

What is the main question(s) raised in the paper (the issue)?

When it comes to the decision on power consumption, do firms respond to the price incentives provided by programs of utility companies? If they do, how much do they respond to the price incentives?

Why should we care about it (the significance)?

If firms would respond to these programs, utility companies and the government can better estimate or guide energy consumption in advance. Therefore, utility companies could lower their cost by arranging the timing of generating, purchasing, or distributing energy thus being more efficient and competitive. Besides, utility firms could be able to coordinate power consumption between industries or firms and stabilize the grid if they can foresee a peak demand, it is especially important in Taiwan as we just experienced two national blackouts in May.

What is the author's answer (the findings)?

First, the pseudo cutoff is able to differentiate that a bid wins an auction or not. In addition, authors find that the mean and the maximum of electricity consumption would be much lower if a firm wins an auction. Also, the consumption pattern has a great discontinuity around the cutoff. These implies that firms do respond to the price incentive provided by these programs. Regression results with different model settings as well indicate the same perspective.

How did the author get there (the strategy)?

Authors obtained the data from 2018 to 2019 from utility company. Without detailed information of auctions, authors construct a pseudo cutoff in order to conduct further analyses.

Even the difference between original bids in an auction may be small, winning an auction or not might substantially affects the power consumption decision of firms. Authors apply RDD in order to capture this effect.