Hi AD,

To test the hypothesis that customers’ price sensitivity is a factor that affects churn, we would need to model churn probabilities of customers, and derive the effect of prices on churn rates.

The following dataset will be needed;

1. Customer Dataset – This would contain all the information about PowerCo's customers.
2. Churn Dataset – This dataset should contain information about customers who have either left or continued using PowerCo.
3. Historical Price Dataset -  This dataset will contain information about the price of electricity and gas each customer has been charged at a granular level.

Once the above datasets become available, the work plan will be;

1. First, define and calculate price sensitivity.
2. We need to prepare the data and engineer features
3. Then, we can test our hypothesis using a binary classification model
4. We would choose the model from one of the tested algorithms based on the model complexity, the explainability, and the accuracy of the models.
5. With the trained model, we would extrapolate the extent to which price sensitivity influences churn

Regards

Wilson