and realized spot prices, and the evolution of futures prices influenced by expected spot market conditions. We find that (i) electricity futures prices do not provide an unbiased forecast of spot prices, (ii) a portion of the realized futures premium can be explained by information that is obtained after the futures price has been set, and (iii) futures prices appear to efficiently reflect changes in available information.

Keywords: energy-only electricity markets, futures markets, price formation

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