What is price discovery achieving in the New Zealand electricity market ?

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Abstract :

Wholesale electricity markets solve a complex allocation problem: electricity is not storable, demand is uncertain, and production involves dynamic cost considerations and indivisibilities. The New Zealand wholesale electricity market attempts to solve this complex allocation problem by using a price and quantity discovery mechanism that ends one hour before dispatch. We document behavior during price discovery consistent with the intended goal of promoting dynamic allocative efficiency but also find that prices typically increase along the process. We model how information generated during price discovery can both increase allocative efficiency and market power. The model is used to disentangle the effect of information on market power and efficiency.