Rate Design Market Potential – Entergy New Orleans

We analyzed five different revenue neutral rate designs to estimate how changes in electric prices would affect overall consumption and peak demand. To do so, we rely on existing evidence on customer response to changes in prices and participation trends from similar rate designs.

* Key question: What are the potential energy and demand savings from changes in electric rate structures?
* Method: Design revenue neutral rate structures intended to provide customers with actionable price signals to shift or reduce consumption
  + Relies on price response results from previous studies to estimate changes in consumption
  + Analyses uses load research sample (provided by Entergy) and revenue/sales data from 2018 FERC Form 1
  + Only covers residential customer class
* Existing rate: two part rate, $8.07/month customer charge, flat summer and declining tiered energy rates
* Rates reviewed:
  + Time of use rate - $8.07/month customer charge, 2:1 summer to winter peak/off peak ration, 3:1 summer peak to off peak ratio
  + Inclining block rate - $8.07/month customer charge, two tier inclining block rate in summer and winter
  + Seasonal rate with higher customer charge – two scenarios ($25 and $50/month)

High-level results include:

* Under an optional time of use rate with on and off-peak pricing for both summer and winter, overall consumption declined by 0.5% for the entire class, with a summer peak period reduction of 4.4%. This assumes 25% of customers enroll in the time of use rate while remaining customer stayed on the existing rate.
* If the time of use rate were default instead of optional, we estimate a decrease in overall consumption of 0.9%, with a summer peak period reduction of 7.9%. This assumes 90% of customers stay enrolled in time of use rates and 10% opt back into the existing rate.
* If all customers were moved in an inclining block rate, we estimate a decrease in overall consumption of 2.1%
* If the customer charge on the existing rate for all customers was increased to $25 a month (from the current $8.07 per month), overall consumption would increase by 3.6%. If it were increased to $50, overall consumption could increase by 8.9%.

Our analysis shows that time of use and inclining block rates would marginally reduce consumption, while also providing a price signal to customers to engage in energy efficiency programs and behavior. The two-part rates with higher customer charges would lead to higher consumption overall and a poor price signal to conserve electricity and engage in energy efficiency programs.